

**DEBT COLLECTION MECHANISMS AND LOAN RECOVERY IN MICRO-FINANCE
INSTITUTIONS IN KENYA**

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**A RESEARCH PROJECT SUBMITTED IN THE SCHOOL OF BUSINESS, ECONOMICS AND
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DECLARATION

This research project is my original and authentic work, therefore it should not be submitted for examination for an award of a degree in any other University besides the author's degree award.

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DEDICATION

This project is dedicated to my dear wife Linda Achieng and my parents Joshwa Oluoch Ogango and Pheobe Anyango Oluoch who have been very supportive throughout the course of project writing. I highly appreciate the support they accorded me during the entire period of my education.

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ABBREVIATIONS AND ACRONYMS

ANOVA:	Analysis of Variance
CBK:	Central Bank of Kenya
DCA:	Debt Collection Agencies
DCT:	Digital Credit Technology
Dif.:	Difference
IPM:	Institution Portfolio Monitoring
KSHS:	Kenya Shillings
LRCV:	Loan Recovery
MFB:	Microfinance Bank
MFI:	Microfinance Institutions
NSE:	Nairobi Security Exchange
NPLs:	Non-Performing Loans
NACOSTI:	National Commission for Science and Technology and Innovation
SMS:	Short Message Service
SPSS:	Statistical Package for the Social Sciences
USA:	United States of America

OPERATIONAL DEFINITION OF TERMS

Credit Risk	Refers to the chances of incurring a loss due to non-repayment of loan by a borrower, leading to interruptions in cash flow. This is normally determined by analyzing credit worthiness of individuals to mitigate this particular risk.
Contract Enforcement	Refers to the process of engaging a non-compliant party of a contract, for example a debt collection agency to collect overdue debts through persuasive means or otherwise
Debt Collection Agencies	These are companies specializing in recovering debts on behalf of financial institutions or the lenders in general. The lending institution furnishes the appointed agent with the required debtor's details to enable the agency to do intensive follow-ups and realize loan recovery as mandated.
Debt Collection Mechanism	This is the process of following up and recovering debts owed by individuals or businesses. The collection mechanisms involve different measures applied by organizations, for example collection can be done by debt collection agencies contracted to collect debts on behalf of a given organization, use of digital credit technology among others.
Digital Credit Technology	This is a debt collection mechanism whereby computerized application is used in tracking and automatically recovering money owned in case any

deposit is made to an account directly linked to the said digital platform. Digital channels include mobile phones and online banking technology. These mechanisms are useful in critical loan recovery process in case of default through sending reminders via short messages, email and phone calls.

Default of Loan

This is the failure to repay a loan when it falls due. For example, when a loan is to be repaid every month at a given agreed installment amount when a month or months passes without the borrower making the agreed repayment, then it's termed a default.

Financial Distress

This is a situation where an organization cannot occasion adequate revenue to meet its financial obligation. It is resulting from high costs of products or services and reduced income or purchasing power.

**Institution Portfolio
Monitoring**

This is a debt collection mechanism for lenders designed to automatically notify credit providers about key credit events in the market. This helps identify overdue debts that are in default and require proactive follow up. It also involves skip-trace for physically tracking down defaulters.

Indebtedness Litigation

This is the process of taking a lawsuit in an attempt to claim a debt that is contractually past due. The defaulter sued may be compelled by the court to pay debts he/she is owed.

Loan Recovery Process	Refers to the process of making individuals or businesses repay their Loans, which involves use of different mechanisms as maybe employed by a given financial institution. The recovery process involves; checking defaulters details on their loan forms, digital credit application details, loan repayment history supported by strategies or mechanisms that ensure proper execution.
Loan Recovery	Loan recovery is proxied by non-performing loans; a decrease in NPLs means an increase in loan recovery.
Non-Performing Loans	These are loans that are unlikely to be repaid in full or are subject to delayed repayments. These are loans that are over 90 days in default. The loans have a record of default where the borrower has not made repayments past the due dates and the defaults have been recurrent and have been classified as non-performing.
Negative Credit Listing	This is issuance of a credit report by a Credit Reference Bureau of all overdue defaulted debts whose repayments are not promising. The listing means the borrowers are high risk with bad credit history, resulting from poor repayment history on one or more loans.
Recovery Rate	Refers to the estimated percentage to be recovered in case of default. This is an obligation that needs to be paid back even if the debtor is bankrupt.

ABSTRACT

Microfinance Institutions play a crucial mandate in providing credit facilities to support individuals and businesses. Loan recovery mechanisms ought to be put in place to ensure defaulters meet their obligation of paying off their overdue debts. There are fluctuations of the rates of the non-performing loans which show inconsistency in recovery of loans in the Microfinance Institutions (MFIs) in Kenya. The study sought to examine the effect of Debt Collection Mechanisms on Loan Recovery in Microfinance Institutions in Kenya. The research objectives were; to examine effect of Institution Portfolio Monitoring on loan recovery in Microfinance Institutions in Kenya having their headquarters situated in Nairobi City; Effect of Digital Credit Technology on loan recovery in Microfinance Institutions in Kenya and the effect of debt collection agencies on loan recovery in Microfinance Institutions in Kenya. The study relied on three theories; The Theory of Delegated Monitoring, The Grameen Solidarity Group Theory and the Loanable Funds Theory. For this study, the researcher employed Causal research design. The target population was all the 14 licensed MFIs in Kenya were targeted. The researcher used three types of diagnostic tests namely; normality test, multicollinearity test and autocorrelation test to test validity and assumptions of regression model. Purposive sampling to select MFIS with headquarters in Nairobi City County was used and the respondents to the research instrument while at the same time adhering to the required moral values and standards during the research period. The study used both primary and secondary data, data collected on NPL indicated that between 2017 and 2018 there was an increase of NPLs by Kshs.518 million translating to 6%, 2018 and 2019 a decrease of NPLs by Kshs.74 million translating to -1%, 2019 and 2020 an increase by Kshs.3162 million translating to 24% and between 2020 and 2021 an increase of NPLs by Kshs.816 million translating to 6%. This indicated how loan recovery was affected in different years. For the primary data, structured questionnaires were used in collection of primary data while for quantitative data descriptive and inferential statistics which is multiple regression analysis together with the analysis of variance (ANOVA). SPSS version 26 was applied in analyzing the quantitative data. The significance of the entire model and each individual parameter was determined by the F test and p-values, respectively. According to the findings, R-square value was 0.627, which means that 62.7 percent of the debt collection mechanisms is associated with the three independent variables considered in the investigation (Institution Portfolio Monitoring, Digital credit technology, Debt collection agencies), and the remaining 37.3 percent can be attributed to other mechanisms outside the purview of this study. In conclusion, the study shows that debt recovery mechanisms used in this study collectively had a stronger effect on loan recovery process. The study therefore recommends that finance institutions to consider corroborating credit performance reviews alongside debt recovery mechanisms in their operations.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Microfinance is fundamental from its original purpose and in the dynamics of business. It has graduated and developed in many ways from larger enterprises to smaller service providers to cater for the arising people's need. Microfinance is basically a product of such culminations, the creation, was meant to address the needs of small scale bankers, business people and low-income earners (Stănescu, 2021). There has been a better understanding of financial levels and needs, some of the needs include; acquiring property, meeting urgent needs like treatment or hospital bills, and death among others. The services include; savings, transfers, insurance, and credit and have come up with a means to eradicate poverty and unemployment (Cheng, 2017). Obtaining loans from a Microfinance institution is very limited due to lack of security for loans and ironically a major source of business for microfinance is giving credits (Chaddha, 2018).

According to Cherkasheninova and Tajti (2016), the government needs to play a role in supporting microfinance initiative by coming up with a proper legal framework under which MFIs work. The 2006 microfinance act gave room for advanced transformation like licensing pioneer deposit-taking financial institutions leading to introduction of new technologies that has created an avenue for opportunities to exploit in terms of service delivery at economical cost while at the same time having the ability to cater the serious needs low income earners. Financial services are now spread to the level of self-service through the mobile phones, electronic transfers and automation of transactions (Khin, 2016). As of 2020, we have micro-finance serving a larger section of clientele and it's viewed to form part of a wide network web of a financial system.

Globally, most financial institutions use different kinds of debt recovery techniques or strategies in financing and improving their performance. An example is De Lange (2017) the study on Credit Risk Modeling and Default Recovery Rates, it suggested that when the rate of defaulting goes up then rate of debt recovery also increases. This only means that

the default rate needs to be controlled using the best possible means. In India, Firanda, Prananingtyas and Lestari (2021) indicate that even though legal arbitration assists in debt recovery but its process is quite slow.

In Africa, Institutions have suffered financially due non-payment of debts or loans. For instance, despite the growing importance of Fintech businesses such as Pay Later, which controls a significant percentage of micro-lending marketing in Nigeria, the common difficulty is controlling an anticipated 20% increase in loan defaulters (Greene, 2016). Clients do not appear to be concerned with negative credit listings. Clients always have another alternative if one firm denies them credit due to many enterprises pursuing the business of credit provision or lending which are ready to offer loans under flexible terms. Because of high level of competition, businesses have resorted to not caring about their clients' credit ratings, resulting in steady default rates (Lewis, 2016). The highest test for lending institutions has been the high rate of installment defaults, which has been compounded by difficult economic conditions. This motivates them to put more effort into recovering the credits. A set of debt recovery rules tightens the rope in as far as collecting the debts accruing out of credit being denied. As a result, the firm's most important achievement is jeopardized (Baloro, 2018).

Financial institutions in African nations play a significant part in financing projects. Deposits are acknowledged by financial firms by assuring clients that their funds are liquid and secure (Ansong & Boateng, 2019). They provide cash to investors on demand and broaden recognition for borrowers through credit extensions. Because of these critical roles, financial institutions have always been concerned about dissolvability and liquidity risk.

MFI Act in Kenya became active in 2006 after legislation was passed giving way for easy-reach financial service providers to mushroom across the country and in Nairobi. Micro-Finance Institutions exercise a mandate of major service provision in offering loans to people for different purposes as defined by those Microfinance Institutions (MFIs).

Lack of funds to repay Micro-Finance loans has been discovered to be a cause of distress in India, Breza and Kinnan (2018). Individuals or parties given credits inform of loans

should be responsible enough to repay what they owe in according to credit terms agreed upon. However, this do not always happen as expected forcing the lenders to write off the debts. For this reason, the financial institutions have made milestones in ensuring that they cub on the issue, by introducing new methods of controls as debt collection is concerned. Borrowing what you're unable to repay brings a double tragedy; the borrower has no peace of mind and at the same time live in great financial distress (Torrie, 2021).

Otero (1999) in his study state that microfinance loans provide material capital to the poor hence protecting their dignity, empowering people to become entrepreneurs so as to alleviate them from poverty and improve their economic well-being. The study also reveals how microfinance loans are helpful to small businesses. However, there is the essence of monitoring and effective control of non-performing advances in the performance of a Microfinance Institution and that this becomes a factor in managing defaults (Al-Khour, 2011). Additionally, MFIs have designed flexible terms of repayment of loan ranging from weekly, monthly or quarterly depending on the type of business, capacity of generating cash flow.

1.1.1 Debt Collection Mechanisms

The process of debt collection is initiated at the point where an account has been assigned to an agency to catalyze recovery (Fedaseyeu, 2020). MFIs prefer use of third party firm in recovering for their debts as a cost minimization measure, and also the effectiveness of loan recovery (Chaddha, 2018). Debt collection mechanisms are key and can be applied simultaneously, the mechanisms include; Institution Portfolio Monitoring, contract enforcement, Digital Credit Technology, indebtedness litigation and warrant action, use of Debt Collection Agencies, and skip trace method. For an Institution to ensure that it doesn't fail due to bad debts, it should ensure that it properly design mechanisms in doing debt follow-ups. This should involve use of Institution Portfolio Monitoring which encompasses the use of proper system storage of debtors' records, automatic notifications and reminders to the debtors on their overdue loan repayments. Coming with effective but flexible terms that fit in the debtors' economic status, the strategies should be dynamic and conducive for both the lending Institution and the debtor (Mercy et al., 2019).

Another strategy that has also helped businesses easily deal with debt recovery by evolving out of manual debtor listings to digital method, (Kamar & Ayuma, 2016) is the digital credit technology. The digital debtor module assist in management debtors and identifies overdue debts while debtor edging analysis in the module helps display the outstanding debtors and days past the due dates. Additionally, Enterprise Resource Planning has also helped in generating debtors reports that can be printed and filed for reference.

For effective debt collection, Debt collection agencies are also used by institution. Firms are outsourced to offer the service of follow ups and recovery of debts from borrowers, they use different strategies to collect the debts. According to Fedaseyeu (2015), effective debt collection strategies are used by successful businesses to ensure good performance. The strategies should also be reviewed from time to time especially during difficult economic times when people maybe be financially drained. Creditors will be able to devise means to ensure repayment of debts from people owed since repayment is a legal obligation of debtors. On the same note, someone should only be pursued for debt when it is appropriate and in such a manner that does not seem to be like harassment.

1.1.2 Loan Recovery

Loan recovery involves a process pursuing debt majorly the non-performing ones (De Lange, 2017). Repayment notifications, past due date reminders, Last notice, Contact borrower, and Demand letter—formal are some of the recovery strategies, (Okorie & Andrew 1992). In certain occasions, the mentioned strategies work while in other situations they fail to succeed, the gaps are quite vital and needs to be closed. Baku, E. and Smith, M. (1998) describes the role of Credit Institutions in loan default more especially if the risks involved in those debts are not keenly noted. Mattius (2009) states that the credit policies needs to be adhered to in order to deal with the issue of overlooked then loan default.

Non-performing loans have led to liquidity issues in MFIs in Kenya, liquidation and negative impact on wealth has been experienced as a result of increasing non-performing loans, (Njeru, 2011). One of the mechanisms that the study focused on was using Debt Collection Agencies in the loan recovery, some of the loan recovery firms include; Nimble

Group Kenya, Glichery Ltd, Apex Collections Africa Ltd, Cyka Ltd, Lolwe Auctioneers, Tebz Debt Solutions Ltd, Swipe Recoveries Experts Ltd, Excel Credit Management Solutions, Calm Recoveries, Sinosa Ltd and Skywave Management Services (Abuyeka, 2020).

According to CBK's Business Survey Report as at December 2020, MFIs restructured loans in 2019 and 2020. In the year 2020, 0.7% of the restructured loans had full repayment in comparison to 2.2 percent of loans that had full repayment in 2019. The outcome meant that in 2020, 74.8% of the outstanding restructured loans were performing, this was higher than the 10.7% registered in 2019. The loans restructured in 2019, non-performing came to 87.1% in 2019 while the year 2020 had 24.5% as non-performing loans. The results are a demonstration that there is still some percentage of outstanding loans that are not recovered each year depending on techniques applied in loan recovery. The study investigated on mechanisms that can be used to bridge that gap.

1.1.3 Microfinance Institutions in Kenya

Microfinance Institutions in Kenya are ideally positioned to offer credit services to individuals or businesses, hence forms the unit of analysis for the study. These companies have set proper and effective credit-giving methods during the previous two decades as a result of their innovations (Kathomi et al., 2017). Groupings are being utilized to cut down on transaction costs and to replace collateral. Program methods have been simplified to suit both educated and uneducated customers in MFIs. Murimi et al. (2021) go on to say that similar progressive and effective savings services have experienced limited funding.

The Microfinance Acts of 2006 set out the MFIs' regulatory structure throughout Kenya. The enactment of microfinance act came about on the 22nd May 2008, with certification and monitoring as important roles. This Act enables Microfinance institutions to mobilize consumer deposits and enhance access to credit.

A microfinance lender is a company licensed to conduct business under constraints of microfinance moreover, the Central Bank of Kenya (CBK) supervises and regulates MFIs, (Kimaru & Kinyua, 2018). There has been poverty reduction amongst particularly poor individuals as a result of MFIs providing the most needed services like loans, deposits,

money transfer, and insurance related services. One of these institutions' main goals was to provide financial services to underprivileged people who were financially disadvantaged and weak, allowing them to get an opportunity to invest and start small scale enterprises (Mwangi, 2016).

Initially microfinance institutions were funded by grants, loans with low interest, and donor aid, with primary goal of stretching a help to the poor (Omurwa, et al., 2021). Provision of reduce financial services was to make sure that persons impoverished can use them. Thereafter, government agencies, and donors have quite depended on subsidies and cash. Makorere (2014) studied loan repayment behavior and scrutinized the factors influencing such behaviors in Tanzania. The study noted that quite a number of financial institutions struggle with high volume of defaulters. By the year 2020 , there were a total of fourteen (14) licensed MFIs, eleven (11) of them found countrywide; (Faulu Kenya MFB, Kenya Women MFB, SMEP MFB, REMU MFB, Rafiki MFB, Century MFB, SUMAC MFB, Caritas MFB, Maisha MFB, Uwezo MFB and U&I MFB) and Daraja MFB and Choice MFB (community-based MFBs). Twelve (12) of these institutions have their operations in Nairobi City County besides being elsewhere in the country (CBK, 2020), Appendix IV displays a list of licensed MFIs in Kenya.

1.2 Statement of the Problem

Loan recovery is a fundamental subject in Microfinance Finance Institutions (MFIs). In Kenya, a number of loan defaulting issues have arisen in the past and recorded as bank failures for instance there were 37 failed banks in the years between; 1986 and 1998, (Ngugi, 2001). The problem in the recorded cases were as a result of Non-Performing Loans (Advances).

MFIs support economic activities to individuals, small and medium term enterprises by proving loan facility as a means of financial boost. Success of small and medium term enterprises have been associated with MFIs due to the credit facilities they provide to facilitate capital for start-up and expansion. The small businesses flourish, compete with other firms in the business environment and subsequently those actions lead to mitigation of poverty (Robinson, 2001). This is alluded to the fact that microcredit is enabling small

and medium term enterprises to enhance their performance through giving them small advances not available in other financial institutions.

According to CBK reports, there has been a fluctuating trend on the net NPLs of the MFIs. Between 2017 and 2018 there was an increase of NPLs by Kshs.518 million translating to 6%, 2018 and 2019 a decrease of NPLs by Kshs.74 million translating to -1%, 2019 and 2020 an increase by Kshs.3162 million translating to 24% and between 2020 and 2021 an increase of NPLs by Kshs.816 million translating to 6% (CBK 2017, 2018, 2019, 2020 and 2021). Despite fluctuations in the figures and at some point between 2018 and 2019 experiencing a slight decrease in NPLs, NPLs have generally been on the rise in the rest of the years indicating that loan recovery is quite low hence the need to close the gap. Mechanisms under study can be adopted to curb the increase in the NPLs.

The issue of loan defaulting have also been experienced internationally. (Caoutte, et al., 1998) lay emphasis on group lending and examined the indicators of loan repayment in relation to farming and agricultural sectors. This study sought to establish whether the debt collection mechanisms have effect on loan recovery in the MFIs in Kenya.

Due to various underlying issues in loan recovery, the MFI's ability to extend credit has been harmed to some extent. MFI's termination and reassignment of some MFI directors and recovery personnel indicates that everything is not well with MFI's loan recovery in general (Muthama & Warui, 2021). Non-performing debt created by a challenging operating environment, a lack of sufficient skills amongst loan officers, and the quality of credit monitoring are all elements which always lead to the Non-Performing Loan that serves as the primary source of recovery.

The larger the defaulted loans wiped off from a micro financial institution's earnings, the smaller the net profit and, as a result, the sum paid out as dividends to shareholders and for reinvestment in the business (Bengi & Njenje, 2016). Moreover, micro financial institutions in Kenya have seen a higher incidence of non-performing loans from borrowers, resulting in significant losses. Runde (2015) in a study on mobile usage and loan repayment, suggest that mobile phones needs to be monitored as a way of predicting future defaults thereby finding strategies to curb them. However, the study have noted a fair share of gaps in using mobile lending. There has been quite a number of mobile loan

applications creating alternative avenues of borrowing, while this is a good business it has encouraged a habit of defaulting by many borrowers, one jumps from one platform to the other as an avoidance strategy while at the same time not meeting his or her obligation of repaying debt (Ndegwa, 2014). If digital credit technology is properly applied, it can be a great tool in making follow ups and eventually recovering the loans, digital credit applications have a way of automatically making deductions from borrowers accounts linked to the loaning institution.

Kiplagat (2013) concluded in his study that it is necessary to employ technology for efficient recovery of loans, however technology can sometimes be limited to areas where there is good network failure to which, it may not be an effective tool for loan recovery. An analysis of MFIs financial statements in Kenya throughout the years reveals that the massive sums of money written off as bad loans each year have been increasing (Namutenda & Muturi, 2017). Perhaps it's because of the debt collection mechanisms not properly applied in loan recovery hence the reason for the study on Debt Collection Mechanisms on Loan Recovery in Microfinance Institutions in Nairobi City County.

Farmers also need to obtain credit to facilitate acquisition of basic items for production, this includes; purchase of fertilizers, farming tools and equipment, building premise among other requirements, families need credit to buy critical goods and services needed at any given time (Adeniyi, et al. 2006). The services required to be paid for by families include; paying school fees and paying for health care services. Alemayehu et al., (2001) noted that availability of credit ensures delivery of essential social services since the credit provide finances for increasing production, investments are expanded and eventually leading to improved standard of living. Credit is key in economic development; the financial need for operating expenses will be well catered for with the availability of credit. The study based on significance of credit to households but do not proceed to address how the failure to repay debt affects the lender institutions, and also the study does not dig deeper to define mechanisms that could be used in loan recovery. This gives the reasons behind conducting a study on debt collection mechanisms and loan recovery in the MFIs in Kenya.

1.3 Objectives of the Study

The study has General objective and Specific Objectives;

1.3.1 General Objective

The study focuses on Debt Collection Mechanisms and Loan Recovery by Microfinance Institutions in Kenya.

1.3.2 Specific Objectives of the Study

- i. To determine the effect of Institution Portfolio Monitoring on loan recovery in Microfinance Institutions in Kenya.
- ii. To examine the effect of digital credit technology on loan recovery in Microfinance Institutions in Kenya.
- iii. To establish the effect of using debt collection agencies on loan recovery in Microfinance Institutions in Kenya.

1.4 Research Hypotheses

Research hypotheses for the study are as follows:

Ho₁: There is no significant effect of Institution Portfolio Monitoring on loan recovery in Microfinance Institutions in Kenya

Ho₂: There is no significant relationship between digital credit technology and loan recovery in Microfinance Institutions in Kenya

Ho₃: There is no significant relationship between debt collection agencies and loan recovery in Microfinance Institutions in Kenya

1.5 Significance of the Study

Findings of this study is anticipated to give critical and important framework to policy makers like the Central Bank of Kenya, MFIs' management boards, academia and scholars, to find better loan recovery ways or collection and in overall manage their liabilities well. Effective management of debts will not only create efficiency but increase profitability of the institutions. Other financial institutions and lenders other than Microfinance Institutions will also gain from the study findings since they all need to improve on their means of debt collection.

The study results will help the lending institutions make informed decisions on lending policy. Small and Medium enterprises will be able to note on their dealings with Microfinance Institutions and how better they can manage their debts. Moreover, the

findings will be helpful to researchers planning to research on a topic related to the current research study.

1.6 Scope of Study

The study concentrated on three major aspects; institution portfolio monitoring, digital credit technology and debt collection agencies on loan recovery. In as much as there exists a good number of financial institutions in Kenya, the researcher decided to focus on 12 licensed Microfinance Institutions which have their headquarters in Nairobi City, this is because Nairobi being country main business hub, there is wide network range hence obtaining information applicable to all MFIs and useful to the study. In as much as the licensed MFIs have branches across the country, Nairobi City has their central support offices hence information gathered becomes very authentic.

The study further narrowed down to focusing on specific debt collection mechanism and how they affect loan recovery by Microfinance Institutions in Kenya. The study targeted credit officers working in MFIs having their headquarters situated in Nairobi City County. The study was carried out and data collected for the years between 2016 and 2021. The research study focused on both primary and secondary data gathering in order to give comprehensive results.

1.7 Limitations of the Study

There were challenges met in the course of the research period; some respondents were uneasy to provide exclusive information regarding the subject, this is because the fear of confidentiality of information they felt were not privy to everyone. In certain instances, debt officers were conservative of the kind of information they provided for fear of conflicting with Institution's code of conduct which they felt could put their jobs at risk for releasing the information required for the study.

Debt collection system currently used in the market may be weak hence the attempt by the researcher to scrutinize on the gaps proved not easy hence the process of realizing a valid and conclusive finding was conducted in quite a difficult situation. Search for documentation relating to the non-performing loans and details of loan recovery mechanisms faces a lot of hurdles and red tape for the reason of non-disclosure considering the critical nature of the documents. However, the researcher had to show the respondents

the license from NACOSTI and a letter of introduction from the University properly authenticating the researcher's study purposes, for the required information to be shared. The research license enabled the researcher to carry out data collection however difficult it proved to obtain information in some instances.

1.8 Organization of the Study

There are five (5) chapters in this research project; it begins with an Introduction phase (chapter 1) which lays the foundation of the topic. It highlights what the study is all about, the actual focus, research problem of the study, significance and the limitations of the research study. The second chapter deals with literature review (empirical and theoretical review), this includes different views of scholars concerning the topic under investigation. Chapter three (3) entails research methodology; the research design, target population, sampling size and sampling techniques, data collection instruments, data analysis and presentation. The fourth chapter entails data analysis and findings which included interpreting the data gathered and generating the results. Chapter five (5) presents the conclusion and recommendation of the study, summary of what the study has achieved and the views of the researcher and presents further areas of research study for scholars.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review focuses on three sub-categories named; theoretical and empirical review of literature. The theoretical review captures on views and conclusions of different scholars on the study under investigation, moreover it analyses the theories related to the topic. Empirical review concentrates on the study variables highlighting the problem under investigation.

2.2 Theoretical Review

An inference of reason and ideas which explains about a study and are the principles under which a phenomenon is built or laid (Kombo & Tromp, 2009) is called theory. The theories that underpin the study include; The Grameen Solidarity Group Theory, Theory of Delegated Monitoring and the Loanable Funds Theory.

2.2.1 The Grameen Solidarity Group Theory

This theory devised by Yunus in 1974 as cited in (Yunus & Jolis, 2003) states that a group of people borrow as a team and encourage themselves to do repayment. This happened as financial institutions started granting to a group of people between 4 and 7 and mostly they are groups formed based on peers. The theory is an idea of social capital involving who become responsible for each other's success and repayment, liable when members default. It was required that for the group members to be granted another loan, all the group members had to repay their debts, this was meant to alleviate debt defaulting (Armendariz & Morduch, 2005). The Solidarity theory is comparable the lending approach, a group was identified and started benefitting from the loans, only a few members of the group were granted the loans as the MFI monitored their credibility and credit worthiness for some time before the institution could eventually allow all members to access the loans (Hazeltine & Bull, 2003). When the loans are repaid in good time without defaults, then the group builds a good rapport with the MFIs and eventually the cycle of lending continues.

Debt collection and recovery was not wholly left as a sole responsibility of the management of MFI but also the role of the members of the group which was lent money had a role to ensure that their members did not default, putting them on their toes so that their creditworthiness may stand to offer them approval for future subsequent loans. Many financial institutions apply the Grameen approach to reduce the risk of giving loans to people and fail to repay, by giving loans courtesy of groups identified by MFI because the character of the group members are well known to the group. In some institutions, they apply the concept of joint liability to act as a strong collateral and as a good control measure. Institution Portfolio Monitoring relates well with the Solidarity theory in that accounts of debtors are monitored to measure the credit worthiness and repayment history to make sound decisions on necessary action plans.

According to Fischer (2010), joint liability can be defined into two perspectives; explicit and implicit. Explicit approach is where if a member of a group default paying loan, then the rest of the members are also liable, they are all bound by a member's loan repayment behavior, the other members are contractually bound. On the event that every member repays loans in good time, then every member enjoys the subsequent dealings with the creditor since they'll be credit worthy in the future loan applications. However, under implicit approach, if a member defaults, the rest of the members will not be granted loans in the subsequent applications even if it was not written in the contract. The view considers arranging for frequent meetings with the borrower so as in the event the borrower defaults, the lender will be able to ascertain whether the default was intentional or not, and if there is genuineness of the borrower's inability to pay at that given moment, then the lender may estimate when the borrower will probably be able to repay the debt.

The Grameen Solidarity Group Theory forms a strategy of ensuring that members pay their debts since the group cannot access a loan if a member has pending debt, this relates well since the study also focus on investigating other mechanisms that affect loan recovery. Institution Portfolio Monitoring has a close relation to this theory since under this mechanism, debtors and potential debtors are put on the radar so that only worthy debtors are given loans. Even if unfortunately they are issued with loans but they turn out to be defaulters, they can easily be traced using the monitoring strategy.

2.2.2 Theory of Delegated Monitoring

This theory developed by Diamond (1983) entails giving financial institution a mandate to check and monitor debtors' records in order to know credit worthiness. Where the Bank is given the mandate to evaluate customer's credit worthiness, records of a customer is available in the bank's data base and the borrower's bank account can be observed in terms of cash inflows and outflows. The records reveal all the necessary required information in determining whether to issue a loan or not. Screening of the borrower by the bank also involves the application of the 5Cs model to help determine credit worthiness of a prospective borrower (Baiden, 2011). 5Cs are indicators in setting standards for credit issuance. The model is useful for measuring credit worthiness of prospective customers/debtors, the details and information disclosed by the customers during loan application is what is used as a score card for worthiness (Pandey, 2008). The loan applicant's information will include; capacity to repay, collateral, capital, character, and conditions of the prospective loans.

Peavler (2013) advances on what Pandey by defining capacity as ability to repay, Pandey goes on to state that credit officer assess the capability and readiness of the applicant to payback loan. Collateral is simply the security for loan for example fixed assets like land title deed (Kakuru, 2001). In case a debtor is unable to make repayments for the loan, then a collateral maybe used to payback. Character generally is the conduct of a prospective applicant, what shows the conduct, no financial institution will be willing to have a criminal to become a client and a debtor for that matter. This is a check point which a financial institution will be keen to look at before approving an applicant for loan.

Conditions and terms should be assented to by the prospective loaner as an indication and commitment to offset the loan. Financial institutions place the slot of signing to the terms and conditions as a control measure of debt recovery. Capital entails investment made in a business and also is a key part in running of a business, the microfinance institution's credit managers will be interested in knowing the degree of risk associated with the amount of capital the prospective debtor has launched in business should there be a default or failure to repay the loan.

According to Kisala (2014), the checks by the debt manager would include, going through the financial statements of the prospective debtor's business, which would indicate the proportion of debt to equity. The financial statement would reflect the main source of financing, and how much debt the customer would require. If the prospective debtor uses much of the debt, then there is a possibility that the profit may be infringed due to high costs incurred leading to financial distress hence default in debt payment (Pandey, 2008). The borrower's financial health, repayment ability and financial discipline are normally checked evaluate the viability to qualify for the loan.

The delegation aspect is also used while engaging debt collection agencies, monitoring aspect is also applied while using Institution Portfolio Monitoring in debt recovery and consequently retrieving debtors' information by use of technology relates so well with how Digital Credit Technology is applied in loan recovery. The delegation bit also relates well with debt collection agencies, since they work on a delegated task from the MFIs, the theory of delegated monitoring is based on the idea that an organization assigns a financial institution to check debtors records in finding out their credit worthiness.

2.2.3 The Loanable Funds Theory

This theory was developed by Wicksell (1898), it states that the constant desire of the consumers for the need of credit and availing loanable funds are determinants of interest rates. This theory is all about bringing borrowers and savers at equilibrium so that at no point either party takes leverage of the other, position of equilibrium brings both borrowers and savers at a satisfactory level free from exploitation by neither party (Ngugi, 2001). Interest rate should be at a position of compensation of both parties and neither parties should feel aggrieved Emmanuelle (2003) so that debt management may not be marred with negative implications. That the more the investments in profitable ventures the higher the income level of individuals or businesses, this distinguishes it from classical theories (Wensheng et al., 2002).

For the equilibrium to happen between the borrowers and savers there should be strategies put in place for loan recovery. The demand for credit will only increase if there is smooth repayments of the loans, no institution will be glad to issue loans to people with bad credit

history. Hence follow up for overdue debts needs to be constantly done whether the mechanism used is Institution Portfolio Monitoring, Digital Credit Technology or the use of Debt Collection Agencies. Non-performing loans may create a scenario whereby the loans are not available since they have not been repaid, that cripples supply at the same time those who default making payments may not have the ability and credit worthiness to apply for another fresh loans with the new customers having to go through stringent and advance credit terms for them to access loans.

It is better for the borrower to get relief earlier enough to avoid default repercussions while at the same time maintaining creditworthiness. The creditor should get an opportunity to monitor his debtors and gauge each one of them to help inform future loan issuance decisions. Loanable theory introduces interest rate as a strategy of creating equilibrium between the lender and the borrower hence a safety net for the lender since it prompts the borrower to make payments to reduce on increased financial obligation accruing from interest on loan.

The theory is applicable while employing the use of the debt collection mechanisms in order to reduce the non-performing loans and subsequently increase loan recovery. Digital Credit Technology may have a package in the application that auto generate or add interest against debtors accounts where and when appropriate, the technology aspect becomes a value add in coming up with a strategy in recovery of loans.

2.3 Empirical Review

Empirical literature involves analysis of publications focusing on the same topic. The analysis gives a deeper scrutiny on the research topic.

2.3.1 Institution Portfolio Monitoring and Loan Recovery

Institution portfolio monitoring is simply systematic monitoring of the debtors who can no longer be reached using his or her contacts provided, the borrower doesn't want to be reached but the account is long overdue. It involves as far as checking through phone book of the client, public information shared in various media spaces, skip trace and exploring legal means all in a bid to find the borrower to repay the outstanding debts, (Kusi & Kwadjo, 2015). More information can be obtained from the place of work, family and

friends, by putting all monitoring strategies in action, risk management becomes possible. The internet spaces also have a lot of information that one may want to source, this includes social media platforms and professional network platforms, and hence portfolio monitoring is made easy (Samwel, 2016). Information on payroll, vehicle registration and business registration documents and files can be so helpful in skip trace. Some of the tools effective in skip trace includes; google, facebook, LinkedIn, and email trackers. The tools when properly used can be very useful in tracking down debtors.

According to the study carried out by Kamar and Ayuma (2016), there is need to monitor debtors' accounts to facilitate follow up and recovery of the pending repayments. Checks are done on the debtors active and dormant accounts, all transactions done so that it would be easy to fast track or know the payment behaviors of all those owed. The study findings were that for debt recovery to be effective there should be monitoring of active and dormant accounts before granting loans but do not address how to recover the outstanding debts. There is more to using strategies like following up on the guarantors, auctioning, and collateral retention. These are traditional methods that have been used before but there still remains a loan recovery dilemma. Institution Portfolio Monitoring can be used effectively to bridge the gap.

Lenders use information or data on customers' repayment history in making future decisions on giving loans. Migwi (2013) explains how available customer information is critical for monitoring and risk reduction. The aspect that the study does not address is how the information obtained can effectively be monitored and reviewed, the current study explore on this gap through the Institution Portfolio Monitoring mechanism which is more advanced tool in as far as loan recovery is concerned.

2.3.2 Digital Credit Technology and Loan Recovery

Digital credit technology has impacted much on debt collection, this include mobile technology, Artificial Intelligence and block-chain technology. Credit institutions have incorporated the applications on mobile phones to be used by their officers anywhere anytime to undertake their duties, when they are out of office the applications work well for them since they contain all the information about debtors and debts they need (Khin,

2016). The officers can make communication to debtors, after debt follow-ups debtors can make payments using payment application (automated repayment system) and confirmation of payment can be done on through such applications.

Artificial intelligence came into space in 2018, which provided a new way of managing debt. It involves use of algorithms to store data which thereafter can be used for predictions when a debtor is likely to pay (Russell & Stuart, 2003). Types of intelligence include; autonomous intelligence which requires that machines to fully work on their own without human intervention or interference, the other type of intelligence is intelligent virtual assistant; which propagates machine virtual assistant instead of human assistant to help debt collection accurate and effective, this helps in digital credit assessment.

Block-chain technology is an improvement on credit cards used by credit institutions, the credit card can easily be hacked because customer's information is on it, and block-chain comes in to fill that gap by giving an assurance that it's precise and secures data (Reuter, et al. 2010). Fraud can be avoided, and reduces level of bad debts. Block-chain technology has transformed from digital currency to finance and gradually extended to other sectors. Collection management system is useful in streamlining workflow, self-service, storing debtor's details in the data base, setting up connectivity for all the users for debt analysis and follow-ups. E-resourcing is also very pivotal in online negotiations and payments by debtors. Technology is useful and the new upcoming methods are slowly being accepted because of their effectiveness in collecting debts. Kiplagat (2013) explains why the use of technological innovations and mechanisms are significant in the whole process of loan recovery. The digital platforms of credit payments, electronic money transfer are techniques used for both taking credit and also doing repayments.

According to Wanjiru (2020), digital technology does not affect mobile loan repayment, that it's the time someone spends online that dictates whether he or she will pay back the loan they have. However in MFIs where customers records are kept in the record system, following up on debts can be fast tracked. However the study fail to find solutions on how to deal with defaulters who after they take loans they don't paid but rather log into other platforms who provide loans without being affected by records at credit reference bureau.

2.3.3 Debt Collection Agencies and Loan Recovery

Debt collection agencies have a mandate to do follow-ups of cases of overdue debts forwarded to them by MFIs to ensure repayment is done (Fedaseyeu, 2015). Because of the weight of work involved in this area, organizations source for external firms to recover debts on their behalf. According to Business News Daily, US (2020), when choosing on collection agencies, it's important to analyze what services they have, how they relate with your debtors which is as well important because the agency will be working on behalf of your business.

There should be strict terms and regulations concerning recovery initiative since the agencies would always wish to uphold to their dignity hence treat your debtors with respect. If a business has exhausted every means to recover debts, they can finally opt to leave the recovery role to professional debt collectors to handle it on their behalf (Jalonen & Takala, 2016). Debt collection agency should be able to communicate well with the customers in a manner that would convince them to repay their loans, the agencies will also need to have high degree of negotiation skills when dealing with borrowers. When they use the communication and negotiation ability well, they would be able to impact positively on loan recovery.

Lender's provision of credit card loans is pegged on enforcement mechanisms that are put in place that will ensure any loan given, repayment is done Shleifer et al. (2008). The moment the loans are in default, lenders normally commence on debt recovery, first by making the internal initiative, then it goes extreme, they involve the external collection agencies. Most debt collectors work on commission and the remaining fraction of amounts repaid is forwarded to the lender.

According to Wandera (2017), debt collection firms play a vital role in debt recovery and even though they have some shortcomings, the study reveals that when an institution engage them, they are likely to recover their debts in the long run besides other benefits that come with it like reduced logics, training and tracing costs. However the study fell short of exploring other related mechanisms that could be used to support debt collection

agencies' initiatives. The current study seek to address wholesomely how debt collections agencies can effectively be applied for good results.

2.4 Summary of Literature Review and Study Gaps

The literature review indicates that there was indeed a research gap. The past studies talked of individual factors affecting debt collection, while none of them has done a consolidated review which combines technology, enterprise culture and debtor education to see if there is any impact. The research gaps are noted and summarized in Table 2.1.

Table 2 1: Summary of Literature Review and Study Gaps

Author (s)	Title	Findings	Research Gaps	Focus of the Study
Kamar & Ayuma, (2016)	Effect of Debt Recovery Techniques on Performance of Selected Financial Institutions in Eldoret Town	The study revealed that in order to facilitate effective debt recovery, credit department to monitor active and dormant accounts in loan issuance	The study focused on recovery measures like; following on Guarantors, Auction and Collateral retention. These are the generally used approaches that have to fully address the loan default issues.	Institution Portfolio Monitoring mechanism use of skip trace to physically track down debtors for a one on one follow up diverts from the strategy of constant harassment and intimidation via phone calls and text messages.

Khin (2016)	Digital technology, digital capability and organizational performance: A mediating role of digital innovation.	Outcome of the study indicates that there is positive impact of digital capability on digital innovation in relation to financial and non-financial performance	Digital Credit Technology is sometimes used by people with low credit ratings to borrow loans that in the long run they don't repay. Mobile phone is still a weak link that needs to be checked.	Digital Credit Technology comes in to mitigate digital loan non-repayment. Debtors link their loan accounts to their other savings accounts, when they fail to pay the loans are recovered from the amounts launched into their respective linked accounts
Kiplagat (2013)	The Effect Of Technological Innovation On Loan Recovery In A Student Financing Organization: A Case Study Of Higher Education Loans Board.	The study noted that technological innovations have an impact on loan recovery and that for an organization to be able to increase loan recovery, it is important it takes into account the use of technology	Follow up can only be done up to an extent where technology is accessible. Where there is no network to facilitate becomes a problem and that needs to look into.	The technology used for digital credit can be improved to have network that is efficient enough to sustain the whole process of loan recovery.

Wanjiru (2020)	Effects Of Mobile Lending On Loan Repayment In Commercial Banks In Kenya	The study held that factors such as credit management, monitoring and technology have an impact on repayment of mobile loans. Mobile way of banking has become order of the day, it is quite significant for any progressing financial institution	Mobile applications are many hence its quite easy for people to default as they source for loans in alternative platforms	Digital Credit Technology when properly implemented helps in accurate follow up of overdue debts hence facilitate recovery.
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Wandera (2017)	Factors Influencing the Performance of Loan Collection by Commercial Banks Through Outsourcing of Non-performing Loans to Private Firms: a Case of Barclays Bank of Kenya Limited, Nairobi	The study exhibited that due to long years of operations of debt collection firms, they are better placed in effectively carrying out loan recovery on behalf of another Institution.	If Private firms doesn't execute their roles properly, then it will negatively affect the performance of the Finance Institutions opting to use them as a strategy of recovering debts.	Debt collection agencies can be effectively used to ensure loan recovery objectives by institutions are achieved.
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Source: Author (2024)

2.5 Conceptual Framework

This involves illustration of interrelation between the independent and dependent variables. The dependent variable is Debt Recovery, while the independent variables are Institution Portfolio Monitoring, Digital Credit Technology, and Debt Collection Agency. Figure 2.1 summarizes the link between the variables in this study.

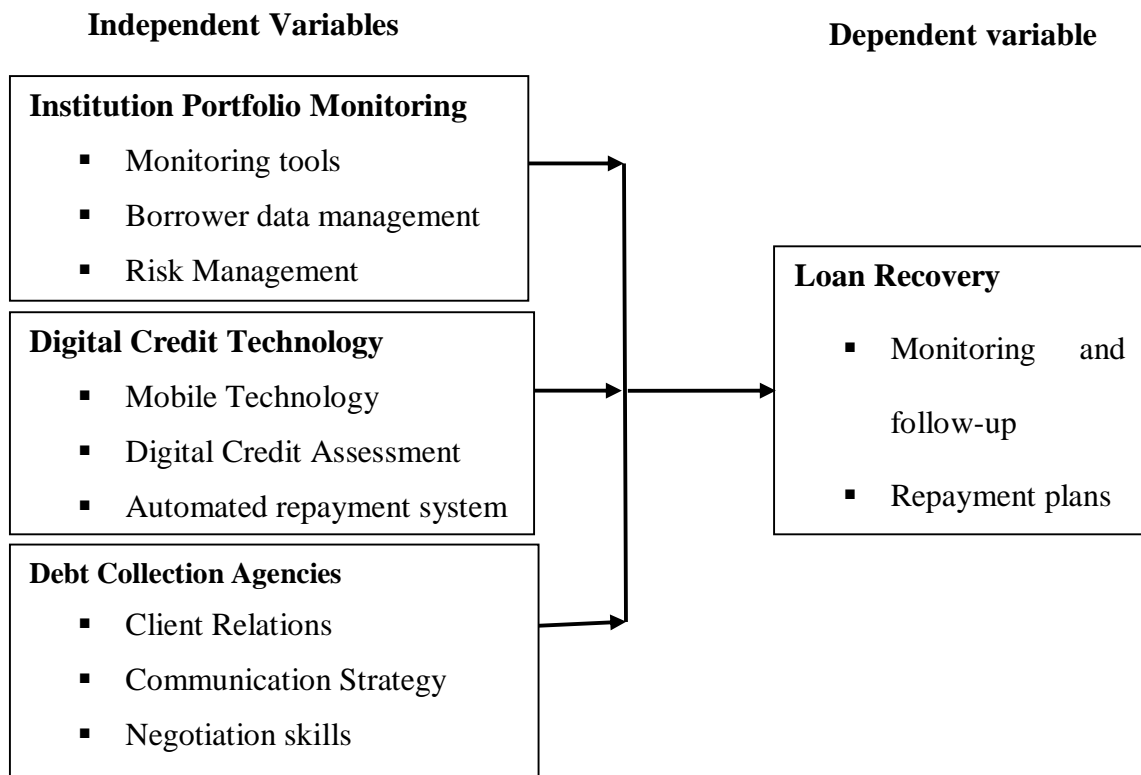


Figure 2. 1 Conceptual framework

Source: Author (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails processes and study techniques applied in the study. It includes; research design, sample size, target population, sampling methods, data collection instruments, analysis, and ethical considerations.

3.2 Research Design

The researcher applied causal research design since it establishes the degree and type of cause and effect in association between variables. It is preferred method since it allows for a more in-depth investigation of the situation. The research design to be used ought to be relevant and applicable to the study hence the researcher using investigation method that concentrates not only on the gap but also the impact resulting from that problem. The correct research design led to authentic and reliable results because of the appropriate design laid out during data collection and analysis.

The respondents were required to provide information relating to cause and effects of the relationship between the study variables. The responses would then inform the results realized after the analysis, this actually proved to be essential method in regards to the study objectives and in consideration to the study gap which could only be tackled through a relevant study method linking the study to appropriate investigation.

3.3 Target Population

The targeted population in the research study constituted of 12 licensed MFIs in Kenya. The respondents were credit officers in 12 MFIs in Kenya having their headquarters situated in Nairobi City. The Microfinance Institutions under the study are as shown in (Appendix III). With the target population identified, the researcher had a focus on specific areas to be investigated that would add value to the study as is exhibited in this project. The target population also informs on the kind of questions to be structured in the data collection instruments and how appropriate that becomes helpful during analysis.

The 12 MFIs were accessible since they were all situated in Nairobi City County, all the information needed from the specific respondents from the institutions were well obtained with detailed information gathered from the respondents since the target respondents were considerably few and the research got adequate time to issue questionnaires, be filled and queries made and answered appropriately. This ensured that the data collected contained correct views and details of the research subject under investigation.

3.4 Sample Size and Sampling Techniques

In instances where cost of undertaking census is prohibitively high, or time is inadequate to reach the whole population, sampling is used. Sampling technique is mostly used when the cost and time needed to do the study is not tenable or also when it's not easy to access the entire population or the sample is a representation of the entire population. There are 14 licensed Microfinance Institutions in Kenya (CBK, 2020). Sample survey on 12 MFIs having their headquarters situated in Nairobi to represent all the microfinance institutions in Kenya. The researcher also sampled one credit manager per microfinance Institution to fill the questionnaires and be used as a representation of every Institution status.

The sampling procedure is a process for obtaining the smaller sample that is representative target population that is thought to have the population's characteristics (Wilson, 2014). Sampling according to Asiamah et al. (2017), is obtaining data from a small group representing the whole population. This study however conducted a census on all the MFIs without adopting a sampling technique. For a population of less than 100, Parahoo (2014) says that a census approach can be used.

3.5 Data Collection Instrument

Questionnaires designed were used in gathering data from all 12 licensed MFIs in Nairobi City County using questionnaires. A structured questionnaire is easy to use, according to Taherdoost (2016), because it is less expensive and easier to administer. The questionnaires were brief and straightforward, with queries progressing from simpler to harder ones. The questionnaire had varied questions from closed to open ended questions. Questions are framed in such a manner to enable compatibility of answers.

Likert scale was applied on the structured questions to provide a clear response to the questions, it was also useful in collating data since the answers were in number form

(Brown & James, D. 2011). The questionnaires were issued to credit managers in 12 MFIs having headquarters situated in Nairobi City. These questionnaires have Likert scale that show the extent of agreement to a particular question.

3.6 Reliability and Validity Test

The study was determined at ensuring the reliability and validity of the questionnaire as the data collection instrument used in the research.

3.6.1 Reliability Test

Reliability refers to when the results of the findings are reliable (Kothari, 2014). The researcher applied a test-retest technique to check on the questionnaire's reliability, while the Cronbach coefficient alpha tested consistency. A Cronbach result of a value greater than 0.7 shows that the research instrument is reliable (Taherdoost, 2016).

3.6.2 Validity Test

The degree to which conclusions made by considering scores from tests are relevant (Mohajan, 2017). The questionnaire had to pass through content and construct validity tests, that the study cover all aspects of the study while at the same time ensure that the test measures accurately as expected.

Before the data collection instrument was approved to be used in the field, it was reviewed properly by the supervisor. Irrelevant questions that do not bring sense to the study were removed and the instrument properly arranged ready for data collection. Moreover, multilinear collinearity as a diagnostic test was used on further checks on instruments' validity.

3.7 Empirical Model

The regression model formula used was as below;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Hence,

Y = Loan Recovery

α = A constant

$\beta_1, \beta_2, \beta_3$ = Beta coefficients

X_1 =Institution Portfolio Monitoring;

X_2 = Digital Credit Technology

X_3 =Debt Collection Agencies

ε =error term

3.8 Data Analysis and Presentation

After collecting the research data, the data was then properly scrutinized and conclusions and further recommendations drawn. The data examined was in the form of qualitative and quantitative type. There was use of descriptive and inferential statistics when doing quantitative analysis which involved the use of regression analysis, standard deviation and mean, while content analysis was applied in the case of qualitative data.

3.9 Diagnostic Tests

Diagnostic tests conducted comprised of normality, multicollinearity and collinearity tests.

3.9.1 Normality Test

Assumption of multiple regression analysis is that results are reliable when data is normally distributed if not then the results are assumed not to be reliable. The test also establishes whether data sample has been extracted from a normally distributed population. Moreover a normal distribution of data is significant assumption for doing regression analysis correctly. The method used for the test was Shapiro-Wilk test to determine whether the data set is normally distributed or not.

3.9.2 Multicollinearity Test

Multicollinearity occurs when there is a large correlation between the independent variables. In a case where there is a high correlation between these predictor variables, the regression coefficient estimations in a multiple regression model become incorrect (Creswell, 2014).

The Variable Inflation Factor (VIF) assessed the correlation between the predictor variables and estimated the inflated variances as a result of linear dependency on other explanatory factors. If the VIF value is greater than 10 and the Tolerance value is less than 0.1 then multicollinearity is probably present.

3.9.3 Autocorrelation Test

Autocorrelation demonstrates a measure of relationship between present and past values of variables in a repeated pattern. The study applied Durbin-Watson as method in doing the test, the test statistic ranges from 0 to 4 where values of 2.0 indicates zero autocorrelation, below 2.0 shows positive autocorrelation while above 2.0 mean negative autocorrelation. The results of the test show whether autocorrelation was detected on not. The test carried out informs the basis of the study’s analysis and conclusion.

3.10 Operationalization and Measurement of Study Variables

Table 3.1 shows in summary how the variables are executed to meet the desired results and the determinants of the outcome.

Table 3 1: Operationalization and Measurement of Study Variables

Variable	Variable Type	Operationalization	Measurement
Loan Recovery	Dependent Variable	<ul style="list-style-type: none"> ▪ Loan Default 	NPLs (amounts and rates)
Institution Portfolio Monitoring	Independent Variable	<ul style="list-style-type: none"> ▪ Skip-trace ▪ Off-setting of debt using savings ▪ Seizing Collateral ▪ Legal Action 	5 point Likert scale
Digital Credit Technology	Independent Variable	<ul style="list-style-type: none"> ▪ Online Banking Technology ▪ Mobile tracking 	5 point Likert scale

Debt Collection Agencies	Independent Variable	<ul style="list-style-type: none"> ▪ Auctioning ▪ Contract enforcement ▪ Legal Action 	5 point Likert scale
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Source: Author (2024)

3.11 Ethical Considerations

The moral values and standards that was adhered to during the research period are known as ethical considerations. The researcher carried out the study obligation with at most sincerity, trustworthiness, and transparency. Respondent’s identity was not disclosed and neither the confidential information made public, the data obtained was strictly used for research and study. No respondent was intimidated or frustrated to furnish the researcher with information. Before the respondent shares information on the research, a brief explanation about the study was done by the researcher. The researcher acted professionally throughout the research period. Well mannered, with universally accepted code of professional conduct and behavior. The researcher attached the research permit whenever a visit to the Microfinance Institutions were done to build some level of trust on the respondents while sharing information. The researcher never engaged in any manner of malpractice like bribery of the participants, forging of responses or using the data collection as a means to seek for employment from authorities or solicit money from different companies with a lame reason of doing research.

Before proceeding for data collection, the research had to be given an approval from the graduate school after successfully submitting the research proposal. The University authorization letter was then used by the researcher to seek for license from National Commission for Science, Technology and Innovation (NACOSTI). The researcher proceeded to the field for data collection as required after receiving the research license.

CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of research findings emanating from field survey and secondary data. Figures and tables are used for presentation of findings, as is evident. Using SPSS software, secondary data from financial reports of selected MFIs were examined to produce results that would aid in addressing the study's hypothesis.

4.2 Response Rate

The study involved the use of a structured a research questionnaire to collect data from the licensed MFIs in Kenya having their headquarters situated in Nairobi City. The entire population in the study had 12 respondents as shown below in Table 4.1.

Table 4 1: Response Rate

Population	Respondents	Percentage (%)
12	12	100

Source: Author (2024)

Due to the small population size, there was an excellent response rate. There entire targeted population responded positively, no institution was left out of the survey since all the target credit officers filled the questionnaires. This translated to 100% response rate, the results depicts quality and dependability of the research done, it also show the level of dedication put by the research in ensuring the results obtained are credible and authentic. The excellent response rate was definitely sufficient for the analysis and eventually informed conclusion.

4.3 Demographic Information of human resource personnel

The questionnaires used in gathering data had a section for personal information which included gender, age range, level of education attained and number of years worked in the credit department in the MFIs.

4.3.1 Gender

The researcher considered finding out the gender of the credit managers to help know the quality of diversity the research presents. The data is shown Table 4.2

Table 4 2: Gender

<u>Gender</u>	<u>Frequency</u>	<u>Percentage</u>
Female	3	25
Male	9	75
<u>Total</u>	<u>12</u>	<u>100</u>

Source: Author (2024)

Table 4.2 shows that most of the participants were of male gender (75%) with female represented by (25%). This shows that the male gender are the majority in credit management positions than the female gender, meaning they are more aggressive on credit management matters which includes the ability to give more strength in loan recovery. Loan recovery involves aggressive follow ups for achievement of expected results.

4.3.2 Age Range

The study presented the caliber of respondent the researcher was dealing with in terms of proactivity and effectiveness as shown on the Table 4.3.

Table 4 3: Age Range

Age Range		
<u>Range</u>	<u>Frequency</u>	<u>Percentage</u>
< 35 years	9	75.0
36-49 years	2	16.7
49-55 years	1	8.3
<u>Total</u>	<u>12</u>	<u>100.0</u>

Source: Author (2024)

Table 4.3 shows that majority were less than 35 years of age (75%), followed by those between 36-49 years of age (16.7%) while those above 49 years were represented by (8.3%). This means that MFIs engage young generation and attrition of older employees as they move up the ladder or to other organization. The younger generation tend to be most preferred due to the energy and proactiveness they put recovery of loans.

4.3.3 Level of Education

The researcher needed to know the highest level of education of the respondents and how helpful they were in giving response to the questions asked, the data is as shown in Table 4.4.

Table 4 4: Level of Education

Level of Education		
<u>Level</u>	<u>Frequency</u>	<u>Percentage</u>
Certificate	0	0
Diploma	1	8.3
Undergraduate	5	41.7
Masters Degree	6	50.0
PhD	0	0
<u>Total</u>	<u>12</u>	<u>100.0</u>

Source: Author (2024)

According to Table 4.4, majority of the respondents had master's level education (50%), then undergraduate degree (41.7%) and finally diploma (8.3%), no respondent had either certificate or PhD or as the highest level of education. This demonstrates that a big percentage of the employees surveyed had bachelors' degree hence portrays how credit departments in the MFIs have a caliber of employees with adequate skills to enable them effectively act on loan recovery tasks.

4.3.4 Duration of service

The study showed the period the respondents have been in service particularly in the area of study, this is shown as per Table 4.5

Table 4 5: Duration of service

Duration of service		
<u>Period</u>	<u>Frequency</u>	<u>Percentage (%)</u>
< 2 years	1	8.3
2-4 years	3	25
4-6 years	2	16.7

>6 years	6	50
Total	12	100

Source: Author (2024)

Table 4.5 shows that 50% of participants had work experience within respective departments for more than six years, while 25% said they had worked there for between 2 and 4 years. Additional findings from the survey showed that 16.7% of the participants have a work experience in their departments for between 4 and 6 years while 8.3% had less than 2 years' experience on their current positions. This demonstrates that the majority of the respondents had worked in the credit departments for a period more than four years hence, had accurate wealth of information as regards the effectiveness of the debt recovery mechanisms applicable for respective Microfinance Institutions. The experience could suggest that they could be having ability on tackling loan recovery duties as per the expectations.

4.3.5 Digital Credit Technology

Data collected involved getting information on the use of digital credit technology. Table 4.6a presents the results;

Table 4 6: Digital Credit Technology

Digital Credit Technology		
	Frequency	Percent (%)
No	4	33.3
Yes	8	66.7
Total	12	100.0

Source: Author (2024)

The outcome in Table 4.6 further revealed that most of the MFI's (66.7%) have digital credit technology while the remaining (33.3%) do not have digital credit technology. This means that the mechanism has not been tried in the Institutions that do not use it.

The study also sought to determine when the MFIS introduced digital credit. Table 4.7 provide results on status and year of introduction of digital credit in the 12 MFIs having their headquarters situated in Nairobi City County.

4.3.6 Debt Collection Agencies Engagement

The responses given by the respondents on the questionnaires on engagement of the Debt Collection Agencies as shown in Table 4.8.

Table 4 7: Debt Collection Agency

Debt Collection Agency		Frequency	Percent
No		1	8.3
Yes		11	91.7
Total		12	100.0

Source: Author (2024)

A good number of the MFI's (91.7%) engage debt collection agencies in their quest to improve debt recovery for the respective financial institutions as opposed to the rest (8.3%). From the data collected only one institution do not engage debt collection agency while all the rest do, the researcher deduce that the institution could possibly be having other alternative ways of collecting its debts rather than the use of the debt collection agency.

4.4 Descriptive statistics

The statistics give a clear view of the data collected in relation to dependent variable (Loan Recovery), Independent variables (Institutional Portfolio Monitoring (IPM), Digital Credit Technology (DCT) and Debt Collection Agencies (DCA). This is shown in different tables as indicated; Table 4.9, Table 4.10 and Table 4.11.

Descriptive statistics for use Institution Portfolio Monitoring are shown in Table 4.8.

Table 4 8: Institutional Portfolio Monitoring

Institution Portfolio Monitoring	Very low Freq. (%)	Low Freq. (%)	Moderate Freq. (%)	High Freq. (%)	Very high Freq. (%)
To what extent does the Institution consider taking legal action against loan defaulters	3 (25)	3 (25)	2 (16.7)	2 (16.7)	2 (16.7)

To what extent does the Institution consider off-setting the debt obligation using defaulter's savings in the Institution	3 (25)	4 (33.3)	1 (8.3)	2 (16.7)	2 (16.7)
To what extent does the Institution consider seizing collateral in recovering the loans.	3 (25)	2 (16.7)	2 (16.7)	3 (25)	2 (16.7)
To what extent does the Institution consider sale of collateral in recovering loans.	3 (25)	2 (16.7)	2 (16.7)	3 (25)	2 (16.7)
To what extent does the Institution consider to physically track down the defaulters in recovering loans	4 (33.3)	2 (16.7)	3 (25)	1 (8.3)	2 (16.7)
To what extent does the Institution consider appealing to the defaulters to meet their obligation in ensuring debt repayment is done	4 (33.3)	2 (16.7)	4 (33.3)	0 (0)	2 (16.7)
To what extent does Institutional Monitoring strategy increase loan recovery	4 (33.3)	0 (0)	5 (42.7)	2 (16.7)	1 (8.3)

Source: Author (2024)

Table 4.11 results shows 33% of the institutions show high interest of taking legal action against defaulters compared to 50% noted to show low interest in pursuing legal action against defaulters 17% moderately take legal action against defaulters. At the same time, approximately 33% of the MFIs highly consider off-setting the debt obligation by use of defaulter's savings in the institution while 58.3% rarely apply that measure and only 8.3% off-set debt obligation using defaulter's savings. Notably, MFIs that highly consider seizing collateral in recovery of loans and those that rarely consider application of that measure are par at 41.7% with 16.7% consider seizing collateral moderately. 41.7% of MFIs sell collateral to recover loans more frequently than the other 41.7% who sale collateral to recover loans while 16.7% apply the sale of collateral quite moderately.

Approximately 50% of the MFI rarely consider tracking down defaulters physically while 25% highly consider tracking down the defaulters physically as a way of recovering loans as the remaining 25% moderately apply this measure. 16.7% of MFIs very highly prefer appealing to defaulters to meet their loan obligation while 50% of MFIs rarely prefer appealing to the defaulters to repay their loans as 33.3% tend to moderately apply this measure. In overall, 42.7% of MFIs agree that Institution Portfolio Monitoring strategy increase loan recovery, 25% highly admit to this fact while 33.3% of MFIs are pessimistic that the strategy works.

Descriptive statistics for use Digital Credit Technology are shown in Table 4.9.

Table 4 9: Digital Credit Technology

Measures	Very low Freq. (%)	Low Freq. (%)	Moderate Freq. (%)	High Freq. (%)	Very high Freq. (%)
We alert our debtors before the credit repayment due date	3 (25)	1 (8.3)	4 (33.3)	2 (16.7)	2 (16.7)
We use short messages to remind our debtors on loan repayment.	1 (8.3)	1 (8.3)	2 (16.7)	1 (8.3)	7 (58.3)
We call our debtors to remind them of loan repayment	1 (8.3)	1 (8.3)	3 (25)	0 (0)	7 (58.3)
We contact our debtors through direct phone calls on their registered lines in reminding them to make repayments when they fall due	0 (0)	0 (0)	1 (8.3)	1 (8.3)	10 (83.3)
We call alternative contacts given by the debtors in reaching out when the loans to debtors are in default	0 (0)	0 (0)	1 (8.3)	1 (8.3)	10 (83.3)

We contact our debtors through emails in reminding them on loan repayment	5 (41.7)	2 (16.7)	0 (0)	3 (25)	2 (16.7)
To what extent does digital credit collection mechanism assist in loan recovery	5 (41.7)	2 (16.7)	0 (0)	2 (16.7)	3 (25)

Source: Author (2024)

Table 4.12 revealed that the 33.4% of MFIs highly consider alerting the debtors before the repayment due date using digital credit technology, 33.3% rarely consider alerting debtors of their obligation while 33.3% moderately consider the use of this strategy. Further, over 66.6% highly prefer the use of short messages to remind debtors on their loan obligation, 16.7% moderately consider the use of short messages while 16.6% rarely prefer using this strategy. 58.3% of MFIs highly prefer phone calls to remind debtors to make loan repayments, 25% moderately prefer phone calls in doing reminders while 16.6% consider the use of phone call strategy. On the same note, 91.6% highly prefer the use of direct phone calls to debtors using their registered lines with only 8.3% having moderate preference on that strategy. Additionally, 91.6% of MFIs highly consider the use alternative contacts to reach out to debtors when the loans are in default while 8.3% moderately use this strategy. MFIs that highly consider the use of email to contact debtors to remind them of loan repayment is about 41.7% while 58.4% rarely prefer the use of emails in doing reminders for repayment of loans. In general, 41.7% of the MFIs highly consent to the idea that digital credit technology mechanism assist in loan recovery while 58.4% lowly consent that digital credit technology mechanism assist in loan recovery.

Descriptive statistics for Debt Collection Agencies are shown in Table 4.10

Table 4 10: Debt Collection Agencies

Measures	Very low Freq. (%)	Low Freq. (%)	Moderate Freq. (%)	High Freq. (%)	Very high Freq. (%)
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To what extent does the Institution engage with debt collection agency in collection of debts	5 (41.7)	2 (16.7)	0 (0)	3 (25)	2 (16.7)
To what extent does the debt collection agencies meet the target of recovering loan accounts forwarded to them	5 (8.3)	1 (8.3)	1 (8.3)	2 (16.7)	3 (25)
To what extent does the debt collecting agencies consider auctioning as a remedy in repayment of loans	5 (41.7)	1 (8.3)	1 (8.3)	2 (16.7)	3 (25)
To what extent does the cost associated with engagement of agencies positively impact on loan recovery	5 (41.7)	1 (8.3)	1 (8.3)	3 (25)	2 (16.7)
To what extent debt collection agency increase loan recovery	4 (33.3)	1 (8.3)	4 (33.3)	1 (8.3)	2 (16.7)

Source: Author (2024)

Table 4.13 shows the results on frequency and percentages that each measure accounted for as regards debt collection agencies. About 41.7% highly prefer engaging debt collection agencies in loan recovery process while 58.4% prefer engaging debt collection agencies in debt collection at a low rate. Some MFIs of around 16.6% indicate that debt collection agencies meet their target in recovering debts at a low rate, 8.3% moderately meet their target while 41.7% indicate that the debt collection agencies highly meet their target. Auctioning as a remedy for loan repayment is highly considered by 41.7% of MFIs, however, 50% consider auctioning at a low rate while 8.3% moderately consider it as a remedy of repayment of loans by defaulters. Around 41.7% of MFIs indicate that cost associated with engagement of debt collection agencies positively impact on loan recovery at a high frequency, 8.3% indicate that the engagement of agencies positively impact on loan recovery at a moderate frequency while 50% of MFIs confirms that the cost impact

positively at a low frequency. Consequently, 25% of MFIs agree to the fact that debt collection agencies highly increase loan recovery, 33.3% indicate that debt collection agencies moderately increase loan recovery while 41.6% confirms that debt collection agencies increase loan recovery at a low rate.

4.5 Diagnostic Tests

This section presents outcome from the diagnostic tests which includes Multicollinearity test, Normality test and Autocorrelation test.

Prior to performing the regression analysis, the two diagnostic tests—Multicollinearity and Normality test—were computed. However, the multicollinearity test's VIF value of 1.02, which is between 1 and 10, demonstrates lack of multicollinearity. There was the application of Variance Inflation Factor (VIF) results of the Multicollinearity as a reflection of issues that are non-existing as pertains multicollinearity. In this study data, all values of Variance Inflation Factor having less than ($<$) 4. The multicollinearity tests results are shown in Table 4.11.

Table 4 11: Collinearity Statistics

Variable	VIF
Institution Portfolio Monitoring (IPM)	3.122
Digital credit technology (DCT)	2.866
Debt collection agencies (DCA)	2.598

Source: Author (2024)

According to the results in Table 4.11, VIFs of 10 or more are generally considered to be suggestive of significant multi-collinearity that impairs the investigation (Ary, Jacobs, & Sorensen, 2015). Multicollinearity was not a concern, according to the results. The variables in the study had VIF values that ranged from 2.598 to 3.122 and were less than 10. This demonstrated that there were no multicollinearity problems with the data gathering

between Institution Portfolio Monitoring, Digital Credit Technology and Debt Collection Agencies.

The study conducted further conducted tests for normality and the results are shown in Table 4.12.

Table 4 12: Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LRCV	.222	12	.04	.868	12	.061
IPM	.163	12	.14	.934	12	.025
DCT	.102	12	.03	.977	12	.971
DCA	.200	12	.048	.846	12	.033

Source: Author (2024)

Table 4.12 shows results from the Shapiro-Wilk test relevant for datasets with fewer than 100 participants indicated normality results. The dataset was normally distributed in this instance because some of the values were not significant at 0.05. The results of the above-mentioned Shapiro-Wilk test were also significant at > 0.05 ($p = 0.060 > 0.05$), indicating that the data was normal hence indicating that results are reliable.

It was also significant for autocorrelation test to be done and the results of the test is indicated in the table 4.13.

Table 4 13: Autocorrelation Test

Model	R	R Square	Adjusted Square	Standard Error of the Estimate	Durbin Watson
1	.792 ^a	.627	.487	.80922	2.311

Source: Author (2024)

The study clearly shows in table 4.13 that statistic for Durbin Watson was 2.311 which suggests a slight positive correlation since it very close to the value of 2 which is the ideal

value of positive correlation. The result indicate that the model’s estimates are likely to be reliable.

4.6 Correlation Analysis

Overall goal of the research necessitated the use of multiple regression to jointly analyze the impact of Institution Portfolio Monitoring, Digital Credit Technology, Debt Collection Agency on the debt recovery rates of the institutions under investigation. The numbers in table 4.14 demonstrate the subsequent correlation between individual independent metrics and debt recovery success (p-value significant at 0.05). The nature of the strength between the variables under examination is measured by the Pearson correlation coefficient (r). The r-value indicates how much each predictor has an individual impact on Loan Recovery. According to research, there is significant correlation if the probability value p is equal to or less than 0.05. Results are shown in Table 4.14.

Table 4 14: Pearson Correlation

Correlations					
		LRCV	IPM	DCT	DCA
Pearson Correlation	LRCV	1.000			
	IPM	.333	1.000		
	DCT	.365	.513	1.000	
	DCA	.773	.433	.339	1.000
Sig. (2-tailed)	LRCV	.	.045	.022	.002
	IPM	.045	.	.044	.080
	DCT	.022	.044	.	.141
	DCA	.002	.080	.141	.
N		12	12	12	12

Source: Author (2024)

(LRCV – Loan Recovery, IPM – Institution Portfolio Monitoring, DCT – Digital Credit Technology, DCA – Debt Collection Agencies)

A very strong positive relationship is one where the r statistic is between 0.90-1.0, where the r statistic is 0.70–0.89 is an indication of a strong correlation, then 0.40–0.69 represents

a moderate correlation and 0.10–0.39 represents a weak correlation (Schober et al., 2018). Negative correlation between the variables is realized if r is smaller than 0, and if $r = 0$, there is no link between the variables. The research discovered that Institution portfolio Monitoring had a weak positive relationship with loan performance, $r = .333$, It also discovered that Digital Credit Technology, $r = .365$, had also a weak positive relationship with Loan Recovery. Further, Debt Collection Agencies had a strong positive relationship to Loan Recovery ($r = .773$).

4.6.1 Regression Analysis

The study test results that demonstrate the link between the independent variable (Debt collection procedures) and the dependent variable (Loan Recovery) are provided by the regression analysis. The model fitness in this study was evaluated using analysis of variance (ANOVA) and model summary (R square).

4.6.2 Model Summary

Table 4.14 indicates the strength of association between the Debt collection mechanisms and Loan Recovery.

Table 4 15: Model Summary

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.792 ^a	.627	.487	.80922	.627	4.481	3	8	.040	2.311
a. Predictors: (Constant), DCA, DCT, IPM										
b. Dependent Variable: LRCV										

Source: Author (2024)

The results in Table 4.14 demonstrate suitability of the model for describing the link between Debt collection mechanisms and Loan recovery. Loan recovery was found to be satisfactorily affected by institution portfolio monitoring, Digital credit technology, Debt collection agencies. This means that the independent variables for this study cover 62.7

percent of the variation in Loan recovery. The R-square value of 0.627, often known as the coefficient of determination, provided support for this. According to this coefficient, additional variables that were not considered as key in the study account for 37.3 percent of the variation in Loan recovery at MFIs.

4.6.3: ANOVA

The researcher used F-Test in applying the analysis of variance (ANOVA) since it's capable of evaluating multiple model terms simultaneously.

Table 4 16: Analysis of Variance (ANOVA)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.803	3	2.934	4.481	.040 ^b
	Residual	5.239	8	.655		
	Total	14.042	11			
a. Dependent Variable: LRCV						
b. Predictors: (Constant), DCA, DCT, IPM						

Source: Author (2024)

The regression coefficients and F statistics was evaluated using the p values (null hypothesis significance testing). The outcome of ANOVA tests are displayed in Table 4.15, showing that the F calculated was 4.481 and that the P value of 0.040 was below the threshold of a significance of 0.05. Implying that the results were statistically significant and that the relationship's model fitted the data well. The findings also suggest that the independent variables are reliable indicators of perceived employee performance. The findings also suggest that these independent variables were strong determinants of Loan recovery.

4.6.4 Regression Coefficients

The coefficient value demonstrates how the independent variables, or predictors, independently affect the outcome variable. P-values determined the degree by which the independent variable effects the dependent variable.

Table 4 17: Regression Coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.044	1.908		.547	.040		
	IPM	.194	.317	.234	.614	.007	.320	3.122
	DCT	.617	.775	.291	.796	.049	.349	2.866
	DCA	.394	.240	.573	1.646	.038	.385	2.598

a. Dependent Variable: LRCV

Source: Author (2024)

According to Table 4.16 the coefficients for DCA in Table 4.16 were $\beta = .394$, $t = 1.646$, and $p = .038$, indicating a significant impact on Loan recovery. With the coefficients for DCT $\beta = .617$, $t = .796$, $p = .049$, demonstrating a favorable effect on Loan recovery, Institution portfolio monitoring also shown a positive substantial influence on Loan recovery $\beta = .194$, $t = .614$, and $p = .007$.

The unstandardized coefficient was used in this case because it helps interpreting individual X's unique impact on Y, whereby a change of units in the result Y is correlated with a change of units in the independent variable X. In the case of standardized coefficients the impact of several predictors X_i are evaluated on the result Y, whereby, a change of 1 standard deviation in X is related to a change of β standard deviations in Y.

Based on these, the regression model: $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$ therefore becomes;

$$Y = 1.044 + .194 X_1 + .617X_2 + .394 X_3 + e$$

From the equation above, the findings imply that each unit increase in Institution Portfolio Monitoring (IPM) cause 0.194 increase in Loan recovery. For Digital Credit Technology (DCT) every unit increase results to 0.617 increase in Loan recovery. For Debt Collection

Agencies every unit increase results to 0.394 increase in Loan recovery, demonstrating a moderate positive impact.

4.7 Discussion of Findings

The goal of the study was to establish the extent to which Kenyan microfinance institutions' loan recovery is impacted by debt collection mechanisms. Data presentation and interpretation were made easier by the use of descriptive statistics for the major study variables. Additionally suitable and highly helpful in providing the essential tests of correlations and also the hypothesis with inferential statistics. The hypothesis tests for all the independent variables in relation to loan recovery had their null hypothesis rejected and alternative hypothesis accepted since the p value is less than 0.05.

Positive connection between independent Institution Portfolio Monitoring, Digital Credit Technology, Debt Collection Agencies and Loan recovery indicate that MFIs should be aware of their current performance on credit disbursement and loan recovery processes. This is for the purposes of pinpointing the various areas for improvement due to the recent growth in demand for financial credit services as well as the challenging requirement to always provide dependable services. This is corroborated by the findings of Fedaseyeu (2015) indicating the need to focus industry efforts on debt collection from a wide scope that requires thorough and intensive work with high degree of commitment.

The study's results unmistakably show that there is a substantial association between the variables in the case where debt recovery techniques are regressed jointly versus Loan recovery. R-square strong explanatory association suggests that the model is appropriate for computing the variables (debt recovery mechanisms and Loan recovery) adequately fitted the data. The studies by Khin (2016) and Jalonen & Takala (2016) was in harmony with the results of this research study revealing a positive link between debt recovery mechanisms and Loan recovery.

According to the Dynamic Capability hypothesis, firms can achieve analogy with any type of change in the business environment anytime they give new and improved forms of their

resources. Such sentiments are related to the findings, according to debt recovery mechanisms had a statistically significant relationship to Loan recovery process.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the analysis, conclusion derived from the research objectives, recommendations, and ultimately future study areas. An outline of the study's main findings, an evaluation of the research hypothesis based on the output of inferential statistic and descriptive analysis, conclusions, and recommendations is made in accordance with its objectives.

5.2 Summary

This part entails summarizing findings of the study with regards to the objectives. This study's main objective was about assessing influence of Debt Collection Mechanisms on Loan Recovery in MFIs in Kenya. The independent variables entailed Institution Portfolio Monitoring, Digital credit technology and Debt collection agencies while the dependent variable was the Loan Recovery.

The target population were the credit managers from the twelve licensed MFIs in Kenya headquartered in Nairobi City County. The researcher surveyed twelve MFIs whereby all the 12 questionnaires were completed and compiled for analysis. The secondary data included in the study spanned the fiscal years beginning in January 2018 and ending in December 2021. To quantify Loan recovery as an indicator, secondary data was obtained from the MFI's and CBK's audited and published reports.

5.2.1 Institution Portfolio Monitoring on Loan Recovery

Finding out how Institution Portfolio Monitoring affects Loan recovery was the study's first specific objective. To ascertain the link that existed between the two variables, several experiments were run.

The study discovered a moderately significant substantial positive association between Institution Portfolio Monitoring and Loan recovery. The hypothesis that there is a significant positive relationship between Institution Portfolio Monitoring and Loan recovery in MFIs was tested using multiple linear regression analysis. As a result, it was found out that a strong positive association exists between Institution Portfolio Monitoring and Loan recovery. This suggested that the research null hypothesis was rejected.

5.2.2 Digital Credit Technology on Loan Recovery

Finding out how digital credit technology affects loan recovery at MFIs was the study's second specific objective. The study's correlation analysis discovered a moderately significant substantial positive association between conflict resolution mechanisms and perceived employee performance. The association between digital credit technology and loan recovery at MFIs was found to be positively and significantly correlated using multiple linear regression analysis, which tested hypothesis.

5.2.3 Debt Collection Agencies on Loan Recovery

The study's third specific objective was to ascertain how Loan recovery is impacted by debt collection agencies. According to the study, there was high and positive connection between debt collection agencies and Loan recovery. Multiple linear regression was used to test the hypothesis and that there is a significant positive link between debt collection agencies and Loan recovery in MFIs.

5.3 Conclusion

Assessment of Debt Collection Mechanisms on Loan Recovery in Microfinance Institutions in Kenya was the topic of the study. In terms of gender equality in management roles, there were 75 percent males and 25 percent female respondents. In terms of education level, it was noted that respondents of over 50 percent had University degrees. The study also showed that half of the respondents had experience in working in credit department for more than six years. The results for mean and Standard Deviation were as follows; Institution Portfolio Monitoring (M= 2.702, SD = 1.36) and correlation results ($\beta = .194$, $p = .007$), digital credit technology ($\beta = .617$, $p=.049$), correlation results (M= 3.654, SD =

.532) and debt collection agencies ($M= 2.683$, $SD = 1.64$), Pearson correlation analysis ($\beta = .394$, $p = .038$).

To determine the effect of Institution Portfolio Monitoring on Loan recovery in the MFIs as the first objective of the study revealed a statistically moderate relationship, this is vital to MFIs and essential in addressing potential loan defaults. Monitoring loan performance in accordance to the respective portfolios helps in detection of early indications of loan defaults and further help take prior and prompt corrective measures. This could comprise; restructuring of loan repayment period to enable the fulfil their obligation in the most effective way. Therefore, positive adjustments in institution portfolio monitoring such would result into an improvement in loan recovery rates the licensed MFIs in Kenya. The statistical analysis of the coefficients showed that better loan portfolio monitoring mechanisms enhance the process of loan recovery.

To determine the effect of digital credit technology on Loan recovery at MFIs was the second objective. Digital Credit Technology enhances connection of a wide scope of client base while at the same time creates improved access to financial services. The digital platforms facilitate efficient monitoring of activities of borrowers and their repayment trends. The technology aspect enable MFIs be able to device effective ways of loan recovery. The results discovered a high positive correlation and significant relationship between digital credit technology and Loan recovery statistically. In regards to this, the aspect of using digital platform improves the efficiency on loan recovery rates within MFIs.

The third objective on effect of debt collection agencies on loan recovery had a significant statistical relationship. The expertise employed by debt collection agencies like negotiation skills, legal procedures adds value in the process of loan recovery by MFIs. The specialized personnel in the debt collection agencies can be maximized to improve on loan recovery. The statistical analysis of the coefficients revealed that an increase in the engagement of debt recovery agents results into improvement of loan recovery process. The outcomes also showed that debt recovery mechanisms used in this study collectively had a stronger effect on loan recovery process, therefore leading to a greater and sustained MFIs credit performance.

Therefore, the combination of Institution Portfolio Monitoring, Digital Credit Technology and Debt Collection Agencies has demonstrated to be quite significant in loan recovery enhancement in the MFIs in Kenya. Using integrated approach can lead to mitigation of credit risks, financial accessibility and sustainability to those that are in need.

5.4 Recommendations

This study makes the suggestion that while creating financial credit policies and norms for operation, finance strategists and decision makers should give credit performance and debt recovery strategies much thought. This is because business counts on what it gets out of loans issued, if repayments are not done as expected then it would rather be concluded that the business is non-viable.

Putting into consideration the study's findings, it is advised that the credit providers to increase the amount of resources they devote in enhancing debt collection in order to raise their credit performance index. Without proper mechanisms for debt collection, the results would be non-performing loans which may not be desirable by any business enterprise. Given that the loan recovery was significantly impacted by the debt collection procedures used in this study (based on the statistics and analysis), keeping control over credit reports is important for the long-term financial viability of different Microfinance Institutions. The reports are of course useful in monitoring performance of loans, where there is need for follow up, appropriate measures are taken.

The study reveals that Institution Portfolio Monitoring affected loan performance. When MFIs regularly monitor their portfolio, the institutions can point out probable risks and devise means of dealing with such risks. This would include early warnings and delinquency enabling them to mitigate promptly and appropriately. In as far as this objective is concerned, it is recommended that a mechanism such as Institutional Portfolio Monitoring be applied with objectivity to delivery the intended result of loan recovery. A robust real-time monitoring systems with insights to loan performance should be applied, effective utilization and incorporation of loan repayment forecasting tools to monitor

borrowers behavior and portfolio of loans. Prioritizing and doing segmentation of loan portfolios on the basis of risk profiles with the intention of identifying the best approach of dealing with borrowers effectively.

The digital credit technology as a loan recovery mechanism to be applied effectively and realize results institutions should consider enhancing borrower education and creating awareness on the application of this mechanism. Investing in digital security and infrastructure is also another way of applying the mechanism appropriately, this will secure and protect borrower data and information which in the long run affect loan recovery. The institutions could also implement repayment strategies that are personalized, this would include; data analytics and profiling of borrowers, this would reduce defaults. Other ways the researcher recommends includes; collaboration and partnership with digital credit providers to share best practices, consistent and continuous monitoring and evaluation of digital credit initiatives to assess effectiveness.

The researcher recommends that for debt collection agency to be effectively applied, there is need for prioritization communication and engagement with the borrowers early enough in the collection process. Providing repayment arrangements and terms that are flexible considering circumstances and ability to repay, this may involve negotiations and doing restructuring and changes to repayment schedules. Instituting ethical guidelines to be used by debt collection which includes respectful handling of borrowers and eliminating harassment actions and tactics. Consequently financial institutions to regularly do credit performance reviews while using debt collection mechanisms for improved efforts on loan recovery.

5.6 Areas of Further Studies

The study's findings clearly demonstrate that debt collection mechanisms account for 62.7% of the loan recovery measures employed by MFIs for successful loan recovery. In order to further understand the portion of the variation remaining in regard to the research

objective, there is need to have further studies by other scholars to focus on the remaining 37.3% which could have other elements not in the purview of this study.

Further studies for Institution Portfolio Monitoring would include investigating how effective various portfolio monitoring approaches are, function of information technology in monitoring portfolios with the aim of recovering loans effectively. Additionally, there would be need to evaluate the association between portfolio monitoring methods and strategies for risk management. Assessment could also be done on the relationship between the portfolio monitoring strategies and the sustainability of MFIs in the long-term.

On Digital Credit Technology, there could be need to examine factors that affects adoption of digital credit, impact of digital credit technology on loan repayment behavior by borrowers. Training and capacity building impact on loan recovery, credit score models significance in assessing credit worthiness, and contribution of Digital Credit Technology in financial inclusion. There could be an investigation on how Digital Credit Technology influences risk management techniques.

It is important to note that Debt Collection agencies as a mechanism to loan recovery, could provide avenue for other studies including impact client protection measures on loan recovery, cost effectiveness of outsourcing debt collection service to agencies compared to internal mechanisms in MFIs, role of technology as would be used by Debt Collection Agencies in loan recovery. There could also be the need to evaluate the effects of debt collections methods on the quality of portfolios of MFIs.

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APPENDICES

Appendix I: Introduction letter

Phelix Oluoch,
P. O Box 12039-00400, Nairobi.
Email Address: oluochphelix@ymail.com
Phone No. +254727941671

16th December 2022

Research Respondents (Credit Department),
MFIs in Kenya.

Dear Sir/Madam,

RE: INTRODUCTION LETTER

I am Phelix Tenter Otieno Oluoch a student pursuing Masters of Business Administration at Kenyatta University.

The research study I'm working on is "*Debt Collection Mechanisms and Loan Recovery in Microfinance Institutions in Kenya*". I wish to get a feedback from you from the answers you'll give on the questionnaire, kindly go through all the questions and answer appropriately.

Thank you.

Sincerely,

Phelix Tenter Otieno Oluoch

Appendix II: Questionnaire

Section A: General Information

Kindly tick inside the bracket on what you choose as your answer.

Please do not write your personal details or name on the questionnaire.

1. Gender

Male [] Female []

2. Age range

35 years and below []

36 – 49 years []

46 – 55 years []

50 years and above []

3. Highest Level of Education attained;

PhD []

Masters Degree []

Undergraduate Degree []

Diploma []

Certificate []

Other []

4. For how long have you worked in the credit department?

Below 2 years []

2—4 years []

4—6 years []

Above 6 years []

5. Does the Institution provide digital credit?

Yes []

No []

If yes, which year was the digital credit introduced?.....

6. Does the Institution engage debt collection agencies?

Yes []

No []

SECTION B: DEBT COLLECTION MECHANISMS

Part A: Institution Portfolio Monitoring

Kindly tick (✓) appropriately on the below scale to indicate your extent of agreement for each of the below statements; Where 1=Very High, 2=High, 3=Moderate, 4=Low and 5=Very Low.

Questions	1	2	3	4	5
To what extent does the Institution consider taking legal action against loan defaulters					
To what extent does the Institution consider off-setting the debt obligation using defaulter's savings in the Institution					
To what extent does the Institution consider seizing collateral in recovering the loans					
To what extent does the Institution consider sale of collateral in recovering loans					

To what extent does the Institution consider to physically track down the defaulters in recovering loans					
To what extent does the Institution consider appealing to the defaulters to meet their obligation in ensuring debt repayment is done					
To what extent does that Institution Portfolio Monitoring increase loan recovery					

Part B: Digital Credit Technology

Kindly tick (✓) appropriately on the below scale to indicate your extent of agreement for each of the below statements; Where 1=Very High, 2=High, 3=Moderate, 4=Low and 5=Very Low.

Questions/Statement	1	2	3	4	5
We alert our debtors before the credit repayment due date					
We use short messages to remind our debts on loan repayment					
We call our debtors to remind them of loan repayment					
We contact our debtors through direct phone calls on their registered lines in reminding them to make repayments when they fall due					
We call alternative contacts given by the debtors in reaching out when the loans to debtors are in default					
We contact our debtors through emails in reminding them on loan repayment					
To what extent does digital credit collection mechanism assist in loan recovery					

Part C: Debt Collection Agencies

Kindly tick (✓) appropriately on the below scale to indicate your extent of agreement for each of the below statements; Where 1=Very High, 2=High, 3=Moderate, 4=Low and 5=Very Low.

Questions	1	2	3	4	5
To what extent does the Institution engage with debt collection agency in collection of debts					
To what extent does the debt collection agencies meet the target of recovering loan accounts forwarded to them					
To what extent does the debt collecting agencies consider auctioning as a remedy in repayment of loans					
To what extent does the cost associated with engagement of agencies positively impact on loan recovery					
To what extent debt collection agency increase loan recovery					

We appreciate you for your participation!

Appendix III: List of MFIs in Kenya

S/No.	Microfinance Institution	Headquarters (Location)
1.	Caritas Microfinance Bank Limited	Nairobi, Nairobi City County
2.	Century Microfinance Bank Limited	Nairobi, Nairobi City County
3.	Choice Microfinance Bank Limited	Ongata Rongai, Kajiado County
4.	Daraja Microfinance Bank Limited	Nairobi, Nairobi City County
5.	Faulu Microfinance Bank Limited	Nairobi, Nairobi City County
6.	Kenya Women Microfinance Bank PLC.	Nairobi, Nairobi City County
7.	Key Microfinance Bank Limited	Nairobi, Nairobi City County
8.	Maisha Microfinance Bank Limited	Nairobi, Nairobi City County
9.	Muongano Microfinance Bank Limited	Muranga, Muranga County

10.	Rafiki Microfinance Bank Limited	Nairobi, Nairobi City County
11.	SMEP Microfinance Bank Limited	Nairobi, Nairobi City County
12.	Sumac Microfinance Bank Limited	Nairobi, Nairobi City County
13.	U & I Microfinance Bank Limited	Nairobi, Nairobi City County
14.	UWEZO Microfinance Bank Limited	Nairobi, Nairobi City County

Source: Central Bank of Kenya (2020)

Appendix IV: Raw Data of NPLs for the MFIs in Kenya

Serial No.	Year	Company Name	Gross NPLs & Advances (Kshs. Million)
1	2018	KWFT	4301
2	2019	KWFT	3998
3	2020	KWFT	4784
4	2021	KWFT	4959
5	2018	FAULU	2507
6	2019	FAULU	2546
7	2020	FAULU	4086
8	2021	FAULU	3917
9	2018	RAFIKI	1973
10	2019	RAFIKI	2195
11	2020	RAFIKI	2648
12	2021	RAFIKI	3262
13	2018	SMEP	326
14	2019	SMEP	395
15	2020	SMEP	465
16	2021	SMEP	542
17	2018	CARITAS	54
18	2019	CARITAS	139
19	2020	CARITAS	128
20	2021	CARITAS	120
21	2018	SUMAC	354
22	2019	SUMAC	201
23	2020	SUMAC	425
24	2021	SUMAC	468
25	2018	KEY/LOLC	100
26	2019	KEY/LOLC	104
27	2020	KEY/LOLC	86
28	2021	KEY/LOLC	86

29	2018	U&I	46
30	2019	U&I	29
31	2020	U&I	39
32	2021	U&I	40
33	2018	UWEZO/SALAAM	94
34	2019	UWEZO/SALAAM	55
35	2020	UWEZO/SALAAM	62
36	2021	UWEZO/SALAAM	0
37	2018	DARAJA	14
38	2019	DARAJA	17
39	2020	DARAJA	16
40	2021	DARAJA	15
41	2018	MAISHA	65
42	2019	MAISHA	86
43	2020	MAISHA	160
44	2021	MAISHA	286
45	2018	CENTURY/BRANCH	50
46	2019	CENTURY/BRANCH	45
47	2020	CENTURY/BRANCH	73
48	2021	CENTURY/BRANCH	93

Source: (CBK supervision annual report (2017, 2018, 2019, 2020 & 2021))

Appendix V: Gross NPLs and Advances

MFI	2017	2018	2019	2020	2021
	Gross NPLs & Advances in (Kshs. Million)	Gross NPLs & Advances in (Kshs. Million)	Gross NPLs & Advances in (Kshs. Million)	Gross NPLs & Advances in (Kshs. Million)	Gross NPLs & Advances in (Kshs. Million)
KWFT	4,073	4,301	3,998	4,784	4,959
FAULU	2,849	2,507	2,546	4,086	3,917
RAFIKI	1,705	1,973	2,195	2,648	3,262
SMEP	316	326	395	465	542
CARITAS	20	54	139	128	120
SUMAC	53	354	201	425	468
KEY	77	100	104	86	86
U & I	29	46	29	39	40
UWEZO	91	94	55	62	0
DARAJA	11	14	17	16	15
MAISHA	16	65	86	160	286
CENTURY	55	50	45	73	93
<u>TOTAL</u>	<u>9,295</u>	<u>9,884</u>	<u>9,810</u>	<u>12,972</u>	<u>13,788</u>

Appendix VI: Kenyatta University Permit



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/OL/KSU/32024/2016

DATE: 25th October, 2022

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR PHELIX TENTER OTIENO OLUOCH— REG. NO.
D53/OL/KSU/32024/2016

I write to introduce Phelix Tenter Otieno Oluoch who is a Postgraduate Student of this University. The student is registered for M.B.A degree programme in the Department of Accounting and Finance.

Phelix intends to conduct research for a M.B.A Project Proposal entitled, "**Debt Collection Mechanisms and Loan Recovery in Micro-Finance Institutions in Nairobi City County, Kenya.**"

Any assistance given will be highly appreciated.

Yours faithfully,


PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

AM/mo

Appendix VII: NACOSTI Research License


REPUBLIC OF KENYA


**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **781145** Date of Issue: **06/December/2022**

RESEARCH LICENSE



This is to Certify that Mr.. Phelix Tenter Olwoch of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: DEBT COLLECTION MECHANISMS AND LOAN RECOVERY IN MICRO-FINANCE INSTITUTIONS IN NAIROBI CITY COUNTY, KENYA for the period ending : 06/December/2023.

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