

**THE RELATIONSHIP BETWEEN FINANCIAL LITERACY AND LOAN
PERFORMANCE AMONGST CUSTOMERS OF DEPOSIT TAKING
MICROFINANCE INSTITUTIONS IN KAJIADO COUNTY**

**BY
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DECLARATION

I declare that this project is my original work and has not been submitted for examination in any other university.

Signed Date.....

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This project proposal has been submitted for examination with my approval as the university supervisor

Signed Date.....

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DEDICATION

I dedicate this project to my dear mum Ann kerubo, my Aunt Sr.Veronica Ogoti, who were consistence sources of encouragement for me to strive on the completion of this project.

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First I thank our Almighty God who gave me strength to work, good health and for His continued blessing and guidance in accomplishing this work.

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LIST OF ABBREVIATIONS

CRB	Credit Reference Bureau
CMA	Capital Markets Authority
DMFIs	Deposit Taking Microfinance Institutions
GDP	Gross Domestic Product
GoK	Government of Kenya
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROS	Return on Sales

ABSTRACT

Deposit taking microfinance institutions (DTMFs) have become important players in the Kenya economy, but at the same time they continue to face constraints that limit their loan performance. Financial literacy among their clientele is the one of the main constraint, and a number of factors have been identified to explain this problem. These include age, borrowers' perception on repayment period, fines and penalties. This study sought to find out whether there is a relationship between financial literacy and loan performance among customers of deposit taking microfinance institutions in Kajiado county, Kenya.

The study employed descriptive analysis as well regression analysis to analyze data. The target population was DTMFs clientele in the six DTMFs in Kajiado County. Stratified sampling of clientele in the six DTMFs in Kajiado County was done based on the type of DTMFs they bank. A sample of 217 of DTMFs clientele within Kajiado County was selected for the study. Quantitative data was analyzed with the use of statistical package for social sciences (SPSS).

Descriptive analysis as well as regression found that there was a negative relationship between financial literacy and loan performance. The study recommends that DTMFs should have loan systems in place to monitor and administer loan defaulters.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Schreiner (2007) financial literacy is the possession of knowledge and understanding of financial matters. Financial literacy is in most cases used in connection with personal finance matters and often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving, tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, the mechanics of a credit card, advantageous savings methods, consumer rights, time value of money.

During the last three decades, the microfinance industry has been growing at a significant rate and in several countries it has become an important sub-sector of the formal financial markets. Especially during the past few years, the growth of microfinance has been unprecedented. During 2006-2008, annual growth rates amounted to 70-100 percent for a number of countries (Sinah, 2010). The number of microfinance service providers has also increased considerably. With the growth of the industry and the saturation of markets, increased competition has been documented in many countries (Porteous, 2006).

Financial literacy is growing in leaps and bounds in the western world because of the financial intricacies that have increased in the world economy. Africa is not exempted as it is part of the global village. Financial products have increased faster than the knowledge required to acquire these products. The global financial crisis witnessed in 2008-2009 testifies to this fact.

Fundamentally, lack of financial literacy lured entrants into the mortgages market that in the long run proved costly when interest rates fluctuated to their detriment. The change in the financial scenario put many families in jeopardy and many were declared bankrupt. Theoretically, poor financial decision making is surprisingly a widespread occurrence in many Nations. This problem are always unnoticed for a long time before a crisis is reached hence the systemic effects and the costs of preserving stability may be extensive, as demonstrated by the ensuing financial market uproar and subsequent interventions after the financial crises that included bailing out of private companies by the various governments in Europe and United States of America (Gerrit, 2008)

It is believed that financial education leads to improved financial literacy and financial security for families (Garman, 1999). There has been an increase in interest in how financial education can equip individuals with the skills needed to avoid financial problems and recover from the consequences of extreme debt such as bankruptcy. Conducting a research on the effectiveness of financial education programs can guide program development and refinement (Hilgert, Hogarth, & Beverly, 2003) and help educators find a method for dealing with community needs related to family financial management.

In an environment where the range and the complexity of financial products continue to increase, it is imperative that individuals develop a clear understanding of the world of finance to be able to make choices that are most appropriate to their financial goals and needs. On the other hand, the financial world has become so complex today when compared to the generation before where a simple knowledge of how to maintain a checking and savings account at local banks and financial institutions was more than enough.

But now, consumers have to differentiate between a wide range of financial products and services available in the modern financial market (Greenspan, 2005).

The current financial crisis and consumer credit losses is driving new research to better understand how to promote more responsible and prudent individual saving and borrowing behavior. The ability of consumers to make informed financial decisions is critical to developing sound personal finance, which contributes to efficient allocation of financial resources and financial stability. Greater customer financial literacy can also be an important component to efforts to increase saving rates and lending to the poorest and most vulnerable consumers. Customer financial literacy is of particular relevance to emerging economies (Atkinson, Collard & Kempson, 2007).

As developing economies endeavor to improve the financial situation of their citizens by achieving higher economic growth rates, enhancement of customer financial literacy would help improve the financial well-being of their DTMFIs even further through improved financial performance. Knowledge and skills in financial principles are not just for accounting professionals. The nature of business is defined by competition. Without the proper understanding of financial fundamentals, DTMFIs risk performing poorly in the market. Customer financial literacy helps DTMFIs adapt to changing business environments and situations. The need for improvements in customer financial literacy is a growing concern for businesses and governments across the globe and the solution lies in gaining the right education and training (Kothari et al 2010).

1.1.1 Financial Literacy

Financial literacy is the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security. Financial literacy is not an absolute state; it is a continuum of abilities that is subject to variables such as age, family, culture, and residence.

Financial literacy refers to an evolving state of competency that enables each individual to respond effectively to ever-changing personal and economic circumstances. Financial literacy leads to more effective use of financial products and services, greater control of one's financial future and reduced vulnerability to overzealous retailers. Facing an educated lot, financial regulators are forced to improve the efficiency and quality of financial services (Danes & Hira, 2007).

This is because financially literate investors create competitive pressures on financial institutions to offer more appropriately priced and transparent services, by comparing options, asking the right questions, and negotiating more effectively. Investors on their part are able to evaluate and compare financial products, such as bank accounts, saving products, credit and loan options, payment instruments, investments, insurance coverage, so as to make optimal decisions (Cole, Sampson & Zia, 2008).

Atkinson et al. (2007) argues that financial literacy helps to inculcate individuals with the financial knowledge necessary to create household budgets, initiate savings plans, and make strategic investment decisions. Proper application of that knowledge helps investors to meet their financial obligations through wise planning, and resource allocation so as to derive maximum utility. Brown (2008) asserts that financial knowledge appears to be directly correlated with self-beneficial financial behavior.

Gallery et al. (2011) framework financial knowledge is a form of investment in human capital, and many empirical surveys establish that people need to know much more to become informed. The authors show how financial literacy shapes economic outcomes. They conclude with thoughts on research needs to better inform theoretical and empirical models as well as public policy.

Gallery et al. (2010) argue that the behavior of people with a high level of financial literacy might depend on the prevalence of the two thinking styles according to dual-process theories: intuition and cognition. Dual-process theories (Evans 2008) embrace the idea that decisions can be driven by both intuitive and cognitive processes. Dual-process theories have been studied and applied to many different fields, e.g., reasoning and social cognition (Evans 2008).

Financial literacy remains an interesting issue in both developed and developing economies, and has elicited much interest in the recent past with the rapid change in the finance landscape. Atkinson and Messy (2005) define financial literacy as the combination of consumers investors understanding of financial products and concepts and their ability and confidence to appreciate financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (Miller et al., 2009)

Financial literacy helps in empowering and educating investors so that they are knowledgeable about finance in a way that is relevant to their business and enables them to use this knowledge to evaluate products and make informed decisions. It is widely expected that greater financial knowledge would help overcome recent difficulties in advanced credit markets (Fessler et al., 2007).

Financial literacy prepares investors for tough financial times, through strategies that mitigate risk such as accumulating savings, diversifying assets, and purchasing insurance. Financial literacy facilitates the decision making processes such as payment of bills on time, proper debt management which improves the credit worthiness of potential borrowers to support livelihoods, economic growth, sound financial systems, and poverty reduction. It also provides greater control of one's financial future, more effective use of financial products and services, and reduced vulnerability to overzealous retailers or fraudulent schemes. Facing an educated lot, financial regulators are forced to improve the efficiency and quality of financial services (Falicov, 2001).

Financial education and the financial literacy are winning proposition at multiple levels, for multiple stakeholders. On an individual level ,financial literacy helps household s to use scarce resources more effectively ,choose the financial products that best meet their needs and become proactive decision makers .At institutional level informed customers makes better clients ,lowering institutional risk and contributing to a stronger bottom line. At the market level, financial literate consumers are a key element in effective consumer protection; planning pressure on institution for services that are both appropriately priced and transparent (Nelson and Wambugu, 2008).

1.1.2 Loan Performance

Loans are the major assets of banks, thrifts, deposit taking micro forum instructions. The value of a loan depends not only on the interest rate earned on the loans, but also on the quality or like hood that interest and principal will be paid. The loans is typically the largest asset and the predominate source of revenue for deposit taking microfinance institution.

The level of interest risk attributed to the microfinance's lending attributes depends on the composition of its loan and the degree to which the terms of its loans (e.g. maturity, rate structure and embedded options) expose the microfinance's revenue stream to changes in rates. (Comptrollers hand book, 1998).

Loan performance refers to the rate of profitability or rate of return on an investment in various loan products thus broadly, it looks at the number of clients applying for loans, how much they are borrowing, timely payment of installments, security pledged against the borrowed funds, rate of arrears recovery and the number of loan products on the chain. The loan products may comprise of; salary loans, group guaranteed loans, individual loans and corporate loan (puxty et al, 1991)

Since one of the main tasks of microfinance institutions is to offer loans and their main source of risk is credit risk, that is, the uncertainty associated with borrowers' repayment of these loans. A non-performing loan (NPL) may be defined as a loan that has been unpaid for ninety days or more such unpaid loans affect the microfinance loans performance for effective loan performance microfinance institutions should pay attention to several factors when providing loans in order to start the level of impaired loans, microfinance institution should also take the performance of the real economy into account when extending loans given the reality that loans delinquencies are likely to be higher during periods of economic downturn (Greenidge and Grosvenor, 2010)

1.1.3 The Relationship between Financial Literacy and Loan Performance.

Lower financial literacy is linked to lower household savings, as well as higher reported over-indebtedness. For instance, individuals with lower levels of debt literacy transact in higher-cost manners for instance in interest rates and fees and report that their debt loads are excessive or that they are unable to judge whether their debt is appropriate. In addition to greater susceptibility to fraud and abuse, the lack of financial literacy might lead to borrower behavior that increases financial fragility which may lead to greater loan losses leading to poor loan performance (Mitchell, 2005).

Informed consumers also exercise innovation-enhancing demand on the financial sector and play an important monitoring role in the market that can help improve transparency and honesty in managing organization. Furthermore, financial illiteracy appears to be particularly severe for key demographic groups: women; less educated; low income; ethnic minorities; and older respondents (Kim & Garman, 2006).

Financial education teaches the knowledge, skills and attitudes that are required for adopting good money management practices associated with spending, earning, saving, borrowing and investing money. Anticipated outcomes include changes in client behaviors and practices in money management such as saving regularly, making a budget, and working towards a financial goal. The changes lead to increased savings, reduced debt and less financial stress leading to financial performance of the organization. (Hilgert et al, 2003).

The aim of the Financial Literacy is to increase the members' assets, reduce liabilities and therefore increase the loan performance of DMFIs customers. Similarly, lack of business and management skills can magnify financial barriers for SMEs.

Low levels of financial literacy can prevent DMFIs from adequately assessing and understanding different financing options, and from navigating complex loan application procedures. Capacity building of DMFIs in terms of preparing financial statements and business plans, as well as improving their financial literacy and management training, is shown to have positive impact on DMFIs customer loan performance (Guiso & Jappelli, 2008).

1.1.4 Deposit Taking Microfinance Institutions in Kajiado County

The establishment of the microfinance Act on 2nd May 2008 saw most of the micro-finance institutions apply for licenses to allow them to take deposits from members and the general public. Deposit Taking Microfinance Limited institutions in Kenya provide financial services to Micro, Small and Medium Businesses sector at large. These institutions are licensed by the Central Bank of Kenya as a deposit taking microfinance institution providing the full range of financial services such as savings accounts and credit. In a report by CBK (2013), there are currently nine Deposit-taking MFIs operating in Kenya.

Most Deposit taking microfinance institutions in Kenya consider hiring literate employees that can manage their businesses better since they understand the concept of financial management which is key in preparing financial records and statements of the firm. Implementation of financial management skills leads to increased savings, reduced debt and less financial stress. The aim of the Financial Literacy is to increase the members' assets, reduce liabilities and therefore increase their net-worth.

Lack of adequate financial management skills can magnify financial barriers to most deposit Taking Financial institutions resulting from poor selection of profitable projects and lack of sufficient knowledge to make financial decisions.

Financial literacy can hinder a firm to adequately assess and understand different financing options, and from navigating complex loan application procedures that might be attributable to poor financial performance of the firm (GoK, 2005). Similarly, the fact that most DTMFI's accounting and financial statements are often not transparent, this makes them risky borrowers and thus less attractive to lenders since most of them are not listed (Hogarth et al. 2002).

1.2 Research Problem

In recent times, concern for the levels of financial literacy in society as a whole has grown considerably and is expected to grow even more in the future (Fox *et al.*, 2005). Lack of financial literacy is problematic if it renders individuals unable to optimize their own welfare, especially when the stakes are high, or performances of loans are to exert competitive edge on deposit taking microfinance institutions. Financial literacy empowers customers by educating them to acquire relevant knowledge and skills in financial management. Financial knowledge helps to overcome most difficulties in advanced credit markets. Financial literacy allows the credit managers to monitor compliance with credit policy, credit ceilings and credit rating criteria (Rocha, 2011)

Providing small loans through MFI is taken as a means to efforts against poverty. Wolday (2003) indicated that microfinance institution are considered as one of the important tools of reaching the poor who had no or very limited access to credit from formal sector. To enhance the poor access to credit in Kenya, the government allowed MFIs operating in the country to give loans and enhance an increase in their registration.

However, despite the encouraging increase in number of microfinance institution in the country, the rural poor's demand for credit remained untouched particularly due to the financial illiteracy (Kiro, 2012), Adman smith in his famous book "The wealth of nations" said "money, says the proverb, makes money. When you got a little, it is often easy to get more. The great difficulty is to get that little" (Hulme, 2000 quoting smith, 1937).

Empirical studies in Kenya include that done by Wanjohi (2011) cites lack of financial skills as a major challenge on loan administration among the DTMFI in Kenya. This is attributed to low level of education. CMA (2010) has also identified that MFI in Kenya suffer from constraints that lower their resilience to risk and prevent them from developing an efficient credit policy. This therefore demonstrates the influence of financial literacy on loan performance.

Njeru (2011) conducted a study on the nature of competition within microfinance industry in Kenya, which examined how lending organization predicted loan default rates among its clients. The study concluded that government need to put in place measures to reduce its public debt by supporting the private sector to make it more productive and in the process raise domestic product.

A number of studies have been done in this area among the studies include; Hassan and Renteria (2004) cite challenges associated with access to financial information are constrained by both internal and external factors. Agarwal et al. (2010) carried out a study on the effect of a mandatory financial literacy program on loan repayment performance for urban female microfinance customers in India. Microfinance opportunities (2010) carried out a market research on the usage of biometric smart card India.

Nyamute and Maina (2011) examined the personal financial practices that encompasses savings practices, expenditure practices, debt management, investment, cash management, retirement and unexpected practices of both employees who are financially educated verses those who are not. Wanjohi (2011) cites lack of financial skills as a major challenge on loan administration among the DTMFI in Kenya. Amisi (2012) examined the relationship between financial literacy and the influence of the factors that affect the investment decision.

Olima (2013) investigated on the effect of financial literacy on saving practices and social security planning of Kenya Revenue Authority employees. Barua and sane (2014) evaluated the impact of mandatory financial education program on female customers of urban microfinance institution (MFI) headquartered in Mumbai, India. None of the forgone studies have undertaken to determine the relationship between financial literacy and loan performance. In this study therefore the researcher seeks to fill the gap by carrying out the research to determine the relationship between financial literacy and loan performance amongst customers of DTMFIs in Kajiado County?

1.3 Research Objectives

The objectives of the study are:

1. To determine the relationship between financial literacy and loan performance amongst customers of DTMFIs in Kajiado County.
2. To analyze the extent to which credit management strategy influence loan repayment by DTMFIs customers.
3. To find out the extent to which financial literacy influences loan repayment.

1.4 Value of the Study

The study will be resourceful to financial institutions on the significance of financial literacy and providing financial advice to their customers on the better methods of investing their capital and managing their businesses in order to improve loan performance.

The findings of this study will aid the government in policy setting and development of models that would stimulate increased financial literacy through training and capacity building programs to enhance loan performance of DMFIs in Kenya in order to create more employment and grow the economy.

Researchers and academicians can also use this study to build on the existing literature on the importance of financial literacy in managing and running a business to boost financial performance of firms. The findings of this study will be used as source of reference and as a basis for further research to those interested in this area or other related topics.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviewed selected literature that summarizes the theoretical review, empirical studies, the determinants of loan performance and the summary of the literature review.

2.2 Theoretical Framework

The study reviewed key theories that support financial literacy and loan performance. These theories are namely Social learning theory and psychosocial theory.

2.2.1 Social Learning Theory

Bandura, et al., (1961) posits that social learning theory illustrates how social factors such as sources of information & financial advice shape a person's behavior. The financial attitudes and values people have about money come from their environment. The effects of social interactions on individual behavior have been modeled, tested and applied to a wide variety of situations (Bandura, 1977).

Social interaction may affect financial decisions as people receive and process information through interacting with others. In a US 401(k) pension plan participation study, Greenspan (2002) found that peer effects influenced retirement savings decisions because many people had not carefully thought through the advantages and disadvantages of particular plans for themselves. Many employees used information from peers when deciding on participation as they may lack their own reasoned information for making sound retirement investment decisions.

Moreover, beliefs about social norms will additionally influence employee decisions due to a desire to behave similarly to those in their social group (Gravetter & Forzano, 2003).

According to this theory, investors are likely to make investment decisions based on the information available in the market, if investors have information about an investment which is likely to generate higher returns in future, investors are more likely to invest in such an investment to accrue higher returns in future (Goel & Dolan, 2003). The proponents of this theory, the behavioral theorists believed that learning led to a permanent change in behavior, observational learning demonstrates that people can learn new information without demonstrating new behaviors especially when considering making financial decisions (Glaeser & Scheinkman, 2003).

2.2.2 Psychosocial Theory

Psychosocial theory focuses on developmental conflicts that are also relevant to financial behavior: trust, will power, and self-regulation. Financial security requires one to trust banks and other financial authorities in being responsible with one's money. Allon (2012) found that mistrusting individuals were less likely to buy stocks, and, if they did, they bought less. As evidenced by the recent financial crisis, the ability to ascertain who to trust is critical to making appropriate financial decisions (Idowu, 2010).

Psychosocial theory supports financial literacy education for preadolescents, the stage at which will power and self-regulation is hypothesized to develop. According to this theory, the engagement in positive financial decisions is dependent on the positive identity, self-confidence and independence that develops during adolescence and continues into adulthood (Lusardi, & Mitchell, 2005).

Here the role of primary caregivers is critical, but the social and cultural norms of the family and community are also important. Falicov (2001) concluded that the social context of family life, individual boundaries, and human interactions play a significant role in how money is viewed among Latinos and Anglo-Americans. This is illustrated by research showing that the percentage of stockownership in a community makes an individual more likely to participate themselves (Atkinson & Messy, 2005).

2.3 Determinants of loan performance

2.3.1 Age

The age of DTMFIs client determines loan repayment. The DTMFIs client between 18 and 25 years old experience a problem in repaying their loan compared to the old borrowers who are more responsible and disciplined in repaying their loans. Lack of experience in the business involved might be the reason that the young borrowers has difficulties in repaying their loans.

In addition young borrowers are not committed to repay their loans since they can still receive microcredit loans from other microfinance institutions because they have more opportunities since they are young. Old borrowers do not experience difficult in loan repayment since their income is stable and they have prior experience in managing their finances (Roslan and Mohd, 2009)

2.3.2 Fines and Penalties

Fines and penalties rates may substitute each other due to the multiplicative linkages as long as neither of them is set to zero (Kirchler et al 2007). Higher fines makes evading loan more hazardous for customers.

The higher the penalty and the potential audit probability, the greater the discouragement for non-compliance. The most extreme penalties will have no effect, if it is common knowledge that virtually does not occur. On the other hand fines should be high enough to decrease the expected rate of evasion.

In addition a prepayment clause can be included in the loan contract. Soft prepayment terms can allow prepayment without penalties do not allow any exceptions without penalty. Penalties may take different version such as early repayment charge, early repayment penalty, early redemption fee and financial charge. Early repayment charge is equivalent to one or two month's interest. The earlier in the term you repay the loan the higher the charge as the interest component of loan repayment makes up a higher proportion of repayment, the earlier in the term it is. An early repayment charge can add a considerable cost your loan.

2.3.3 Perceptions of borrowers on repayment period.

Perception of borrowers on repayment period is another determinant of loan repayment. Some borrowers prefer repayment period that is longer than one year while others prefer repayment period that is less than a year (Abafita, 2000). Non defaulters benefit by fully and timely paying their loans. Some of the benefits they receive are freedom of penalty, building of good relationship with the loan provider, access to the next higher loan and to make savings stable.

On the other hand according to the defaulters the reasons for not repaying their loans are shortage of working capital and problem in work place and improved use of loan which is also another reason for default (Norell, 2000). Low supervision by loan officers of the institution and personal problems of the borrowers like illness is also the reasons for default.

2.4 Empirical Review

Hassan and Renteria (2004) cite challenges associated with access to financial information are constrained by both internal and external factors. Internally, most MFIs lack training management capacity, so they have trouble managing funds owed to the business example disbursements, repayments and reconciliations. From external perspective, MFIs are regarded as insecure and costly to deal with because they lack required collateral and capacity to manage disbursed loans, hence they don't access to credit because of high intermediation costs, including the cost of monitoring to minimize constraint.

Banerjee and Duflo (2004) examined loan on 253 small and medium borrowers from MFI in India both before and after they become newly eligible for the program. Specifically the size of the program was changed in 1998 which enabled a new group of medium-size firms to obtain loans at subsidized interest rates. Naturally these firms began to borrow under this favored program, but instead simply substituting subsidized credit for more costly finance.

Oladebo and Oladebo (2008) examined the determinants loan repayment among smallholders farmers in ogbomoso Agricultural zone in Nigeria .His results from multiple regression analysis showed that amount of loan obtained by farmers ,years of farmers experience with credit farmers and farmer's level of education positively influenced loan repayment.

Gatakaa (2010) conducted a census survey to investigate the relationship between financial literacy and personal financial management practices, the research involved 43 Commercial Banks in Kenya registered and licensed under the banking act as at 31st December 2009 as per the Central Bank of Kenya. The study noted that, personal financial literacy does influence the lending decision by increasing the chances of approval of the loan facility; client understanding of the decisions and consequences is key and demonstrating serviceability. Customers therefore have little or no access to personal financial information from banks beyond the scope of the products. Most banks also have a variety of products and services tailored towards the key personal finance areas: Financial Position (Net worth), Protection, Tax planning, Investment and accumulation goals, Retirement, planning and Estate planning.

Agarwal et al (2010) carried out a study on the effect of a mandatory financial literacy program on loan repayment performance for urban female microfinance customers in India. He found out that microfinance groups that received loan literacy training had higher repayment performance, confirming the positive effect of financial literacy. Participants in voluntary financial education program are likely to fall behind on their mortgage payments indicating that increased financial literacy leads to lower delinquency rates.

Microfinance opportunities (2010) carried out a market research on the usage of biometric smart card India. Smart card is a key product of microfinance institution which can be used for opening and managing bank account savings account. However to date usage rates among account holders are low (15%) instead most frequently save at home in small amounts and invest in gold as hedge against emergencies. What provide these low rates of card usage .The market research provided the following answers; with respect to the new smart cards; clients do not know if it earns interest, do not understand the agent is linked to the bank. In this circumstance the financial education product is a “flip book “that guides both the agent ant the client along conversation path (Microfinance opportunities).

Nyamute and Maina (2011) examined the personal financial practices that encompasses savings practices, expenditure practices, debt management, investment, cash management, retirement and unexpected practices of both employees who are financially educated verses those who are not. The results show that there is a significant difference between the personal financial management practices of the finance and the non-finance literate respondents. It can be concluded that customer financial literacy influences personal financial management practices.

Wanjohi (2011) cites lack of financial skills as a major challenge on loan administration among the DTMFI in Kenya. This is attributed to low level of education. CMA (2010) has also identified that MFI in Kenya suffer from constraints that lower their resilience to risk and prevent them from developing an efficient credit policy.

Amisi (2012) examined the relationship between financial literacy and the influence of the factors that affect the investment decision. A modified likert scale questionnaire was used and the results of the study indicated that the financial literacy was far from the needed level. The financial literacy level was found to have a significant effect on investment decision making by the DTMFIs. Since these decisions are ongoing, requiring members to periodically monitor and evaluate the performance of their chosen fund and investment option, and decide whether to switch to another fund or investment option.

Olima (2013) investigated on the effect of financial literacy on saving practices and social security planning of Kenya Revenue Authority employees. The study findings indicated that financial literacy impacts to a great extent on the financial management because financial education programs guide program development and refinement. The study findings indicate that generally financial literacy to a great extent affects personal financial management among the respondents. However, most participants considered retirement planning less important, were less aware of the effects of estate planning, insurance planning and tax planning.

Barua and sane (2014) evaluated the impact of mandatory financial education program on female customers of urban microfinance institution (MFI) headquartered in Mumbai ,India .They exploited the variation in timing of financial literacy program across the branches to identify if there was an improvement in the loan payment performance. They found out that financial literacy led to decline in the total number of days taken to make loan repayments as well as the number of months in which the repayment was late.

2.5 Chapter Summary

This chapter examined the determinants of loan performance such as age, financial literacy, perceptions of borrowers on repayment period and fine and penalties. It also delves into empirical review relating to loan performance such as; the impact of mandatory financial education on female customers of urban microfinance institution (MFIs) headquarter in Mumbai, India (Barua and Sane, 2014) who found out that financial literacy led to decline in the total number of days to make loan repayments as well as the number of months in which the repayment was late.

The contribution of this research is to add knowledge to the existing literature by examining the effect of financial literacy on loan performance. Loan performance is a unique area in addressing DTMFIs clientele. It puts emphasis on indicators such as age, perception of borrowers on repayment period, penalties and fines, financial literacy, the existing literature primarily focus on large countries such as India and America, and only limited focus has been directed to smaller countries like Kenya. This study therefore intends to address the knowledge gap on the relationship between financial literacy and loan performance amongst customers of Deposit Taking Microfinance Finance Institutions in Kajiado County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedures that were used by the researcher to collect and analyze data collected from the field in the study. It covers the following areas: Research design, target population, sampling procedure, data collection procedure, reliability and validity data analysis and tests of significance.

3.2 Research Design

Research design refers to how data collection and analysis are structured in order to meet the research objectives through empirical evidence (Cooper & Schindler, 2006).

The study used descriptive research design which entails describing the characteristics of the population or a phenomenon. Descriptive research design will be used for this study since it is the most suitable method for collecting information about people's attitudes, opinions, habits or any of the variety of social issues (Orodho, 2008)

This advantage of this design is that the researcher is able to use various forms of data as well as incorporating human experience. It gives researchers the ability to look at what they are studying in various aspects and provides a bigger picture as opposed to other types of research design (Kothari, 2004).

3.3 Population

According to Cooper and Schindler (2006), a population is the total collection of elements which the researcher wishes to make inferences. The target population of this study was DTMFIs clientele in the six Deposit taking Microfinance institutions in Kajiado County. Kajiado County has a total of 2,123 account holders according to Kenya Bankers Association.

3.4 Sampling Design

The study adopted stratified sampling. According to Bryman (2008), sampling is the process of selecting a number of individuals for the study in such a way that the individuals represent a larger group which they are selected from. It involves dividing the population into significant strata based on different types of DTMFIs. Mugenda & Mugenda (2003) recommended that a sample size of more than 30 or at least 10% is usually appropriate for social sciences. The study will take 10% of each of the strata population. The study utilized a sample size of (217) DMFIs clientele chosen using the frame below.

<u>DTMFIs</u>	<u>Target population</u>	<u>Sample size 10%</u>
Faulu Kenya DTM Ltd	381	39
SMEP DTM Ltd	352	36
KWFT DTM Ltd	589	60
UWEZO DTM Ltd	147	15
SUMAC DTM Ltd	293	30
<u>Rafiki DTM Ltd</u>	<u>361</u>	<u>37</u>
	<u>2123</u>	<u>217</u>

Source: Kenya Bankers Association

3.5 Data Collection

Primary data is raw data that is collected by the researcher for analysis under consideration. Secondary data is information that has previously been collected that is utilized by a person other than the one who collected the data; this can be obtained from books, journals and electronic materials.

The study used both primary and secondary data. Primary data will data will be collected by use of a structured questionnaire. The questionnaire tested the relationship between financial literacy of the DTMFIs clientele. This will enable the researcher to get quantified data that is helpful in drawing conclusions and giving recommendations on the relationship between financial literacy and loan performance amongst customers of DTMFIs in Kajiado County. Secondary data inform of audited financial statement of Deposit taking Microfinance institution was collected for five years to infer loan performance of the firms. Secondary data was collected from the DTFIs under study to determine the loan default rate over the study period.

3.6 Data Analysis

Questionnaires received from respondents were be checked for completeness with repeat calls being made for incomplete questionnaires to maintain the number of respondents. Categorization and coding was then done and data entered into SPSS for windows version 20 for analysis. Both descriptive and inferential tests were used in the analysis. Data was described or summarized using descriptive statistics such as mean and frequencies, which help in meaningful describing of the distribution of responses. Various inferential statistics were used to infer population characteristics from the sample. Pearson’s correlation coefficient was used to establish relationships between variables.

3.6.1 Analytical Model

A Multiple linear regression model was used to predict loan performance using the four independent variables in the study: Age, financial literacy, perception of borrowers on repayment period and fines and penalties. In addition, the β coefficients for each independent variable generated from the model were be subjected to a z –test, in order to test each of the hypotheses under study. The regression model to be used to test is shown below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \text{ Where;}$$

Y – Loan performance

α – Constant

ε - Error term

$\beta_1, \beta_2, \beta_3$ and β_4 – Coefficient indicating rate of change of loan performance Age, Financial literacy, fines and penalties and perception of borrowers on repayment period change

X_1 - Age

X_2 – Financial literacy

X_3 - Fines and penalties

X_4 – perception of borrowers on repayment period

ε - Error term

3.7 Test of significance

All the above statistical tests were analyzed using the Statistical Package for Social Sciences (SPSS); version 20. The one sample z-test was used to determine significance of variations in the responses. This was determined with the aid of p values at 5% level of significance.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter focuses on data analysis, presentation and interpretation .It presents data analysis as per the study objectives, presentation of data by use of pie charts, tables and data interpretation. It presents the research findings on the relationship between financial literacy and loan performance amongst customers of deposit taking microfinance institutions in Kajiado County. Descriptive statistics were used to analyze the data. In descriptive data, relative frequencies were used in some questions.

4.2 Response Rate

Out of 217 respondents, only 160 filled and returned their questionnaires which make 74% response rate. This response rate was sufficient and representative and confirms to Mugenda and Mugenda (2003) stipulation that response rate of 50% is adequate, a rate of 60% is good while a response of 70% and over is excellent. This commendable response rate was due to extra efforts that were made via follow –up emails to remind the respondents to fill in and return the questionnaires.

4.3 Demographic Information

The study initially sought to ascertain the demographic information on the respondents involved in the study with regard to gender, age and highest level of education. The demographic information points out at the respondent’s suitability in answering the questions on the relationship between financial literacy and loan performance amongst customers of deposit taking microfinance institutions in Kajiado County.

4.3.1 Gender distribution of the respondents

The study sought to establish the gender of the respondents and the findings are shown in the Table 4.1 below.

Table 4.1: Gender distribution of the respondents

Gender	Frequency	Percentage (%)
Male	100	63
Female	60	37
Total	160	100

Source: Research data

From the findings, majority (63%) of the respondents were male while (37%) were female. This implied that kajiado county has more male than female being the clientele of deposit Taking Microfinance Institutions.

4.3.2 Distribution of respondents by age bracket

The respondents were asked to indicate their age bracket. The study findings are illustrated in the Table 4.2 below

Table 4.2: Distribution of respondents by age bracket

Age bracket	Frequency	Percentage (%)
20-30	15	9.38
30-40	30	18.75
40-50	70	43.75
50-60	25	15.63
Above 60	20	12.50

Source: Research data

From the findings 9.38% of respondents were 20-30 years old, 18.75% of the respondents were 30-40 years old, 43.75% of the respondents were 40-50 years old, and 15.63% of the respondents were 50-60 years old while 12.50% were above 60 years old. The findings indicate that the majority of Deposit Taking Microfinance institutions Clientele are aged between 40-50 years old.

4.3.3 Highest level of education of the respondents

The study sought to establish the highest level of education for the respondents. The results are shown in the Table 4.3 below.

Table 4.3: Highest level of education of the respondents

Highest level of education	Frequency	Percentage (%)
High school	21	13.13
Certificate/diploma	82	51.25
Degree/professional	41	25.63
Post graduate	16	10.00
Total	160	100

Source: Research data

From the Table 4.3, 13.13% of the respondents are O level and A levels, 51.25% are certificate and diploma holders, 25.63% of the respondents are degree and professional while 10.00% of the respondents are post graduate level of education. This explains the level of literacy among the customers of deposit taking microfinance institutions in Kajiado County.

4.4 Loan Performance Level

The results in table 4.4 reveal that most of DMFs clientele do not file their Loan returns on time (mean = 2.7). They also do not pay the right amount of loan on time (mean = 2.74). These results indicate low levels of loan performance. From the above findings, monitoring performance requires establishing and maintaining current accounts of holders and management information systems covering both ultimate borrowers' and third party agents or credit consultants involved in the loan system as well as appropriate and prompt procedures to detect and follow up on loan defaulters, and delayed payments. Such measures require establishing both a reasonable risk of detection as well as applying penalties effectively.

Table 4.4: Loan performance Level

	X	Std	Skewness	Kurtosis
The firm files its return on time	2.7	2.24	0.64	1.423
The business pays the high amount of return on time	2.74	0.28	-1.74	2.6
Total	5.44	2.52	-1.1	4.023

Source: Research Data

4.5 Age

Findings on Age compliance shows that respondents were satisfactory on the age of filling a loan return (mean=2.85) which confirms that the respondents agreed that the age of filling a loan return is fair, also respondents believe the age of defaulters is fair (mean= 2.88).

Similarly, Age bracket's among loan seeker (mean=3.46)

Table 4.5: Age

	Mean	Std	Skewness	Kurtosis
How do you rate the effect age for filing a loan return	2.85	1.243	0.168	-1.203
How do you rate the age of loan defaulters	2.88	1.214	-0.342	-1.224
Total	3.46	1.03	-0.344	-0.422

Source: Research Data

4.6 Fines and Penalties

Findings on Fines and Penalties reveal that the enforcement is not very strong (mean=3.29), respondents were not certain on whether the penalty is lower than their tax saving due to not complying with the loan requirements (mean=3.06). Finally, respondents seemed to beware on whether serious enforcement and penalty by the regulator may result if they do not comply (mean=3.04)

Table 4.6: Fines and Penalties

	Mean	Std	Skewness	Kurtosis
Penalty rates are very low and I can afford to pay	3.29	1.186	0.016	-1.050
Enforcement is weak	3.26	1.278	-0.223	-1.201
I believe that the penalty is lower than my saving due to not complying with tax laws	3.06	1.672	-0.086	-1.231
Serious enforcement and penalty by the MFI may result if I do not comply	3.04	1.445	-0.004	-1.153
Fines and penalties	3.13	0.7651	0.59	-0.046

Source: Research Data

4.7 Perception of borrowers on repayment period

Regarding findings on Perception of borrowers on repayment period in table 4.5, respondents agreed that since supporting documents do not need to be sent to the regulator, they can manipulate the figure in the return (mean =4.35), respondents were not certain if they are detected on late payment since the supporting document are not properly kept (mean=2.87), respondents disagreed that the authority has limited capability to investigate all income reported to them so they have an opportunity not to report their exact income (mean=2.42) and they were uncertain on the probabilities of being detected by the authority for not declaring the exact income that they receive as a loan (mean=2.65). In general, findings on perceived opportunity for not complying was found to be (mean=3.21)

Table 4.7: Perception of borrowers on repayment period.

	Mean	Std	Skewness	Kurtosis
Since the supporting documents are not properly kept, I can manipulate the date of repayment.	4.35	0.689	-1.244	2.886
If detected not reporting on time, I believe that the authority is tolerant towards my offence and most probably it I will escape without any punishment	2.87	1.318	0.023	-1.542
I believe the authority has limited capability to investigate all income reported to them so I have an opportunity not to report my loan obligation.	2.42	1.243	0.341	-1.067
I believe that the probabilities of being detected by the authority for not declaring my loan returns are low.	2.65	1.116	0.124	-1.213
Borrowers prepayment period	3.21	0.922	0.187	-1.143

Source: Research Data

4.8 Financial literacy

Further, loan knowledge and education in form of financial literacy was inquired from the respondents. From the study results, respondents are not certain on how to declare actual income received from all sources to the authority (mean=2.87). Also, respondents are not certain on how to keep records/documents pertaining to loan and expenditure for a period of seven years after submission of the loan return (mean=2.68) and they seem not to understand that they should pay their due within the prescribed period from the date of issue of the notice of assessment or within the stipulated period (mean=2.89). It was revealed that respondents are not very sure that they should obtain clearance certificate after loan repayment (mean=2.88). Further, respondents seem not to know which income should be included or excluded in determining their obligation (mean=2.65). Generally knowledge and education, that is financial literacy was (mean=2.57)

Table 4.8: Financial literacy

	Mean	Standard deviation	Skewness	Kurtosis
I know how to declare actual income received from all sources of MFIs	2.87	1.128	0.134	-1.118
I know how to keep records/documents pertaining to loans for a period of seven years after receiving of the loan	2.68	1.332	0.322	-0.89
I understand that I should repay loan and interest due within the prescribed period from the date of issue of the Notice or within the stipulated period	2.89	1.263	0.132	-1.121
I know I should obtain a clearance certificate after repayment	2.88	1.284	0.138	-1.223
I know I should obtain a clearance certificate after repayment	2.65	1.274	0.732	-0.623
Financial Literacy	2.57	1.0423	0.457	-0.708

Source: Research Data

4.9 Regression

A Multiple linear regression model was used to predict loan performance in the study. The prediction was carried out based on the effect of the four independent factors: age, financial literacy, fines and penalties and perception of borrowers. In addition, the b coefficients for each independent variable generated from the model was subjected to a t-test, in order to test each of the hypotheses under study. The study thus came up with a model summary, the ANOVA for the effect sizes and the regression model as presented in table 4.9, 4.10 and 4.11. From table 4.9, the findings indicated that the model correlation coefficient was 0.705 which indicated that the model predicted over 70% of the change in the independent variable. This relationship was significant considering the coefficient of determination value of 0.445. The model was adequate in this case as indicated by the Durbin-Watson statistic value of 1.827 which is in the range of 1 to 2.

Table 4.9: Model Summary

R	R ²	Adjusted R ²	Std Error of the estimate	Durbin Watson
0.705	0.445	0.538	0.4804	1.827

Source: Research Data

a) Predictors: (constant)

Age, Fines and Penalties, Financial Literacy and Perception of borrowers

b) Dependent variable:

Loan performance

ANOVA analysis

The ANOVA model in table 4.11 showed that the regression model was also adequate. The effect size of the regression model was shown to be over 75 that contributed by the residual mean sum of squares. The F-ratio was 75.524 at 4 degrees of freedom which are the four factors. This represented the effect size of the regression model and was significant with a p-value of 0.000.

Table 4.10: ANOVA model

Sum of squares	Df	χ^2	F	Sig
120.04	5	23.59	75.524	0.000
66.056	155	0.319		
172.129	160			

Source: Research Data

Dependent Variable: Loan performance level

Predictors: (Constant), Age, Fines and Penalties, Financial Literacy and Perception of borrowers on repayment period.

4.10 Coefficients Model

The regression results in table 4.11 show that each of the predicted parameters in relation to the independent factors were significant; $\beta_1 = -.317$ (p-value = 0.000 which is less than $\alpha = 0.05$) which implies that we reject the null hypothesis stating that there is no significant relationship between compliance and Loan compliance level. This indicates that for each unit increase in the negative effect of financial literacy, there is 0.317 units decrease in loan performance level. Furthermore, the effect of Age was stated by the t-test value = 6.531 which implies that the standard error associated with the parameter is less than the effect of the parameter.

The table also shows that $\beta_2 = 0.331$ (p-value = 0.000 which is less than $\alpha = 0.05$) which indicates that we reject the null hypothesis stating that there is no significant relationship between loan knowledge and education and loan performance. This implies that for each unit increase in knowledge and education, there is up to 0.331 unit increase in compliance. Also the effect of knowledge and education is shown by the t-test value of 6.557 which implies that the effect of knowledge and education surpasses that of the error by over 6 times. The value of $\beta_3 = 0.111$ (p-value = 0.021 which is less than $\alpha = 0.05$) which implies that we reject the null hypothesis stating that there is no significant relationship between fines and penalties and loan compliance and performance level. This indicates that for each unit increase in fines and penalties, there is up to 0.111 units increase in performance. The effect of fines and penalties is stated by the t-test value = 2.334 which indicates that the effect of penalties and fines is over two times that of the error associated with it.

The findings also showed that β_4 was -0.194 (p-value = 0.000 which is less than $\alpha = 0.05$) which implies that we reject the null hypothesis that states that there is no significant relationship between perception of borrowers and loan compliance levels. This implies that there is up to 0.194 unit decrease in compliance for each unit increase in perceived opportunity. The rule of thumb was applied in the interpretation of the variance inflation factor (VIF). From table 4.11, the VIF for all the estimated parameters was found to be less than 4 which indicate the absence of multi-collinearity among the independent factors. This implies that the variation contributed by each of the independent factors was significantly independent and all the factors should be included in the prediction model.

Table 4.11: coefficient Model

	Standardized coefficients	standardized coefficients	Collinearity statistics				
	B	Std error	Beta	T	Sig	Tolerance	VIF
constants	-0.391	0.274	-	-1.428	0.155		
Age	-0.302	0.046	-0.317	-6.531	0.000	0.725	1.379
Knowledge and education	0.386	0.059	0.331	6.557	0.000	0.669	1.495
Fines and penalties	0.169	0.072	0.111	2.334	0.021	0.759	1.317
Perception of borrowers	-0.208	0.057	-0.194	-3.646	0.000	0.600	1.666

Source: Research data

4.11 Discussion of the findings

As stated that Age has no significant effect on loan performance level, research findings show inconsistency with the hypothesis hence, Age was negatively correlated to performance level (coefficient estimate ($\beta_1 = -0.317$, p value $=0.000$). High compliance (performance) has been found to diminish the competitiveness of the country in terms of loan attractiveness thus authorities are interested in making the legislations simpler in order to avoid this situation.

Financial literacy has no significant effect on loan performance. Research findings are not in agreement with the hypothesis (coefficient estimates ($\beta_2 = 0.331$, p value $=0.000$). A high level of knowledge and education contributes immensely to loan compliance. This in agreement with studies by (Kasipillai, Norhani, and Noor, 2003) that knowledge relates to compliance due to its effect on understanding about loan regulations and information pertaining to the opportunity to default on repayment.

A study by (Mohd, 2010) asserts that knowledge is necessary to increase public awareness on rules and the role of loan compliance in national development. Once individuals have the knowledge pertaining the importance of compliance, they will be influenced to comply with loan repayment without any enforcement or pressure on. Education programs organized by the authority or other public education institutions are needed to enhance borrowers' ability to understand Self-assessment system since it involves calculation of amount of interest needed to be paid. If knowledge is enhanced, payers will readily accept forms of payment of loan like the SAS (Self-Assessment system). (Chan et. al. 2000) argues that greater education leads to high compliance since individuals who are well educated understand well the loan system, have high levels of moral development and thus they are highly likely to comply with loan repayments.

Findings from the loan administration view point revealed that educating borrowers' on their social responsibility to pay would in turn influence payers to comply with the repayment. Therefore, assisting them by ensuring proper flow of quality information through media and educating them results in high compliance in paying hence potential to yield greater revenue than if it were spent on enforcement activities. Findings that show fines and penalties have no significant effect on loan performance. Research findings are not in agreement with the hypothesis since fines and penalties has coefficient estimate ($\beta_3 = 0.111$, p value =0.021), hence hypothesis 3 does not hold. Higher fines and penalties simply reduce the cases of defaulting thus improves loan performance.

Hypothesis 4 states that perceived opportunity for defaulting has no significant effect on performance. Research findings show inconsistency with the hypothesis; hence borrowers perception on repayment period was correlated to loan compliance, (coefficient estimates ($\beta_4 = -0.194$, p value =0.000)).DTMFIs clientele who had high perception on payment period reacted to this message by increasing their payment in order to clear they outstanding loans on the specified period.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary findings and discussion of the study. It also covers recommendations for further studies on related issues on study not well covered as well as recommendation on the relationship between financial literacy and loan performance among customers of DTMFIs in Kajiado county, Kenya. The study finally addresses the limitation of the conclusions of this study.

5.2 Summary of findings

The objective of the study was to establish the relationship between financial literacy and loan performance amongst customers of DTMFIs. Descriptive research design was used to attain this objective. The target population was the DTMFIs clientele in the six DTMFIs in Kajiado County. A total of 217 DTMFIs clientele from the six DTMFIs were selected for analysis in the study. Data from 160 collected representing 74% response rate. Descriptive statistics such as frequency distribution, percentages, variations and measures of central tendency were used to summarize basic features of the study. The statistical package form for social sciences (SPSS) version 20 was used to perform the analysis of quantitative data. Regression analysis was used to assess the independent variable on dependent variable.

Findings on gender revealed that there are more male than females among the respondents indicating that more men than female are taking loans. It was also affirmed that majority of the respondents were between the age bracket of 40-50 years. It was also brought to light that majority of respondents were fairly educated, those with a diploma contributing the highest percentage followed by those with an undergraduate degree affirming that there were moderate levels of literacy among the respondents. Findings on information about the loans affirmed that majority of the loan holders have been in operation for between 6-10 years confirming the recent boom in the sector.

Findings on characteristics acknowledges that the use online returns was unknown to most of the respondents and majority of the respondents have never been audited as compared to those who have been audited and a small percentage of the respondents have attended a formal course organized by credit reference bureau or university.

The study found that compliance levels among these DTMFIs are low. On matters pertaining being penalized by authority as a result of not filing returns, majority of the respondents have not been penalized. The study also found out that most of the respondents under reported their income and over claimed deductions. This means that higher compliance costs will reduce loan compliance and performance levels. The study also examined the effect of knowledge and education on loan performance level. The findings show a strong positive relationship between the two implying that enhanced knowledge on loans will in turn enhance compliance. An assessment of the effect of fines and penalties on performance levels revealed that there is a significant positive relationship between them. This implies that an effective use and enforcement of fines and penalties on defaulter will enhance levels of compliance and performance levels.

5.3 Conclusion

These study findings provide direct evidence that Age is a contributory factor in performance, and an indication of its magnitude effect. From the study findings there is enough proof to conclude that age is associated with high levels of loan performance. The study also provides some preliminary evidence that fines and penalties play a vital role in improving loan performance. Specifically, for a system with fair interest rates of fines and penalties, is likely to improve loan performance. Finally, the study concludes that financial literacy has a significant effect on loan performance. It is therefore prudent for the loan system to enhance education on how to file returns and the importance of repaying loans.

5.4 Recommendations

From the study findings it was deduced that age has a profound effect on performance. The findings suggest loan systems with low age bracket are most likely to be complied with. Therefore, the compliance cost should be in a way that does not encourage DTMFIs clientele to evade and default. The study finds strong support for the argument that fines and penalties impacts highly on compliance, thus there should be moderate levels of fines and penalties to employ. This way, DTMFIs clientele will be encouraged to comply since they will keep accurate records for clearance purposes in order to avoid fines and penalties. Also, knowledge and education has a significant effect on performance. Thus the loan system should not only provide a clear and simple guideline on how to file returns but also enhance borrowers' education services to enable them to understand their rights and obligations. This way hence increasing loan performance levels.

Finally, borrowers perception on repayment period has a significant effect on loan performance, therefore the loan system should target individuals at all levels of income to seal loopholes that may encourage defaulting. Loan systems should also enhance surveillance and monitoring to ensure that all borrowers are brought into the loan net. Specifically, for those who take loans, mapping of their entire requirement should be done to ensure that they are captured into the system.

5.5 Suggestions for Further Research

This study focused on DTMFIs clientele in Kajiado County and therefore generalization cannot adequately extend to other DTMFIs clientele in kajiado count based on this fact among others, it's therefore recommended that broad study covering all DTMFIs countrywide be done to find out the relationship between financial literacy and loan performance amongst their customers. Secondly it's important to carry out similar study among large financial institutions such as banks to find out the relationship between financial literacy and loan performance amongst their customers.

5.6 Limitation of the study

The study was faced by various limitations. Due to resource the researcher conducted this research under constraints of finances and therefore collected data from DTMFIs clientele only in Kijiado County and can only be generalized for similar county. Some respondents were biased while giving information due to reasons such as privacy and busy schedule at their workplace while others were not willing to respond.

REFERENCES

- Allon, R. (2012). One Size Strategy for SMEs Does Not Fit All: *Entrepreneur-Magazine*
- Almenberg, J, & Save-Soderberg, J (2011). *Financial Literacy and Retirement Planning in Sweden*: CeRP Working Paper, No. 112, Turin (Italy).
- Amisi, S. (2012). *The effect of financial literacy on investment decision making by pension fund managers in Kenya*, Unpublished MBA Project, University of Nairobi
- Anthes, W. (2004). *Financial Literacy in America: A Perfect Storm, a Perfect Opportunity*. *Journal of Financial Service Professionals*, 8 (6): 49–56
- Athanasoglou (2005) .Firm specific determinant's of firms' financial performance.
- Atkinson, A. & Messy, F. (2005). *Assessing financial literacy in 12 countries an OECD Pilot Exercise*, Paris: OECD Financial Affairs Division.
- Atkinson, A., McKay, S., Collard, S. & Kempson, E. (2007). *Levels of Financial Capability in the UK*. *Public Money and Management*, 27(1), 29–36.
- Bandura, A. & Ross, S. A. (1961). *Transmission of aggression through the imitation of aggressive models*. *Journal of Abnormal and Social Psychology*, 63,575-582
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bin, K. (2009). *Financial Literacy and Investment Decisions of UAE Investors*. *The Journal of Risk Finance*, 10(5), 500-516
- Braunstein, S. & Carolyn, W. (2002). *Financial Literacy: An Overview of Practice, Research, and Policy*. *Federal Reserve Bulletin*, 88 (448): 445–457.
- Brown (2008). *Neighbors Matter: Causal Community Effects and Stock Market Participation*. *The Journal of Finance*, 63 (3), 1509-1531.
- Calvert, L., Campbell, J. & Sodini, P. (2005). *Assessing the Welfare Costs of Household Investment Mistakes*. Working Paper, Harvard University.

- Carton, R. (2004). *Measuring Organizational Performance: An exploratory study*. Athens, Georgia: University of Georgia
- Chen, H. & Ronald, V. (2002). *Gender Differences in Personal Financial Literacy among College Students*. *Financial Services Review*, 11: 289–307.
- Cohen (2008) *.Financial education .A Bridge between Branchless Banking and low –income clients’* .Washington, DC Microfinance Opportunities.
- Cole, S., Sampson, T. & Zia, B. (2008). *The Demand for Financial Services in Developing Countries*. Harvard Business School Working Paper, No. 09-117.
- Cooper, C.R., & Schindler, P.S. (2006). *Business research methods* (10 ed.). Boston: McGraw-Hill. Pauline’s Publications
- Crane, K. (2010). *Small firm bankruptcy*. *Journal of Small Business Management* (44)4, 493–512
- Danes, M. & Hira, K. (2007). *Money Management Knowledge of College Students*. *The Journal of Student Financial Aid*, 17(1), 4-16.
- Evans, J. (2008). *Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition*. *Annual Review of Psychology*, 59: 255-278.
- Falicov, C. (2001). *The Cultural Meanings of Money: The Case of Latinos and Anglo-Americans*, *American Behavioral Scientist*, 45 (2), 313-328.
- Fessler, P., Schurz, M., Wagner, K. & Weber, B. (2007). *Financial Capability of Austrian Households*. *Monetary Policy & the Economy: Quarterly Review of Economic Policy*, 50(1):1-5
- Gallery, N., Newton, C., & Palm, C. (2011). *Framework for Assessing Financial Literacy & Superannuation Investment Choice Decisions*, *Australasian Accounting Business and Finance Journal*, 5(2), 3-22.

- Garman, L. & Grable, T. (1999). *Employer-sponsored education programs and incentives to improve employees' financial lifestyles*. *Employee Relations Today*, 63-72.
- Gatakaa, S. (2010). *The relationship between personal financial literacy and lending by commercial banks in Kenya*, Unpublished MBA Project, University of Nairobi
- Glaeser, E. & Scheinkman, J. (2003). *Non-Market Interactions*. *Advances in Economics and Econometrics*. Cambridge University Press Paper, Princeton University.
- Goel, V. & Dolan R. (2003). *Explaining Modulation of Reasoning by Belief*. *Cognition*, 87(1), 11-22.
- Government of Kenya. (2005). *Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction*. Sessional Paper No. 2 of 2005. Nairobi: Government Printer
- Gravetter, R. & Forzano, S. (2003). *Research Methods for Behavioural Sciences*, Belmont: Wardsworth.
- Greenspan, A. (2002). *Financial Literacy: A Tool for Economic Progress*: *The Futurist*, 36, (4), 37- 41.
- Guiso, L. & Jappelli, J. (2008). *Financial Literacy and Portfolio Diversification*. CSEF Working Paper, 212.
- Hilgert, M., Hogarth, J. & Beverley, S. (2003). *Household Financial Management: The Connection between Knowledge and Behavior*. *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System (U.S.), issue Jul, 309-322.
- Hogarth, J. & Hilgert, A. (2002). *Financial knowledge, experience and learning preferences: Preliminary results from a new survey on financial literacy*. *Consumer Interests Annual*, 48, 1-7.
- Idowu F. (2010). *Impact of Microfinance on Small and Medium-Sized Enterprises in Nigeria*

- Kim, J.N. & Garman, E.T. (2006). *Workplace Financial Education Improves Personal Financial Wellness*. *Financial Counseling and Planning*, 10(1), 79-88.
- Klapper, Lusard & panos (2013); *Financial Literacy and its consequences*; Evidence from Russia during Financial Crisis; *Journal of Banking and Finance*, 39, 3904-3923.
- Kothari, R. (2004). *Research Methodology: Methods and techniques*. New Delhi: Age publishers.
- Lusardi & Mitchell (2013).*The economic Importance of Financial Literacy: Theory and Evidence*: working paper 134/13, Centre for Research on pensions and welfare policies.
- Lusardi, A. & Mitchell, O. (2005). *Financial Literacy and Planning: Implications for Retirement Wellbeing*. DNB Working Paper, No 78, Amsterdam
- Lusardi, A. & Mitchell, O. (2005). *Financial Literacy and Planning: Implications for Retirement Wellbeing*. DNB Working Paper, No 78, Amsterdam. Nyamute, W. & Maina, M. (2011).
- Miles, D. (2004).*The UK Mortgage Market: Taking a Longer-Term View*. Working Paper, UK Treasury.
- Monk, R. (2000). *Why small businesses fail*, *CMA Management*, 74(6), 12-15.
- Moore, D. (2003). *Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes and Experiences of Listed firms*, Technical report 03-39, Social and Economic Sciences Research Center, Washington State University
- Mugenda, and Mugenda, A. (2003). *Research methods: Quantitative and qualitative approaches*. 2nd. Rev. Ed. Nairobi: Act press.
- Olima, B. (2013). *Effect of Financial Literacy On Personal Financial Management On Kenya Revenue Authority Employees In Nairobi*, Unpublished MBA Project, University of Nairobi,

APPENDIX I: QUESTIONNAIRE

The purpose of this survey is to analyze the relationship between financial performance and loan repayment on the DTMFI with the aim of formulating policies aimed at enhancing loan administration and collection. All responses/answers provided in this survey will only be used for academic purposes and will be kept confidential.

SECTION A: BACKGROUND INFORMATION OF THE RESPONDENTS

1. Gender: Male

Female

2. What is your age bracket?

AGE BRACKET	TICK APPROPRIATELY
20-30	
30-40	
40-50	
50-60	
Above 60	

3. What is your highest level of education?

Level of Education	Tick Appropriately
High School Certificate	
Certificate/Diploma	
Degree/Professional	
Masters	
PHD	

Other (Specify)

.....

SECTION B: BACKGROUND INFORMATION OF THE INSTITUTION.

1. What is the name of your MFI's name?

(Optional).....

2. How many customers do you have by May 2015?

.....

3. How long has your institution been in the business?

YEARS	TICK APPROPRIATELY
0-5	
6-10	
11-20	
OVER 21	

SECTION C: LOAN PERFORMANCE

Tick Appropriately.

Strongly disagree (1) Disagree (2)

Not Certain (3) Agree (4) Strongly agree (5)

	1	2	3	4	5
The business files its LOAN returns on time due to compliance customers					
The business receives the right amount of loans and interest there on time					

SECTION E: FINES AND PENALTIES Strongly disagree (1) Disagree (2) Not Certain Tick Appropriately. (3) Agree (4) Strongly agree (5)

	1	2	3	4	5
The penalty rates are very low and I can afford to pay the penalty compared to defaulting					
The enforcement is very weak					
I believe that the penalty is lower than my saving due to not complying.					

SECTION D: AGE

Tick Appropriately.

Very High (1) Low (2) fair (3)

High (4) Very High (5)

	1	2	3	4	5
How do you rate the effect of age for filing a loan return					
How do you rate the age bracket among defaulters					
Age bracket's among loan seeker?					

SECTION F: PERCEPTION OF BORROWERS REPAYMENT PERIOD

Strongly disagree (1) Disagree (2) Not Certain (3) Agree (4) Strongly agree (5)

Tick Appropriately.

	1	2	3	4	5
Since the supporting documents are not properly kept, I can manipulate the date of repayment.					
If detected not reporting on time, I believe that the authority is tolerant towards my offence and most probably it I will escape without any punishment.					
I believe the authority has limited capability to investigate all income reported to them so I have an opportunity not to report my loan obligation					
I believe that the probabilities of being detected by the authority for not declaring my loan returns are low					

Strongly disagree (1)
Disagree (2) Not Certain
(3) Agree (4) Strongly
agree (5)

SECTION G: FINANCIALY LITERACY

Tick Appropriately.

(3) Agree (4) Strongly
agree (5)

	1	2	3	4	5
I know how to Make returns received from all sources of MFI					
I know how to keep records/documents pertaining to loans for a period of seven years after receiving of the loan					
I understand that I should repay loan and interest due within the prescribed period from the date of issue of the Notice or within the stipulated period					
I know I should obtain a clearance certificate after repayment					
I know which income should be included or excluded in determining the total amount to pay					

APPENDIX II: LETTER OF INTRODUCTION

Geoffrey O.Ombongi

P.O. Box 30197,

Nairobi, Kenya.

Dear Sir/Madam,

REQUEST FOR RESEARCH ASSISTANCE

I am a postgraduate student at The University of Nairobi, pursuing a Master of Business Administration Finance option. I am undertaking a research project proposal in partial fulfillment of the Masters Degree on: The relationship between Financial Literacy and Loan Performance amongst customers of Deposit Taking Microfinance Institutions in Kajiado County. I am kindly inviting you to participate in this research study by completing the attached questionnaire as briefly and accurately as possible. In order to ensure that all information will remain confidential, please do not include your name anywhere on the research questionnaire. The data collected will be useful in providing information that will enable employees and the management of Deposit Taking Microfinance Institutions appreciate the relationship between financial literacy and loan performance amongst customers of deposit taking microfinance institutions in Kajiado County, Kenya.

Your assistance and cooperation will be highly appreciated.

Yours faithfully,

Geoffrey O. Ombongi

	LIST OF DEPOSIT TAKING MICROFINANCE IN KENYA
1	Rafiki Deposit Taking Microfinance
2	Kenya Women Finance Trust DTM Limited
3	SMEP Deposit Taking Microfinance Limited
4	Remu DTM Limited
5	Faulu Kenya DTM Limited
6	Century Deposit Taking Microfinance Limited
7	Uwezo Deposit Taking Microfinance Limited
8	SUMAC DTM Limited
9	U&I Deposit Taking Microfinance Limited