CREDIT PORTFOLIO MANAGEMENT AND LOAN PERFORMANCE OF MICROFINANCE INSTITUTIONS IN MOMBASA COUNTY, KENYA

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ABSTRACT

This study assessed the effect of credit portfolio management on loan performance in deposit taking Microfinance banks in Kenya. The study specific objectives are to establish the effect of credit portfolio planning, client screening, loan limit reduction and credit portfolio control on loan performance. The theories guiding the study were modern portfolio theory, Moral hazard theory, Value Based Portfolio Theory, and loanable funds theory. The study used a cross-sectional descriptive research design. The target population of the study was management of the 6 deposit taking MFIs which were licensed by CBK and had fully-pledged branches in Mombasa. The study unit of observation was management staff of MFIs drawn from finance, operations and credit departments. The study employed stratified sampling technique. The study employed Yamane formula to derive a sample of 54 respondents. The study used primary and secondary data. A structured questionnaire was used to collect the primary data. Descriptive and inferential statistics was used to analyze information generated from respondents. Descriptive statistics analysis included mean and standard deviation while inferential statistics includes correlation analysis and multiple regression analysis by use of Statistical Package for Social Science (SPSS) version 29. The inferential statistics revealed that credit portfolio planning, client screening, loan limit reduction, and credit portfolio control had a positive significant effect on loan performance. The findings of the correlation analysis results showed that client screening, loan limit reduction, and credit portfolio control is moderately and positively correlated with loan performance. The regression analysis finding also showed that client screening, loan limit reduction, and credit portfolio control has a positive and significant effect on loan performance. Further, it is concluded that the MFI monitors and evaluates disbursed credit regularly and that the credit of the borrower is reviewed continuously. Also the MFI has credit flow-up action plans in place and that the MFI requires collateral from high risk credit applicants. The study recommended that the management of deposit taking MFIs should make loan pricing decisions to promote credit repayment as it was found to have a significant effect on loan performance. The MFI should determine optimal loan recovery period prior to credit issuance.

Key words: Credit Portfolio, Client Screening, Loan Limit, Credit Portfolio Controls

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INTRODUCTION

Lending is the principal business activity for most commercial banks. The loan portfolio is typically the largest asset and the predominate source of revenue (Sifrain, 2022). As such, it is one of the greatest sources of risk to a bank's safety and soundness. Whether due to lax credit standards, poor portfolio risk management, or weakness in the economy, loan portfolio problems have historically been the major cause of bank losses and failures (Alattas & Tayachi, 2021). Financial institutions are increasingly measuring and managing the risk from their credit exposures at the portfolio level, in addition to the transaction level.

Credit portfolio management (CPM) is the practice of managing and monitoring all aspects of the company's credit portfolio (Visaria, 2019) Credit portfolio management is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the CPM process is so important, it is a primary supervisory activity. Assessing CPM involves evaluating the steps bank management takes to identify and control risk throughout the credit process. CPM provides banks with better tools for pricing and managing risks as well as for enhanced monitoring of the costs of their loan books. It also has the benefit that it promotes a more risk-adjusted and profit-focused culture in the loan origination business units of banks (Sifrain, 2022).

In MENA Countries, Alattas and Tayachi (2021) study's survey shows that low microfinance development was attributed to the economic transitioning pressure from social and political factors. Their study also reveals that MENA countries' performance on access to small, medium enterprises loans is relatively low compared to the financial sector depth of the other countries having similar GDP.

In Nepal, Malla, (2017) studied credit portfolio management in Nepalese commercial banks by applying qualitative and quantitative research methods. According to the study's findings, managing credit risk is currently the main responsibility of risk management in banks, and loan portfolio management is crucial for improving credit risk management.

In South Africa, the share of banking sector household mortgage lending to GDP fell from 26% in 2008 to 18% in 2020. Other forms of secured and unsecured household credit grew by around 2% of GDP between 2008 and 2013 but have since fallen back. Credit to non-financial corporations has also fallen somewhat since 2008 (Sibande & Milne, 2024).

In Kenya, MFIs contribute 45% of the country's GDP and that the sector has effectively managed to mobilise Ksh 200 billion deposits and assets worthy Ksh 210 billion (Hezron and Muturi, 2015). Broadly, over 76% of the financial institutions in the year 2018 noted that they had focused their debt recovery strategies on personal or household loans while 56% had focused their debt recovery strategies on the trade sectors (CBK, 2019). According to CBK annual reports released shocking evidence that non-performing loans for 2021 was high. According to the annual reports on bank supervision 2020, out of loan book of KES 2.02 trillion in 2020, 5.3 billion was non-performing loans.

In addition, Kenya Bankers Association and parliamentary select committee on finance disagreed on the likelihood rise in default rates due to rising interest rates. This does not only call for the financial sector to be prepared in tackling debt recovery but calls for different techniques of debt recovery to be put in place so that as the financial institutions are not caught unawares. The greatest challenge that banks faces is loan default by the customers. Local studies have been undertaken regarding non-performing loans which shows clearly that debt recovery is still a challenge (Africa Economic Outlook, 2022). These studies show that banks still struggle with debt collection leading to the loans going into default.

Despite the fact that microfinance has proven to be an effective and powerful tool for poverty reduction

due to its ability to penetrate the poorer strata of society, there have been challenges characterizing the strategies used by microfinance institutions in recovering debt from clients. The difficulty in recovering debts has resulted in a relatively slow rate of growth and has also kept the cost of credit high. The difficulty microfinance institutions have in recovering debt from clients makes it difficult for them to always have funds available to lend. This leads to a slower rate of growth than would have been desired by the institutions.

Statement of the Problem

In Kenya, the debt market has experienced explosiveness in the degree of NPLs that has risen to Ksh.292 billion. According to CBK annual reports, there is disturbing proof that non-performing loans have been steadily increasing from 2017 to 2021. As indicated in the bank annual supervision report (2021), the efficiency in the financing sector was low since there was a drop of 9.6 % in 2021 of pre-tax profits. There was also a slump in asset quality registration. The non-performing loans rate rose from 8.59 % in 2020 to 9.95% in 2021.

The survival of MFI's depends largely on their loan portfolio performance this is because MFI's generate most of their income from interest earned on loans extended to small and medium entrepreneurs. However, the loan performance of these banks depends on the loan portfolio management practices adopted by the banks. Giving of loans to customers comes with its own risk exposure (Ali, 2015).

For microfinance institutions, despite MFIs taking measures to mitigate non-performing loans problem, the institutions still have high default rates (20%) that have a negative effect on the performance of MFIs (AMFI, 2021). These institutions are recording high rate of default by their clients which presupposes that most microfinance institutions are not achieving the internationally accepted standard portfolio at risk of 3%, which is a cause for concern (AMFI, 2021). Loan default rate among the individual's borrowers was 13.7% in the year (2015) which is quite high

compared to group's borrowers at 5.9% (AMFI, 2021). Micro-finance sector loss hit Ksh 752,930,000 million for the period ended 2017, from a loss of Ksh 388,310,000 million over a similar period in 2016 (CBK, 2020).

Various studies have been done on credit portfolio in financial institutions. Mawele (2020) did an assessment on the debt recovery in banks in Zambia. Kipsang (2020) did a study on the effect of debt recovery strategies on loan performance of Fintech companies in Kenya. The study presents contextual gaps. Njenga (2017) investigated the impact of credit management techniques on loan performance in Kenyan deposit taking microfinance firms. Nyawira (2019) investigated debtor management and financial performance of Microfinance Institutions in Kenya. Kamar and Ayuma (2017) who studied on the effect of debt recovery tactics on the performance of selected financial institutions in Eldoret town and discovered a substantial link between debt recovery and performance. Owich (2021) did a study on debt management and loan performance of commercial banks in Kenya. However, despite extant literature having been done on debt recovery, very few studies have focused on debt recovery techniques in the context of Microfinance institutions and the implication on loan performance. The study sought to fill the research gaps by investigating the credit portfolio management and loan performance of Microfinance Institutions in Mombasa County.

Objectives of the Study

The general purpose of this research is to determine the credit portfolio management on loan performance of Microfinance Institutions in Mombasa County. The study was guided by the following specific objectives;

- To establish the effect of credit portfolio planning on loan performance of Microfinance Institutions in Mombasa County.
- To determine the effect of client screening on loan performance of Microfinance Institutions in Mombasa County.

- To investigate the effect of loan limit reduction on loan performance of Microfinance Institutions in Mombasa County.
- To find out the effect of credit portfolio control on loan performance of Microfinance Institutions in Mombasa County.

The research hypotheses were;

- **$H_0 1$:** Credit portfolio planning has no significant effect on loan performance of Microfinance Institutions in Mombasa County.
- **$H_0 2$:** Client screening has no significant effect on loan performance of Microfinance Institutions in Mombasa County.
- **$H_0 3$:** Loan limit reduction has no significant effect on loan performance of Microfinance Institutions in Mombasa County.
- **$H_0 4$:** Credit portfolio control has no significant effect on loan performance of Microfinance Institutions in Mombasa County.

LITERATURE REVIEW

Theoretical Framework

Modern Portfolio Theory

This study used the Modern Portfolio Theory (MPT), attributed to Harry Markowitz in 1952. The MPT is considered to be one of the most important and powerful economic theories in finance and investment. This theory is particularly widely used in portfolio and risk management. The MPT refers to an investment theory that allows investors to select and build assets portfolios that maximize expected return for a given level of risk. The theory assumes that investors are risk-averse. For a given level of expected return, they always prefer the least risky portfolio. The selection and the construction of investment portfolios are then based on maximizing the expected return and simultaneously minimizing the investment risk (Fabozzi, Gupta & Markowitz, 2002). The MPT argues that rational investors diversify their portfolios in order to optimize them (Pfaff, 2012). This can be achieved by choosing to use different amounts of investments which are carefully selected while taking into account how the investment is likely to be affected by the other elements of the portfolio rather than choosing individual securities (Francis & Kim, 2013). Each security has its own risks, which is higher than that of a portfolio containing diverse securities (Pfaff, 2012). The risk component of MPT can be measured, using various mathematical formulations, and reduced through the concept of diversification which aims to suitably select a weighted collection of investment assets that together show lower risk factors than investment in any individual asset. Diversification is known as the central concept of the MPT (Mangram, 2013).

Microfinance institutions (MFIs) which target low income people have to balance the different types of risks within their portfolio (Adugna, 2014). Credit risk, interest rate risk, and liquidity risk are the common risks faced by MFIs (Adugna, 2014). Credit risk results from the unwillingness or inability among borrowers to repay their loans. Consequently, MFIs portfolio deteriorates, revenues decrease, and operating expenses increase.

Portfolio management theory gives portfolio managers practical insight into how banks and financial institutions (BFIs) structure their loan portfolios and ensure their financial sustainability. This theory is based on making large profits while avoiding large losses and maximizing stakeholder value by emphasizing sound and high-quality institutions. Furthermore, loan portfolio management is critical for lenders, regulators, and depositors to understand how banks optimize capital and spread risk through loan portfolio diversification. Loan strategic classification, portfolio risk concentration measurement, loan portfolio concentration reduction, and portfolio risk management via a financial performance management system. The theory supports credit portfolio management which is the independent variable of the study.

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Moral Hazard Theory

The theory was propounded by Kenneth Arrow in 1963. The assertions of this theory can be traced to the insurance literature. Moral hazard denotes rise in the expected loss (probability of loss due to an event happening) due to individuals and firms behaving in a careless manner because of purchasing insurance. An insured firm may alter its behavior in a manner that increase the expected loss compared to what it would have been without coverage. Its current applications in economics are that "it's a behavior that increases loss as a result of insurance" (Rowell & Connelly, 2016)

Moral hazard concept has been broadly used and is intensely rooted in economics practice thus small attention has been given to the underlying moralistic and ethical notions as suggested by this particular expression or its use (Dembe & Boden, 2016). what should be clear about the term "moral hazard" is that a normative notion arises out of the language Suggesting the presence of a moral danger because of too much insurance provision (Hale, 2016). In the similar way, the study acknowledges the fact that the financial institutions strive to reduce the risk of having non-performing loans. Moral hazard theory supports this study by bringing in the idea that financial institutions through proper debt management techniques have a responsibility to ensure that all the debtors have the capability of repaying their debts as well as the institution meeting their obligations to their lenders. The notion and expectation that another party would likely bear the risk of default creates a moral hazard and eventually will contribute to crisis. The theory supports loan limit reduction variable in the study.

Value Based Portfolio Theory

The study will also be guided by Value Based Portfolio Theory developed by Markowitz in 1959. The value based portfolio theory explains that different components of portfolios play different roles in expanding the overall value of the total portfolio. The specific value gained from each component of the portfolio includes the ratio of contribution to the portfolio outputs like the resale value, safety, reliability and comfort. It also includes the value that customers get from a product in relation to inputs like the price and running costs that customers have to convey in exchange. The derived value of efficiency can be understood as the customers' return investment. Therefore, the debts that have created products offering a maximum customer value are similar to other alternatives which are efficient and experience little possibilities of default and vice-versa (Brealey, & Myers, 2016).

The theory suggests that debt recovery techniques from the perspective of the debtor, is determined by the value that the debt has added to the existing portfolio of investments. Since the 1980s, companies have productively employed a portfolio theory that is modern to market risk. Many companies are now using value at risk models to control their market and interest rate exposures. Unfortunately, however, although credit risk remains the biggest risk challenging most organizations, the duty of applying modern portfolio theory to credit risk has lagged (Lough, 2016). Financial institutions recognize how debt recovery techniques can adversely impact the performance of financial institutions. Due to this, most of the financial institutions are aggressively employing different approaches to debt recovery. The theory supports credit portfolio control variable in the study.

Loanable Funds Theory

This theory was developed by the economist Wicksell and D.H Robertson (1851-1926). Loanable funds refer to the amount of money that is demanded by the consumers and the amount of money that is available for supply by the lenders in an economic entity. According to Wenshen (2016) the rate of interest is determined at the point where demand equals supply of the funds. At this point there is enough opportunity, investors utilize that opportunity and invest more, while savers make more deposits with an expectation of higher interest, at this point the cost of credit is determined (Ngugi, 2016).

The theory creates a major impact to both savers and borrowers, since at the equilibrium position the two parties should be compensated (Emmanuele, 2017). Fluctuations in the rate of interest in a money market arise from a combination of various factors such as demand and the supply of loans and the availability of funds for lending (Nduati, 2017). The theory is linked to this study since it provides knowledge on loan limit reduction rate and the overall implication on debt recovery.

Conceptual Framework

Credit portfolio planning
- Loan pricing decision
- Loan recovery period
- Risk review
- Loan quantity determination

Client screening
- Credit history determination
- Credit worthiness analysis
- Credit disbursement
- Follow-up review

Loan limit reduction
- Repayment history
- Base line lending
- Max loan limit
- Credit limit methodology

Credit portfolio control
- Loan monitoring
- Credit review
- Follow up actions
- Collateral requirement

Loan performance
- Non-performing loans
- Asset quality ratio
- Loan delinquency
- Credit default rate

Independent Variables   **Dependent Variable**

Figure 1: Conceptual Framework

Empirical Review

Ssekiziyivu, Mwesigwa, Mayengo, and Nabeta (2017) looked at credit allocation, risk management and loan portfolio performance of MFIs in Ugandan firms. A cross-sectional research design was adopted which involved descriptive, correlation and regression approaches. Data were analysed through SPSS. Simple random sampling was used to select a sample of 40 MFIs from the population of 45 in Kampala and Wakiso districts. Results indicated that credit allocation and risk management had a significant relationship with loan portfolio performance. Results from the regression analysis showed that credit allocation and risk management significantly predicted 23.9% of loan portfolio performance.

Thuku (2017) investigated the factors affecting loan limit to small and medium enterprises in Kenya: a case study of agriculture sector in Nyeri County. A descriptive research design was employed to gather quantifiable information through the use of open and close-ended questions. The target population was 200 SMEs in agriculture sector that have been in operation for more than 3 years. Stratified random sampling was used to select a sample size of 67. Data was analyzed using descriptive statistics and Statistical Package of Social Sciences (SPSS). The findings of the study revealed that that majority of

the respondents agreed that the size of a firm and location affects access to finance and older firm (more than 3 years) have more experiences of applying for loans than younger firms below 3 years.

Kipsang (2020) did a study on the effect of debt recovery strategies on loan performance of Fintech companies in Kenya. This study used descriptive survey design approach to incorporate various elements of the study. A population of 121 managers was used to determine a sample size of 92 respondents. This study was based on descriptive research design. This study made use of stratified sampling tactic. In order to collect primary data from the respondents, a questionnaire was used for data collection. Descriptive statistics were instrumental in analyzing percentages and frequencies and inferential statistics deployed for analyzing correlation and regression analysis. The study results showed that there existed a significant and positive relationship between the study variables and loan performance.

Owich (2021) did a study on debt management and loan performance of commercial banks in Kenya. The specific objectives of the study included, establishing the effect of credit risk assessment, periodic loan review, loan collateral and early warning signs of loan delinquency affect loan performance of commercial banks in Kenya. The research design applied was causal research design. The target population of the research project was 108 managers from banks in tier II, and tier III. The research embraced purposive sampling to come up with a sample size of 85 respondents. The data collected from the questionnaire was analyzed using IBM SPSS version 21.0 software. The findings revealed that commercial banks loan performance aligns with the effectiveness of credit management practices evident in the banks.

Mutiria (2017) conducted a research on factors influencing the credit limits to small and medium enterprises: a case of Kiambu County, Kenya. A descriptive survey research design was adopted to carry out the study. The study had a population of 2, 750 SMEs in Kiambu county, out of which, a stratified sampling technique was used to pick a sample of 384 respondents. The sampling frame was adopted from office of economics and statistical data in Kiambu County. This study utilized primary data. Data was collected using structured questionnaire. The findings on types of SME financing revealed a significant relationship exists between types of SME financing and credit limits.

METHODOLOGY

The study utilized cross-sectional survey research design. The study used all 6 deposit taking MFIs which were licensed by CBK and had fully-pledged branches in Mombasa County. The study unit of analysis was top management staff of the 6 deposit taking Microfinance institutions drawn from finance, operations, and credit departments. The sampling frame was deposit taking MFIs which are licensed by CBK and have fully-pledged branches in Mombasa. A stratified sampling method was adopted. This study used Yamane's formula to obtain the sample size of 54.

Research data for this study comprised of both primary data and secondary data. The primary data was collected by use of closed ended questionnaires which were structured based on the research objectives. The secondary data was collected by use of secondary data collection sheet. Collected data was analyzed using Statistical Package for Social Sciences (SPSS) software version 29. Descriptive statistics in the form of mean and standard deviation was utilized to provide meanings to data collected. Inferential statistics such as linear regression and Pearson's correlation was used to establish the correlation between loan performance and data recovery techniques. The following linear regression model was adopted to test the statistical significance of the study predictor variables on dependent variable;

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

Where:

Y = Loan performance

β_θ = Regression intercept

$\beta_1 - \beta_4$ are the coefficient of the regression model

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X_1= Credit portfolio planning
X_2= Client screening
X_3= Loan limit reduction
X_4= Credit portfolio control
ε= Error term

FINDINGS AND DISCUSSIONS

Response Rate

The study focused on a total of 54 respondents and a total of 52 duly filled questionnaires were returned by the respondents yielding a response rate of 96.3%. The response excellent according to Bryman (2016) who posit that a response rate of 85% and above is excellent.

Descriptive Statistics Results

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

Credit Portfolio Planning

The first objective of the study was to establish the extent to which credit portfolio planning aspects affect loan performance. Respondents were required to do this on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results are displayed in Table 1.

Table 1: Credit Portfolio Planning

	Mean	Std Deviation
The MFI makes loan pricing decisions to promote credit repayment	4.79	1.306
The loan recovery period is determined by the MFI before issuance of credit	4.40	.955
The MFI reviews credit risk regularly for the borrowers	4.28	.295
The amount of credit to be advanced to the borrower is strictly determined by the MFI	4.99	.374

The results in Table 1 showed that respondents agreed that MFI makes loan pricing decisions to promote credit repayment and that the loan recovery period is determined by the MFI before issuance of credit as indicated by a mean of 4.79 and mean of 4.40 respectively. Respondents also agreed that the MFI reviews credit risk regularly for the borrowers (mean=4.28) and that the amount of credit to be advanced to the borrower is strictly determined by the MFI (mean=4.99).

Client Screening

The second objective of the study sought to establish the effect of client screening on loan performance. Data was collected through the Likert-scale measuring the level of agreement of the respondents with respect to the given aspects of client screening. The results are as presented in Table 2.

Table 2: Client Screening

	Mean	Std. Deviation
The credit history of the credit applicant is determined strictly by the MFI	4.89	.270
The MFI determines the credit worthiness of the applicant	4.58	.548
The MFI disburses credit only after the credit worthiness of the applicant has been determined	4.80	.897
The MFI continuously monitors and reviews the applicant even long after loan has been disbursed	4.92	.274

The results in Table 2 showed that respondents agreed that the credit history of the credit applicant is determined strictly by the MFI and that the MFI determines the credit worthiness of the applicant as indicated by a mean of 4.89 and mean of 4.58 respectively. Respondents agreed that the MFI disburses credit only after the credit worthiness of the applicant has been determined (mean=4.80).

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Respondents were in agreement to the statement that the MFI continuously monitors and reviews the applicant even long after loan has been disbursed (mean=4.92).

Loan Limit Reduction

The third objective of the study sought to establish the effect of loan limit reduction on loan performance. Data was collected through the Likert-scale measuring the level of agreement of the respondents with respect to the given aspects of loan limit reduction. The results are as presented in Table 3.

Table 3: Loan Limit Reduction

	Mean	Std. Deviation
Micro finance institutions have a maximum loan limits policy for new clients	4.92	.548
My micro finance institution has a baseline lending policy to new clients	4.71	.282
Limiting the amount of credit reduces cases of bad debt in case the borrower fail to pay	4.16	.540
My microfinance institution determines loan limit using past credit history	4.71S	.613

The results in Table 3 have shown that respondents agreed that Micro finance institutions have a maximum loan limits policy for new clients and that the micro finance institution has a baseline lending policy to new clients as indicated by a mean of 4.92 and mean of 4.71 respectively. Respondents also agreed that limiting the amount of credit reduces cases of bad debt in case the borrower fail to pay (mean=4.16) and that the microfinance institution determines loan limit using past credit history (mean=4.71). The findings agree with Thuku (2017) whose study established that loan limit has significant effect on loan performance of financial institutions.

Credit Portfolio Control

The fourth objective of the study sought to establish the effect of credit portfolio control on loan performance. Data was collected through the Likert-scale measuring the level of agreement of the respondents with respect to the given aspects of credit portfolio control. The results are as presented in Table 4.

Table 4: Credit Portfolio Control

	Mean	Std. Deviation
The MFI monitors and evaluates disbursed credit regularly	4.16	.555
The credit of the borrower is reviewed continuously	4.19	.308
The MFI has credit flow-up action plans in place	4.80	.619
The MFI requires collateral from high risk credit applicants	3.97	.456

The results in Table 4 have revealed that respondents agreed that the MFI monitors and evaluates disbursed credit regularly and that the credit of the borrower is reviewed continuously as indicated by a mean of 4.16 and mean of 4.19 respectively. Respondents also agreed that the MFI has credit flow-up action plans in place (mean=4.80) and that the MFI requires collateral from high risk credit applicants (mean=3.97).

Inferential Statistics

Multiple Regression Analysis

The primary objective of the following regression analysis is to determine the relationship between explanatory variables and the response variable.

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Data was regressed to determine the extent of the effect between explanatory variables and response variable as shown in the following sections.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734[a]	.539	.499	1.856742

a. Predictors: (Constant), Credit portfolio control, Loan limit reduction, Credit portfolio planning, Client screening

The table above shows the R^2 and the significance level of the model. There is a considerable positive correlation between the dependent and independent variables. The R value of 0.673 indicates a perfect link between the dependent and independent variables. Based on the R^2, the model is able to explain 53.9% of the changes in the dependent variable. The other 46.1% of changes in loan performance maybe clarified by other independent variables that were not used in the current study model.

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.458	4	28.365	13.742	.000[b]
	Residual	97.014	47	2.064		
	Total	210.472	51			

a. Dependent Variable: Loan performance
b. Predictors: (Constant), Credit portfolio control, Loan limit reduction, Credit portfolio planning, Client screening

The analysis of variance was used to examine whether the regression model was a good fit for the data. The F-critical (4, 51) the F-calculated was 13.742 which shows that F-calculated was greater than the F-critical and hence linear relationship between the credit portfolio management and loan performance. In addition, the p-value was 0.000, was less than the significance level (0.05). Therefore, the model can be considered to be a good fit for the data and hence it is appropriate in predicting the effect of the four independent variables on the dependent variable.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.289	.984		.294	.000
Credit portfolio planning	.150	.174	.143	.863	.004
Client screening	.063	.160	.065	.396	.036
Loan limit reduction	.184	.141	.223	1.301	.022
Credit portfolio control	.254	.242	.219	1.047	.006

a. Dependent Variable: Loan performance

$$Y = 0.289 + 0.150X_1 + 0.063X_2 + 0.184X_3 + 0.254X_4$$

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The equation established that considering all other independent variables constant at zero, loan performance of DTMFIs would be at an index of 0.289. Taking all other independent variables to zero, a unit increase in credit portfolio planning would lead to an increase in DTMFIs loan performance by 0.150. A unit increase in client screening would lead to a positive increase in loan performance of DTMFIs by 0.063, and a unit increase in loan limit reduction would lead to an increase in DTMFIs loan performance by 0.184. Further, regression results showed that a unit increase in credit portfolio control would lead to an increase in DTMFIs loan performance by 0.254.

Discussion of Findings and Hypotheses Testing

The study used p-values to test hypotheses and achieve the objectives of the study. The first objective of the study was to establish the effect of credit portfolio planning on loan performance. Credit portfolio planning was found to have a positive and significant effect on loan performance of (β= .254, p < 0.05). This implies that a unit increase in credit portfolio planning would lead to an increase in DTMFIs loan performance by 0.150. On hypothesis, since the p-value is less than 0.05, the null hypothesis that credit portfolio planning has no significant effect on loan performance is rejected.

The second objective sought to investigate the effect of client screening on loan performance of DTMFIs. Regression results showed that client screening had a positive and significant effect on loan performance of (β= .184, p < 0.05). It is concluded that a unit increase in client screening would lead to an increase in DTMFIs loan performance by 0.184. On hypothesis, since the p-value is less than 0.05, the null hypothesis that client screening has no significant effect on loan performance is rejected.

Third objective sought to investigate the effect of loan limit reduction on loan performance. Regression results revealed that loan limit reduction had significant positive effect on loan performance of (β= .063, p < 0.05). This implies that an increase in loan limit reduction by one unit increases loan performance by .063. The findings agree with Thuku (2017) whose study established that loan limit has significant effect on loan performance of financial institutions. On hypothesis, since the p-value is less than 0.05, the null hypothesis that loan limit reduction has no significant effect on loan performance is rejected.

Fourth objective was to determine the effect of credit portfolio control on loan performance of deposit taking MFIs. Regression results showed that credit portfolio control had a positive and significant effect on loan performance of (β= 0.150, p<0.05). It is concluded that a unit increase in credit portfolio control would lead to an increase in DTMFIs loan performance by 0.254. On hypothesis, since the p-value is less than 0.05, the null hypothesis that credit portfolio control has no significant effect on loan performance is rejected.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that credit portfolio planning has significant effect on loan performance in deposit taking MFIs. The deposit taking MFIs make loan pricing decisions to promote credit repayment. Also the loan recovery period is determined by the MFI before issuance of credit and the MFI reviews credit risk regularly for the borrowers. The study concludes that the amount of credit to be advanced to the borrower is strictly determined by the MFI.

The study concluded that client screening has significant effect on loan performance in deposit taking MFIs. The credit history of the credit applicant is determined strictly by the MFI and that the MFI determines the credit worthiness of the applicant. Results revealed that the MFI disburses credit only after the credit worthiness of the applicant has been determined and the MFI continuously monitors and reviews the applicant even long after loan has been disbursed.

The study concluded that loan limit reduction has significant effect on loan performance in deposit taking MFIs. Also the act of minimizing the amount of credit due to borrower reduces cases of bad debt

in case the borrower failing to pay. The deposit taking microfinance institution determines loan limit using past credit history. Micro finance institutions have a maximum loan limits policy for new clients and that the micro finance institution has a baseline lending policy to new clients.

The study concluded that credit portfolio control has significant effect on loan performance in deposit taking MFIs. Further, it is concluded that the MFI monitors and evaluates disbursed credit regularly and that the credit of the borrower is reviewed continuously. Also the MFI has credit flow-up action plans in place and that the MFI requires collateral from high risk credit applicants.

The study recommended that the management of deposit taking MFIs should make loan pricing decisions to promote credit repayment as it was found to have a significant effect on loan performance. The MFI should determine optimal loan recovery period prior to credit issuance.

The study recommends that the deposit taking micro finance should carry out robust credit scoring on the potential borrowers prior to loan issuance to minimize chances of default. Also the study recommends that the MFIs should seek mutual collaboration with credit reference bureaus by sharing information crucial to weed out borrowers with bad credit scoring. This would enhance MFIs' precision on borrower standings.

The study recommends that the management of deposit taking MFIs should make prudent decisions geared towards reducing the amount of credit due to borrower. This would greatly reduce the damage by the MFIs in case the borrower defaults. More precisely, the deposit taking MFIs should base their decisions on whether to give loan or to decline based on the borrower past credit history. The Micro finance institutions should set maximum loan limits policy for new clients.

The study recommended that the management of MFIs should invest in new technologies to monitor and evaluate disbursed credit on a regular basis. The credit borrower should be appraised continuously and where necessary, the MFI should require collateral as security from high risk credit applicants.

Suggestions for Further Studies

The study was delimited on credit portfolio management and loan performance. However, the credit portfolio management dimensions used in the study only explained 96.3% change in loan performance and this means that other studies should be done to determine the other credit portfolio management constructs not factored in the current study and ascertain their effect on loan performance not only in MFI sector but also in commercial banks.

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