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EFFECT OF LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF NON-DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN MOMBASA, KENYA

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ABSTRACT

The purpose of the study was to investigate the effect of liquidity management on financial performance of non-deposit taking MFIs in Mombasa. The study specific objectives were to establish the effect of asset quality, capital adequacy, maturity gap and cash management on financial performance.. The study adopted cross-sectional descriptive survey research design. The target population of the study was seven non-deposit taking MFIs operating in Mombasa County. Unit of observation was 66 top managers and finance managers of the selected MFIs. The study utilized purposive sampling design and a sample of 58 respondents was selected by use of Fisher's statistical formula. The study utilized primary data collected by use of structured closed-ended questionnaires. Pilot test was conducted on data collection tools to establish validity and reliability. On data analysis, descriptive statistics and inferential statistics was employed to analyze collected data. Statistical Package for Social Science (SPSS) was the data analysis tool. Analyzed data was presented by use of frequency and descriptive tables. The study results revealed that loan portfolio is the major revenue source for MFIs. The study established that the Microfinance institutions have invested in real assets to improve asset quality. The study concluded that the microfinance draws its funding from equity and external borrowing. Further, it was concluded that the microfinance had adequate total asset reserves to cover its financial needs and the microfinance capital base would be affected by loss of income-generating activities. The study recommended that the management of microfinance institutions should ensure liquidity is maintained to prevent potential loan issuance delays.

Key Words: *Asset Quality, Capital Adequacy, Maturity Gap, Cash Management*

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INTRODUCTION

Globally, the witnessed global financial crisis in the last decade has highlighted the significance of good asset liquidity management in the organizations. As funds become increasingly scarce and expensive, liquidity management becomes ever more important (Microfinance Information Exchange, 2016). The crisis has also underlined issues around leverage: while increased borrowing can help an institution increase its returns, it also exposes the institution to greater risk (Bouwman, 2017). But none of these issues is a simple switch that can be flipped on or off— they involve balancing priorities and, for most MFIs, managing a mosaic of funding sources and an increasingly complex set of balance sheets. Sound liquidity management is integral for any financial institutional stability and profitability, since deteriorating liquidity management is the most frequent cause of poor financial performance (Perways & Krishna, 2017).

The provision of microfinance loans to previously unbanked is a prime example of a context where liquidity creation takes place in spite of the lack of maturity transformation. Due to their inherently small sizes, microfinance loans would be considered liquid in Deep and Schaefer's model (due to maturities typically being shorter than 1 year), but the lack of ease and high potential cost associated with the liquidation of a loan. Given the lack of collateral and underdeveloped financial infrastructure, microfinance loans are therefore considered highly illiquid, using Berger and Bouwman's estimation (Berger & Bouwman 2016). By examining the structure of the balance sheet, MFIs can identify, measure, and manage financial risks-risks arising from the mismatch of asset and liability currencies (foreign exchange risk), maturities (liquidity risk), and re-pricing (interest rate risk).

A liquidity management crisis was evident in the global financial crisis of 2007–08 (Dang, 2016). This was the worst financial crisis raising fundamental questions about liquidity management (Basel Committee on Banking Supervision, 2016). During the crisis, banks were hit hardest by liquidity management pressures cutting back sharply (Basel Committee on banking supervision, 2016). Major commercial banks like Lehman Brothers collapsed. Other banks were bailed out by the governments. The impact on the stock market was very severe as stocks shed prices (Basel Committee on Banking Supervision, 2016). In many areas the economy faced a huge financial blow, resulting in house evictions, foreclosures and prolonged unemployment (Basel Committee on Banking Supervision, 2016).

In Africa, MFIs showed ROA of 3.1% with low portfolio quality (Microfinance Barometer Report, 2018). According to a 2007 Microfinance Information eXchange (MIX) publication, African MFIs reported higher percentages of portfolios at risk, as well as lower percentages of risk coverage and higher percentages of non-earning liquid assets (Ewool & Quartey, 2021). In the sub-Saharan Africa (SSA) MFIs have been growing rapidly at a yearly rate of 10 percent in the last two decades (Chikalipah, 2017). Markedly, not only is microfinance the industry that is increasingly becoming the core of financial inclusion, but also it is an important instrument of consumption smoothing among the poor in the SSA region.

Kenyan microfinance institutions have experienced significant growth from the period 2013 to 2018 (Kinyua, 2017). There has been a lot of transformation in terms of an increase in innovations of new services, growth in the number of customers, and diversity in the range of services and products offered (Central Bank of Kenya, 2020). According to AMFI (2021), net loan portfolio in the MFI sector increased by 13.3% in 2018 however, there was a decrease before tax that decreased by 19% between 2017 and 2018. In a survey conducted by AMFI in late May 2020 MFIs faced constrained working capital due to low repayment hence affecting the liquidity levels. According to AMFI (2021) as at 31st December 2020 the loan loss reserve stood at Ksh4.75B and write offs stood at Ksh395.91M with 6,998 number of loans written-off

during the period. In the same period there was Ksh65.99B total liabilities. In Mombasa, there are 16 fully-pledged branches with an outstanding loan portfolio of Kshs. 2,031,554,311.77 (AMFI, 2021).

Statement of the Problem

In Kenya there has been a great increase in non-performing loans in non-deposit taking MFIs over the last two decades, leading to a rise in liquidity management problems. As a result, the investment decisions of the organization are negatively affected leading to poor financial performance of the MFIs (AMFI, 2021). Moreover, in Kenya, unlike banks, MFIs do not have access to the lender of last resort that is the CBK. Consequently, in times of market difficulties and financial constraints MFIs have nowhere to get cash from. This makes MFIs more prone to liquidity shortage, and no matter how small the liquidity need is or how small the microfinance enterprise is, lack of liquidity can cause great damage to any microfinance bank.

Njeru (2016) focused on investigating liquidity management in the context of deposit taking Saccos in Kenya. However, the study focused on Saccos and not MFIs. However, the reviewed studies have mostly concentrated on commercial banks and SACCOs and very scant empirical exists on liquidity management in the context of Microfinance institutions. Moreover, research on Non-deposit taking MFIs is scant yet it is this cluster of MFIs that is greatly affected by liquidity management issues since they receive no customer deposits. The current study sought to investigate the effect of liquidity management on financial performance of Non-deposit taking MFIs in Mombasa, Kenya.

Research Objectives

The study investigated the effect of liquidity management on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya. The specific objectives were;

- To establish the effect of asset quality on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- To determine the effect of capital adequacy on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- To establish the effect of maturity gap on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- To establish the effect of cash management on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya

The study was guided by the following hypotheses;

- **$H_0$1:** Asset quality has no significant effect on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- **$H_0$2:** Capital adequacy has no significant effect on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- **$H_0$3:** Maturity gap has no significant effect on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya
- **$H_0$4:** There is no significant effect of cash management on financial performance of non-deposit taking Microfinance Institutions in Mombasa County, Kenya

LITERATURE REVIEW

Theoretical Review

Liquidity Preference Theory

The theory was proposed and developed by John Maynard Keynes in 1936. Keynes described liquidity preference theory as individuals' value money for both the transaction of current business and its use as a store of wealth (Bibow, 2015). Thus, individuals will sacrifice the ability to earn interest on liquid cash that individuals want to spend in the present, and that individuals want to have it on hand as a

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precaution. On the other hand, when interest rates increase, individuals become willing to hold less cash for these purposes in order to earn a profit**.**

Shift Ability Theory

Shift Ability Theory was proposed by Moulton in 1918. This theory suggests that the liquidity of an institution is maintained when such institution holds assets which could be easily sold or converted to other investments for cash. This assertion contends that the liquidity level of banks is capable of improving if the banks are always in possession of assets to sell as this is good for the proper functioning of the banks. Therefore, the theory contends and recognizes that a shift ability, transferability or marketability of the assets of financial institutions serves as a basis in ensuring their liquidity. Shift Ability Theory is of the view that securities held by financial institutions that are highly marketable or transferrable becomes a vital source of bank liquidity (Maaka, 2016).

Life-Cycle Theory

The life-cycle theory considers the nature of microfinance institutions from an institutional evolutionary perspective. It argues that most MFIs change capital structure as they mature, evolving from NGOs in their infant and youth stages, to eventually becoming full-fledged financial institutions in later stages of maturity (Farrington & Abrams, 2016; Helms, 2016).

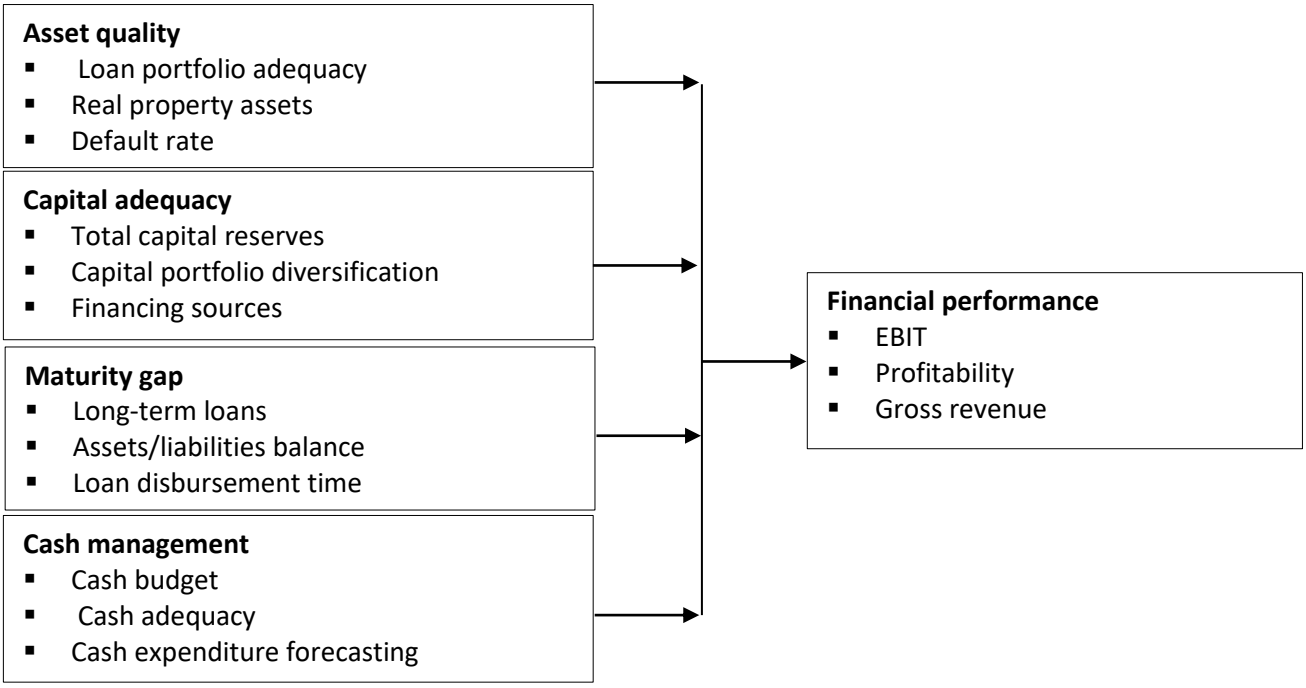

Figure 1: Conceptual Framework

Review of Literature on Variables

Asset Quality

The ratio of provision for bad debts to loan advances to customers is adopted as a proxy for asset quality. This measure reflects changes in the health of the bank loan portfolio and credit quality. Thus, it is also an indicator of credit risk in banks. Credit risk is the risk that an asset or a loan becomes irrecoverable in the case of outright default, or the risk of delay in the servicing of the loan (Heffernan, 2016). Credit risk can have crippling effect thus leading to insolvency (Bessis, 2016). The higher the provision for bad debt to loan advances ratio, the higher the credit risk and the

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higher the accumulation of unpaid loan and interest. Additionally, present value of the asset declines, thereby undermining the solvency of a bank. According to Kosmidou (2016), poor asset quality can have adverse impact on MFI's profitability by reducing interest income revenue.

Capital Adequacy

Capital adequacy describes the sufficiency of the amount of equity that can absorb shocks that financial institution may experience. It is expected that the higher the Equity to Asset ratio, the lower the need for external funding and therefore the higher the profitability of the financial institution. In addition, well capitalised financial institution faces a lower cost of going bankrupt which reduces their cost of funding (Kosmidou, 2016). Banks with higher capital to asset ratio are treated as relatively secure and tend to have a better margin of cushion, remaining profitable even during difficult economic times. Conversely, financial institution with lower capital adequacy are considered riskier compared to the highly capitalized banks.

Maturity Gap

The main cause of liquidity risk is the maturity imbalance between assets and liabilities. The majority of the assets are funded by deposits most of which have a lifespan of one year or less with a possibility to be called at any time. This situation is known as the imbalance between assets and liabilities or liquidity gap. This imbalance created by this assets and liabilities at any one time or period can be examined with the help of the maturity gap between assets and liabilities. For this study maturity gap will be measured as banks advances to customers over customer deposits. Higher liquidity gap might create liquidity risk to most MFIs in Kenya (Central Bank of Kenya, 2013). Maaka (2016), found that profitability of the commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage.

Cash Management

Pandey (2016) describes cash management as the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. Atrill (2016), there is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold. The assertion by (Ross et al., 2008) that reducing the time cash is tied up in the operating cycle improves a business's profitability and market value furthers the significance of efficient cash management practices in improving business performance.

Financial Performance

Financial performance is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability. It is measured through various business-related formulas that allow users to calculate exact details regarding a company's potential effectiveness.

Return on Assets is the measure of efficiency which determines how well the banks use its scarce resources to generate profits. It is the ratio of net income to the total asset. A higher ratio is an indication of a better financial performance. This ratio has been used in similar studies by Athanasoglou, Brissimis and Delis (2016); Perera, Skully and Chaudhry (2016). Capital Adequacy is very essential for the solvency and profitability of financial institutions. This is because the business of banking is risky due to the possibility that loans may not be paid back leading to financial losses to the bank. Banks are therefore required to have adequate capital, not only to remain solvent, but also to avoid the failure of the financial system. The current study uses Earnings before Interest and Tax, profitability, return on assets and gross revenue as financial performance metrics.

Empirical Review

Jensen (2018) did a study on liquidity creation in deposit-taking Microfinance institutions. Data is drawn primarily from the MIX database. Database

covers 3800 MFIs, with observations from 2004 to 2012, in 118 countries. A formula based on current bank literature is developed and adapted to the unique microfinance context. The results established that the levels of liquidity created by microfinance institutions have increased continuously in the recorded period, from $USD1.4Bn in 2004, to 6.5Bn in 2012, after deflation. Also, the growth rate of liquidity created to the growth rate of total assets is significantly higher in smaller MFIs than in medium-sized and larger institutions

Muthoga (2019) did a study on liquidity risks and profitability of commercial banks listed in Nairobi Securities Exchange. The specific objective was to evaluate the effect of net loan holdings, asset quality and liquid assets holdings on profitability of listed commercial banks at the Nairobi Securities Exchange, Kenya. The research adopted causal research design where the study population comprised all the 11 listed commercial banks at the Nairobi Securities Exchange, Kenya as at December 2018. The research used descriptive analysis and panel regression analysis for the data analysis. The panel regression analysis indicated that net loans holdings have a negative and significant effect on the profitability of commercial banks. Similarly, with respect to asset quality and profitability of commercial banks, the regression output revealed that the effect of asset quality on profitability is negative and significant.

Njue (2020) carried a study on liquidity management effect on financial performance of Microfinance banks in Kenya. Secondary data on the study variables were deduced from the audited financial statements of the MFIs under consideration. The data was obtained from the CBK website, CBK's Annual Supervision reports and also the AMFI annual reports for 5 years from 2012-2016. The desired population of the research consisted of all the twenty-six MFIs in Kenya that were members of AMFI and available at the CBK website. Primary data was collected using questionnaires whereas the secondary data involved analysis of the audited financial statements. The study used both descriptive and inferential statistics to evaluate the data. In descriptive analysis mean, and standard deviation of the responses was analyzed whereas, under inferential statistics, Pearson correlation, panel power correlation and regression analysis were adopted. The analysed data indicated that liquidity management practices fundamentally influenced the financial performance of MFIs in Kenya.

Mugo and Njeje (2016) investigated factors affecting liquidity risk management practices in microfinance in Kenya. The study adopted a survey research design. The target population included all the 128 employees from the 6 selected MFIs in Kenya. A sample of 96 employees were drawn and used in the study. Questionnaires were used to collect data from the field. The raw data collected was analyzed using the Statistical Program for Social Sciences (SPSS) Version 21.0. The hypotheses were tested using multiple regression analysis. The study found out that Micro Finance Institutions internal control systems, policies, Board oversight and risk monitoring significantly affects its liquidity risk management practices.

Njeru (2016) focused on investigating liquidity management in the context of deposit taking Saccos in Kenya. The target population was thirty licensed deposit taking SACCOs in Kenya, the sampling technique employed was simple random sampling and the sample size was 92 respondents. This study adopted a descriptive survey in soliciting information on effects of liquidity management on financial performance of deposit taking SACCOs in Kenya. Primary quantitative data was collected by use of self-administered structured questionnaires. The researcher also used secondary data derived from the audited financial statement of the SACCOs and the regulator (SASRA). The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Research hypothesis was tested by use of F- test statistics, to

determine relationship between variables, cross tabulation was undertaken with the help of SPSS and correlation was determined. Univariate and multiple regression analysis was employed to determine relationship between liquidity management and financial performance of SACCOs. Data was presented in tables, charts, figures and mathematical expressions. The results showed that even though SACCOS undertake strict cash flow forecast, there are external variables that can affect cash management which poses a greater risk in the operations of the institutions.

METHODOLOGY

The study adopted cross-sectional research design. Target population of the study was seven non-deposit taking Microfinance institutions operating in Mombasa County. According to CBK report (2021) in Mombasa there are 14 MFIs consisting of 6 deposit taking MFIs and 7 non-deposit taking MFIs. The unit of observation and analysis was top management and finance managers of the seven non-deposit taking MFIs.

The sample size of the study was selected by use of Fisher's statistical formula as follows;

$$n=\frac{N}{1+N(\alpha)^2}=\frac{66}{1+66(0.05)^2}=58$$

Where:

N = Total population

n = Sample population

α = Sampling error which is 0.05

Primary data was gathered with the use of structured questionnaire and secondary data collection sheet. The choice of questionnaire as a method of data collection for this study was attributed to the fact that questionnaires are cost effective when compared to face-to-face interviews. The study conducted pilot test on 10 respondents. The study adopted descriptive analysis and inferential analysis where the study data was analyzed, presented and interpreted based on the study objectives. The research findings were presented using frequency and descriptive tables. The multiple regression model adopted was in the form of;

$$\hat{y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$\hat{y}$= Predicted variable (Financial performance)

β_0 = Regression intercept

β_1-β_4 are the coefficient of the regression model

X_1= Asset quality

X_2= Capital adequacy

X_3= Maturity gap

X_4= Cash management

ε= Error term of the model

FINDINGS AND DISCUSSIONS

Descriptive Statistics

This study carried out the following descriptive statistics; mean, standard deviation of all the study variables as shown in the following sections.

Assets Quality

The first objective of the study was to establish the effect of asset quality on financial performance. They were required to do this on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results were presented in Table 1.

Table 1: Asset Quality

	N	Mean	Std. Deviation
The MFI's gross loan portfolio is adequate	56	3.87	.992
The MFI has invested in real assets to improve asset quality	56	4.13	.447
The rate of loan default in the MFI's is minimal	56	4.01	.340
Aspects of collateral are considered when issuing loans	56	4.87	.498

From Table 1 it was revealed that respondents agreed to the statement that MFI's gross loan portfolio was adequate as indicated by a mean of 3.87 and standard deviation of 0.992. The respondents agreed to the statement that the MFI has invested in real assets to improve asset quality

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as shown by a mean of 4.13 and a standard deviation of 0.447. The respondents agreed to the statement that the rate of loan default in the MFI's was minimal and that the aspects of collateral were considered when issuing loans as indicated by a mean of 4.01 and a mean of 4.87 respectively. The study results agreed with assertion by Kosmidou (2016) that poor asset quality can have adverse impact on MFI's profitability by reducing interest income revenue.

Capital Adequacy

The second objective of the study sought to establish the effect of capital adequacy on financial performance. The results were as presented in Table 2.

Table 2: Capital Adequacy

	N	Mean	Std. Deviation
Microfinance is funded partially by external borrowing and equity	56	4.12	.408
The MFI has adequate total asset reserves to cover its financial needs	56	3.89	.271
MFIs loss of income-generating activities will lead to capital base reduction	56	4.58	.617
The Microfinance has diversified its capital portfolio	56	4.73	1.106

From the findings in Table 2, respondents agreed to the statement that the Microfinance was funded partially by external borrowing and equity as indicated by a mean of 4.12 and standard deviation of 0.408. The respondents agreed to the statement that the MFI had adequate total asset reserves to cover its financial needs as shown by a mean of 3.89 and a standard deviation of 0.271. Respondents agreed to the statement that MFIs loss of income-generating activities would lead to capital base reduction (mean=4.58) and that the Microfinance had diversified its capital portfolio as indicated by a mean of 4.73 with a standard deviation of 1.106. The findings agreed with Bhattacharya and Thakor (2016) who argue that higher levels of capital mitigates risk, and increases the risk-bearing capacity of the intermediary, thus increasing levels of liquidity creation.

Maturity Gap

The third objective of the study sought to determine the effect of maturity gap on financial performance. The results were presented in Table 3.

Table 3: Maturity Gap

	N	Mean	Std. Deviation
Loan issuance to applicants is often delayed due to liquidity shortages	56	2.72	.651
The MFI relies on external financing to cover for liquidity gaps	56	4.10	.445
Often the MFI experiences assets/liabilities imbalance	56	4.23	.816
Maturity shifts of long-term loans occasions liquidity risk in the MFI	56	4.71	1.005

Table 3 showed that respondents disagreed to the statement that loan issuance to applicants was often delayed due to liquidity shortages as indicated by a mean of 2.72 with a standard deviation of 0.651. Further respondents agreed to the statement that the MFI relied on external financing to cover for liquidity gaps as indicated by a mean of 4.10 with a standard deviation of 0.945. Respondents agreed to the statement that often the MFI experienced assets/liabilities imbalance and that maturity shifts of long-term loans occasions liquidity risk in the MFI as indicated by a mean of 4.23 and a mean of 4.74 respectively. The study findings concurred with Maaka (2016) whose study found that profitability of the commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage.

Cash Management

The fourth objective sought to investigate the effect of cash management on financial performance. The results are as presented in Table 4.

Table 4: Cash Management

	N	Mean	Std. Deviation
The MFI undertake regular budget cash budget	56	4.83	.703
The MFI experiences cash shortages most of the times	56	2.60	.670
The MFI undertakes cash expenditure forecasting frequently	56	4.77	.895
The MFI has developed dynamic cash management policy to ensure cash adequacy	56	4.29	.929

Results in Table 4 showed that respondents agreed to the statement that the MFI undertake regular budget cash budget as indicated by a mean of 4.83 and standard deviation of 0.703. Findings showed that respondents disagreed to the statement that the MFI experienced cash shortages most of the times as indicated by a mean of 2.60 and standard deviation of 0.670. The findings also showed that respondents agreed to the statement that the MFI undertook cash expenditure forecasting frequently (mean = 4.77) and that the MFI had developed dynamic cash management policy to ensure cash adequacy (mean = 4.29). The study findings corroborated the findings by Njue (2020) which revealed that cash management fundamentally influenced the financial performance of MFIs in Kenya.

Correlation Analysis

The researcher further sought to establish the bivariate correlation between the variables. Pearson correlation result was the main item here. According to Sekaran and Bougie (2010), Pearson correlation analysis indicates the strength, direction, and significance of bivariate relationship among the variables. The results are shown in Table 5.

Table 5: Correlation Coefficient

		Asset quality	Capital adequacy	Maturity gap	Cash management	Financial performance
Asset quality	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	56				
Capital adequacy	Pearson Correlation	.679**	1			
	Sig. (2-tailed)	.000				
	N	56	56			
Maturity gap	Pearson Correlation	.605**	.716**	1		
	Sig. (2-tailed)	.000	.000			
	N	56	56	56		
Cash management	Pearson Correlation	.609**	.499**	.518**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	56	56	56	56	
Financial performance	Pearson Correlation	.401**	.398**	.260**	.490	1
	Sig. (2-tailed)	.014	.000	.005	.010	

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

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Table 5 revealed that the correlation between asset quality and financial performance had a positive linear correlation as shown by r of 459 and p-value of 0.014. The correlation between capital adequacy and financial performance was established by be positive and strong as indicated by r of 398 and p-value of 0.000. Further, the correlation between maturity gap and financial performance was positively correlated (r=0.260, P=0.000). The correlation results showed a positive correlation between cash management and financial performance (r=0.490, P=0.010).

Multiple Regression Analysis

Financial performance was regressed on liquidity management constructs of asset quality, capital adequacy, maturity gap and cash management. The results of regression analysis are presented as follows.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692[a]	.479	.396	.26265

a. Predictors: (Constant), Asset quality, Capital adequacy, Maturity gap, Cash management
b. Dependent Variable: Financial performance

The regression results in Table 6 indicated that the coefficient of determination (R^2) was 0.479. This implied that 47.9 percent of variance in financial performance is explained by liquidity management aspects of asset quality, capital adequacy, maturity gap and cash management.

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.587	4	.397	11.67	.001[b]
	Residual	1.725	51	.034		
	Total	3.311	55			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Asset quality, Capital adequacy, Maturity gap, Cash management

ANOVA results in Table 6 showed that the significance value in testing the reliability of the model for the relationship between the liquidity management and financial performance was obtained as 0.001 which is less than 0.05, the critical value at 95% significance level. Therefore, the overall model was statistically significant in predicting the relationship between the variables.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.991	.998		2.998	.000
	Asset quality	.427	.168	.059	2.542	.028
	Capital adequacy	.413	.118	1.009	3.509	.002
	Maturity gap	.263	.087	.157	3.023	.000
	Cash management	.565	.197	.404	2.868	.006

a. Dependent Variable: Financial performance

$$Y = 2.991 + 0.565X_1 + 0.427X_2 + 0.263X_3 + 0.413X_4$$

The regression results in Table 7 show that for a 1-point increase in liquidity management, financial performance is predicted to increase by 2.991, given that all the other factors are held constant at zero. Further in the model it showed that a unit

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increase in asset quality would lead to a positive increase in financial performance by 0.427. A unit increase in capital adequacy would lead to a positive increase in financial performance by 0.413, a unit increase in maturity gap would lead to an increase in financial performance by 0.263, and a unit increase in cash management would lead to an increase in financial performance by 0.565. The predictors had significance level of 0.05 and below meaning that they were statistically significant at P<0.05.

Discussion of Key Findings and Hypothesis Testing

The first objective of the study sought to investigate the effect of asset quality on financial performance of non-deposit taking MFIs in Mombasa County. Regression analysis conducted proved that there was a positively significant effect of asset quality and financial performance as shown by the values $\beta_1 = 0.427$, $t = 2.542$, $p<0.05$. The study concludes that a unit change in asset quality would lead to 0.427 unit change in financial performance of NDMFIs. The study results agree with assertion by Kosmidou (2016) that poor asset quality can have adverse impact on MFI's profitability by reducing interest income revenue. Further, since the $p<0.05$, the null hypothesis that asset quality has no significant effect on financial performance is rejected.

The second objective was to establish the effect of capital adequacy on financial performance of non-deposit taking MFIs in Mombasa County. Regression analysis result showed a positively significant effect of capital adequacy on financial performance as indicated by the values $\beta_2 = 0.413$, $t = 3.509$, $p<0.05$. The study concludes that a unit change in capital adequacy would lead to 0.413 unit change in financial performance. The findings agree with Bhattacharya and Thakor (2016) who argue that higher levels of capital mitigates risk, and increases the risk-bearing capacity of the intermediary, thus increasing levels of liquidity creation. On hypothesis testing, since $p<0.05$ null hypothesis that capital adequacy has no significant effect on financial performance is rejected.

Thirdly, the study sought to establish the effect of maturity gap on financial performance of non-deposit taking MFIs in Mombasa County. Regression analysis conducted showed that there was positive significant effect of maturity gaps and the study outcome variable as revealed by the values $\beta_3 = 0.263$, $t = 3.023$, $p<0.05$. The study concluded that a unit change in maturity gap would lead to 0.263 unit change in financial performance. The study findings concur with Maaka (2016) whose study found that profitability of the commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage. On hypothesis testing, since $p<0.05$, the null hypothesis that maturity gap has no significant effect on financial performance is rejected.

Finally, the study sought to investigate the effect of cash management on financial performance of non-deposit taking MFIs in Mombasa County. Regression analysis conducted showed that there was positive significant effect of cash management and financial performance as indicated by the values $\beta_4 = 0.565$, $t = 2.868$, $p<0.05$. The study concluded that a unit change in cash management would lead to 0.565 unit change in financial performance of non-deposit taking MFIs in Mombasa County. The study findings corroborate the findings by Njue (2020) which revealed that cash management fundamentally influenced the financial performance of MFIs in Kenya. On hypothesis testing, since $p<0.05$, the null hypothesis that cash management has no significant effect on financial performance of non-deposit taking MFIs in Mombasa County is rejected.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that the gross loan portfolio of the microfinance institutions is sufficient enough to ensure survival and growth of microfinance institutions. This meant that loan portfolio was the major revenue source for MFIs. It was concluded that the Microfinance institutions have invested in real assets to improve asset quality. This implied that the MFIs had diversified in real assets to improve their financial performance. The rate of loan default in the MFI's was minimal and that the

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aspects of collateral were considered when issuing loans.

The study concluded that the microfinance drew its funding from equity and external borrowing. Further, it was concluded that the microfinance had adequate total asset reserves to cover its financial needs and this meant that the microfinance capital base would be affected by loss of income-generating activities. This fact triggered microfinances to diversify capital portfolio.

The study concluded that microfinance issued loans to applicants smoothly without experiencing any delays because the MFI had enough liquidity. However, the microfinance relied on external sources of financing to ensure liquidity stability and cover for liquidity gaps. Despite the insecurity from liquidity problems, the microfinance frequently experiences imbalances in assets/liabilities. Also the maturity shifts of long-term loans has the potential to plunge microfinances into an abyss of liquidity hell.

The study concluded that the microfinances conducted cash budgeting regularly which made the MFIs navigate from potential cash shortages in the long run. In addition, it was concluded that the microfinance institution forecast its cash expenditure often and took corrective measures to ensure expenditure was as planned. Further, it was concluded that the MFIs quest to ensure cash adequacy came up with proactive cash management policy.

The study recommended that the microfinance institutions should strive to ensure that their gross loan portfolio is adequate for sustainability and growth of MFIs. The management of microfinance institutions should diversify to real assets investments with a view to improve asset quality. This will minimize the risk of MFIs running bankrupt due to overreliance to gross loan portfolio only. The findings revealed that the loan default is minimal in MFIs, however, the management of MFIs should continuously monitor the loan repayment trends to take corrective measures and review collateral requirements.

The study recommended that the management of microfinance institutions should widen its capital by focusing on the financing avenues in addition to equity and external borrowing. It is recommended that the microfinance should ensure adequacy of total asset reserves to cover its financial needs and should cushion itself from loss of income-generating activities.

The study recommended that the management of microfinance institutions should ensure liquidity is maintained to prevent potential loan issuance delays. This is important because loans form a fulcrum of MFIs growth. This could be achieved by the microfinance institution looking for financing externally to fill the liquidity gaps. The management of MFIs should ensure assets/liabilities balance is maintained and the long-term loans maturity is not shifted to cushion the microfinance institution from plunging in liquidity hell.

The study recommended that the microfinance institutions should carry out frequent cash budgeting with a view to enable MFIs navigate from potential cash shortages in the long run. In addition, the microfinance institutions should forecast their cash expenditure often to ensure any expenditure is pre-accounted for and hence minimize unnecessary expenditure which could eat up profitability. This could be made possible by developing a dynamic and proactive cash management policy.

Areas of Further Study

The study was delimited to investigating liquidity management and financial performance in the context of non-deposit taking microfinance institutions in Mombasa County. The random chosen predictors only explained variation in financial performance of non-deposit taking MFIs by 47.9 percent and this calls for further research on liquidity management by focusing on other variables to ascertain their contribution in financial performance of not only microfinance institutions but commercial banks in Kenya.

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