

**EFFECTS OF MICROFINANCE INNOVATIONS ON ACCESS TO  
FINANCE BY SMALL AND MEDIUM ENTERPRISES IN KENYA:  
A CASE OF MICROFINANCE INSTITUTIONS IN KENYA**

**BY**

**MBOYA DOUGHTY ATIENO**

**D61/62967/2011**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL  
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF  
THE DEGREE OF MASTERS IN BUSINESS ADMINISTRATION,  
UNIVERSITY OF NAIROBI**

**OCTOBER 2013**

## DECLARATION

I hereby declare that this research project is my own original work and has never been submitted to any other university or institution for any award.

Signed.....

Date.....

Name: Mboya Doughty Atieno

ADM No.: D61/62967/2011

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

Signed.....

Date.....

Name: Mr. Mirie Mwangi

## **ACKNOWLEDGEMENT**

Special thanks to my dear husband for his unreserved financial, emotional, and physical support.

To my project supervisor Mr Mirie; for his academic guidance, unconditional patience, support and always creating time out of his busy schedule to attend to my academic work through-out the research process.

To the staff members of all the DTMs in my study for their efforts in providing the necessary data and information required in the strenuous exercise of collecting data.

To all those who assisted in the success of this study, May God bless you all for the commendable work.

## **DEDICATION**

I dedicate this research work to my beloved husband and all those who have made this research project a success. Thank you for your time and support.

Above all, I thank the Almighty God for giving me the strength and patience that carried me through the whole research.

## **ABSTRACT**

This research project explores the effect of Microfinance innovations on access to finance by SMEs in Kenya. The study sought to establish the innovative products available for SMEs to access finance from MFIs and the relationship between microfinance innovations and access to finance by SMEs. A sample of 4 DTMs was surveyed out of the 9 DTMs registered by AMFI as per 2011 report. The data was collected from AMFI reports and the concerned DTM reports .Data was analysed using descriptive statistics and SPSS. The study found that Microfinance innovative products are positively correlated to access to finance by SMEs that is the analysis of the data confirmed that innovative loan products, saving products and location innovation have improved access to finance by SME. The study also found out that the 4 DTMs have introduced a wide range of innovations in the past 4years; these innovations include product innovation (savings and loans), marketing innovations, micro insurance and location innovation. One of the major problems of Small and Medium Enterprises is lack of start-up or operating capital. To ensure that access to finance to SMEs is improved Government and MFIs themselves should enhance the out-reach of microfinance through creating awareness of the products/ activities and operations to SMEs especially those in rural and semi-urban areas that are yet to appreciate the benefits that are available to them. More so, the expansion of MFIs through the establishment of rural branches is an imperative for increase access to MFIs services

## TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENT.....	iii
DEDICATION.....	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vi
LIST OF ABBREVIATIONS.....	ix
LIST OF TABLES.....	x
LIST OF FIGURES.....	xi
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of the study.....	1
1.1.1 Microfinance Innovation.....	2
1.1.2 Access to Finance.....	4
1.1.3 Relationship between MFI Innovation and Access to Finance.....	5
1.1.4 Micro-Finance Institutions.....	7
1.2 Research Problem.....	8
1.3 Research Objectives.....	11
1.4 Value of the Study.....	11
CHAPTER TWO.....	13
LITERATURE REVIEW.....	13
2.1 Introduction.....	13
2.2 Theoretical Review.....	13
2.2.1 Joint Liability Theory.....	13
2.2.2 Information Asymmetry, Adverse Selection and Moral Hazard Theory ...	14

2.3 Empirical Studies.....	17
2.4 Summary of Literature Review.....	24
CHAPTER THREE.....	25
RESEARCH METHODOLOGY.....	25
3.1 Introduction.....	25
3.2 Research Design.....	25
3.3 Target Population.....	25
3.4 Sample Design.....	25
3.5 Data Collection.....	26
3.6 Data Analysis.....	26
CHAPTER FOUR.....	28
DATA ANALYSIS, RESULTS AND DISCUSSIONS.....	28
4.1 Introduction.....	28
4.2 Descriptive Statistics.....	28
4.3: Regression Analysis Model.....	34
4.4 Discussions.....	40
CHAPTER FIVE.....	41
SUMMARY, CONCLUSSION AND RECOMMENDATIONS.....	41
5.1 Introduction.....	41
5.2 Summary.....	41
5.3 Conclusion and Recommendations.....	43
5.4 Limitations.....	44
5.5 Suggestions for further research.....	44
REFERENCES.....	45
APPENDIX I: Y's and X's Values for the sampled DTMs for the 4 years.....	49

APPENDIX II: DEPOSIT TAKING MICROFINANCES.....50



## **LIST OF ABBREVIATIONS**

AMFI	– Association of Microfinance Institution
ATM	– Automated Teller Machine
CBK	– Central Bank of Kenya
CGAP	– Consultative Group to Assist the Poorest
DTM	– Deposit Taking Micro-Finance
GDP	– Gross Domestic Products
IFC	– International Finance Corporation
INAFI	–International Network for Microfinance Institutions
IT	– Information Technology
IVR	– Interactive Voice Response
KWFT	– Kenya Women Finance Trust
LPG	– Liquefied Petroleum Gas
MFI	– Micro-Finance Institution
MRFC	– Malawi Rural Finance Company
MSMEs	– Micro Small and Medium Enterprises
PDA	– Personal Digital Assistants
R&D	– Research and Development
SMEP	– Small and Micro-Enterprise Programme
SMEs	– Small and Medium Enterprises
SPSS	– Statistical Package for Social Scientists

## **LIST OF TABLES**

Table 1: Descriptive Statistics of the DTMs.....	29
Table 2: Regression analysis model summary.....	35
Table 3: Test of Homogeneity of Variances.....	35
Table 4: Coefficients <sup>a</sup> .....	36
Table 5: Multiple regression observation and analysis conclusion.....	37
Table 6: Correlation Summary.....	38
Table 7: ANOVA on effect of MFI innovation on Access to finance.....	38
Table 8: Regression Coefficients results.....	39

## LIST OF FIGURES

Figure 1: Active borrowers .....	28
Figure 2: Loan products introduced .....	30
Figure 3: Accumulated growth of number of active borrowers .....	31
Figure 4: Number of branches opened.....	32
Figure 5: Number of saving products introduced.....	33
Figure 6: loan products introduced.....	34

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

The growing rate of unemployment in Africa poses a challenge not only to individuals but also to the African Governments. At the individual level, the establishment of business enterprises particularly SMEs has been a resort to gainful employment. Several problems have presented limitations to most of the African entrepreneurs so much such that not only is the growth of their enterprises affected but survival threatened. Among these numerous limitations are the problems of readily access to capital, lack of managerial acumen, poor or absence of infrastructural facilities—especially power to support smooth, effective and efficient operations. While the income accruing to the entrepreneurs and the expansion of their businesses is affected, a similar effect is exerted on the economy as a whole. The growth and development of the country is slowed (Oni, 2012).

About 90 percent of the people in developing countries lack access to financial services from institutions, either for credit or savings. If the people in developing countries have a limited capacity to invest in capital, productivity is restricted, incomes are inhibited, domestic savings remain low, and again, any increase in productivity is prevented. A lack of access to financial institutions also hinders the ability for entrepreneurs in developing countries to engage in new business ventures and inhibiting economic growth. Innovative MFIs serves as a means to empower the poor and provides a valuable tool to assist the economic development process (Vincent, 2004).

Majority of the previous studies have concentrated on the growth of the MFI institutions and SMEs. This has resulted in little or no research on the relationship between MFI innovations and improved access to finance by SMEs within the industry. It is against this background that this study was conducted to find out the effects of Microfinance innovations on access to finance by SMEs in Kenya. The researcher highlights deposit taking MFIs as a model for the study.

### **1.1.1 Microfinance Innovation**

Microfinance is the provision of financial services to low-income clients, including consumers and the self-employed, who traditionally lack access to banking and related services. Microcredit, or microfinance is banking the unbankables, bringing credit, savings and other essential financial services within the reach of millions of people who are too poor to be served by regular banks, in most cases because they are unable to offer sufficient collateral. Microfinance fits best to those with entrepreneurial capability and possibility. Ultimately the goal of microfinance is to give low income people an opportunity to become self-sufficient by providing a means of saving money, borrowing money and insurance (Mohan, 2011).

Microfinance is an important social innovation. It is playing a significant role in promoting social and economic development in many deprived areas and among many socially excluded groups. Microfinance services such as credit, savings and remittances allow the clients to improve their liquidity management. MFIs use innovative methods such as: group lending and liability, pre-loan savings requirements, gradually increasing loan sizes, implicit guarantees of ready access to future loans if present loans are repaid fully and promptly and micro-insurance (Nugroho & Miles, 2009).

Technological innovation especially involving new Information Technology (IT) can be, and has been, exploited to improve the efficiency, scale and quality of microfinance services. Six technologies are catalogued by the Microfinance Gateway (CGAP) as having been adopted by MFIs these includes; Automated Teller Machines (ATMs), Interactive Voice Response (IVR) Technology, Smart Cards, Personal Digital Assistants (PDAs), Credit Scoring and Biometrics Technology (Nugroho & Miles, 2009).

Microfinance provides women with the financial backing they need to start business ventures and actively participate in economy. It gives them confidence, improve their status and makes them more active in decisionmaking, thus encouraging gender equality. According to CGAP, long-standing MFIs even report a decline in violence towards women since the inception of microfinance (Raya, 2010). Most of the Microfinance institution and agencies all over the world focuses on women in developing countries. Observations and experience shows that women are small credit risk, repaying their loans and tend more often to benefit the family. In another aspect it's also viewed as a method giving the woman more status in a social economic way and changing the current conservative relationship between gender and class when women are able to provide income to the household (Mohan, 2011).

To adequately support small enterprises, MFIs will need to better understand their unique needs and to tailor financial services and build appropriate infrastructure to meet them. Successfully serving small enterprises is a process, not a one-time event, so careful planning is crucial. This will require a commitment from top management to create a

client centric approach, hire dedicated and knowledgeable staff, and invest in appropriate technologies (Glisovic & Meritxell, 2012).

### **1.1.2 Access to Finance**

Small and Medium Enterprises (SMEs) are commonly believed to have very limited access to deposits, credit facilities and other financial support services provided by formal financial institutions. This is because these SMEs cannot provide the necessary collateral security demanded by these formal institutions and also, the banks find it difficult to recover the high cost involved in dealing with small firms. In addition to this, the associated risks involved in lending to MSEs make it unattractive to the banks to deal with micro and small enterprises (World Bank, 2004). According to Bharti and Shylendra (2011) access to capital is critical in the promotion of entrepreneurship development particularly microenterprises. Similarly, Muktar (2009) stated credit as a precondition to the growth of enterprises.

Access to finance is necessary to create an economic environment that enables firms to grow and prosper. SMEs in developing countries, however, face significant barriers to finance. Financial constraints are higher in developing countries in general, but SMEs are particularly constrained by gaps in the financial system such as high administrative costs, high collateral requirements and lack of experience within financial intermediaries. Increased access to finance for SMEs can improve economic conditions in developing countries by fostering innovation, macro-economic resilience, and GDP growth (Beck & Demirgiic-Kunt, 2008).

The Investment Climate Surveys of the World Bank show that access to finance improves firm performance. It not only facilitates market entry, growth of companies and risk reduction, but also promotes innovation and entrepreneurial activity. Furthermore, firms with greater access to capital are more able to exploit growth and investment opportunities. In other words, aggregate economic performance will be improved by increasing the access to capital (Beck & Demirgiic-Kunt, 2008).

### **1.1.3 Relationship between MFI Innovation and Access to Finance**

Microfinance is a product innovation in the sense that it introduces services which are new and enhance provision of financial assistance to small clients considered 'unbankable' by other traditional financiers. Additionally, new methods are developed within microfinance schemes in order to ensure the repayment of the loan where no collaterals are guaranteed. Microfinance institutions (MFIs) also develop new techniques and methods (processes) to ensure that the services both reach the targeted clients and yield profits. They innovate in terms of rules and procedures to ensure clients' repayment. This includes training policies and human resource management practices which aim at modifying financial facilities and structuring the working units to provide services. The impact of the new product can be major, especially in the developing world, where many microfinance schemes and services bring new products to markets, occasioning strategic changes in financial services (so having more of the characteristics of radical innovation), and also impacting upon clients by pressing them to undertake new business processes in order to achieve creditworthiness (Nugroho & Miles, 2009).

Small and medium enterprises (SMEs) cannot provide the necessary collateral demanded by formal institutions and also, the banks find it difficult to recover the high cost involved



in dealing with small firms. Additionally, the associated risks involved in lending to SMEs make it unattractive for the banks to deal with them (World Bank, 2004). Therefore, many microfinance institutions have emerged to address this market failure and have become the main source of funding for micro enterprises in many developing countries. However, for MFIs to fulfil their dual mission, it will depend largely on their capacity for innovation. As traditional banks are venturing into microfinance services provision, as number of players in the microfinance industry is increasing, as there are a myriad of challenges confronting the microfinance industry, and as there is increasing complexity in demand for microfinance services among clients, the role of innovation is very crucial, particularly in developing countries.

Filpo (2006) found the impediments to the success of MFIs in developing countries to relate to scalability, sustainability, outreach and the impact of the various MFI initiatives; and indicated that these impediments can be overcome through the adoption of innovative strategies to maximize outreach and sustainability. Innovation provides easy access to accurate activities such as disbursements, repayments, deposits, withdrawals, and money transfer and thus making their completion faster and better controlled with minimal opportunity for errors. Innovative activities are not only geared towards lowering transaction cost and extending the reach of microfinance institutions but also geared towards enhancing customer convenience (Hans, 2009).

The microfinance industry in most African countries remains largely underdeveloped (Gupta, 2008). Therefore technological innovations, product refinements and ongoing efforts to strengthen the capacity of African MFIs are needed to reduce costs, increase outreach and boost overall profitability (Laffourcade et al., 2005). The OECD's Oslo

Manual (2005) identified four types of innovation: product innovation, process innovation, marketing innovation, and organizational (location) innovation.

#### **1.1.4 Micro-Finance Institutions**

A microfinance institution (MFI) is an organization that provides microfinance services. MFIs range from small non-profit organizations to large commercial banks. Historical context can help explain how specialized MFIs developed over the last few decades. Between the 1950s and 1970s, governments and donors focused on providing subsidized agricultural credit to small and marginal farmers, in hopes of raising productivity and incomes. During the 1980s, micro-enterprise credit concentrated on providing loans to poor women to invest in tiny businesses, enabling them to accumulate assets and raise household income and welfare. These experiments resulted in the emergence of nongovernmental organizations (NGOs) that provided financial services for the poor. In the 1990s, many of these institutions transformed themselves into formal financial institutions in order to access and on-lend client savings, thus enhancing their outreach (Quaye ,2011)

Microfinance institutions (MFIs) play a vital role in the economic development of many Countries. They offer loans and/or technical assistance in business development to low-income community in developing countries. They have a variety of products including micro loans, savings and other deposit products, remittances and transfers, developing payment services, insurance, and any other financial product or service that a commercial bank does not offer to low-income clients in the banking system . Since its birth in the 1970s, microfinance has endeavored to develop sustainable enterprises and its innovations have been replicated from country to country, each time with renewed

enthusiasm and innovation leading to international best practices that have benefited and guided the practice of microfinance-credit (Nugroho & Miles, 2009).

Given the ongoing developments in microfinance, there is considerable interest for many MFIs in Africa to keep pace with the changing landscape in the industry. However, the microfinance industry in most African countries remains largely underdeveloped. African MFIs have continuously faced many challenges including lack of proper regulatory environment and lack of funds. Despite the series of financial sector reforms that the African countries have undertaken since the 1980s, financial systems still exhibit substantial degrees of inefficiencies in their savings mobilization and allocation of resources into productive activities (Gupta, 2008).

Operating and financial costs are high, and on average, revenues remain lower than in other global regions. Efficiency in terms of cost per borrower is lowest for African MFIs. It is therefore important to find cost-effective ways of improving standards while at the same time minimizing restrictions and encouraging innovation. Technological innovations, product refinements, and ongoing efforts to strengthen the capacity of African MFIs are needed to reduce costs, increase outreach, and boost overall profitability consequently; the MFIs should develop viable financial products relevant to the target markets (Lafourcade, et al, 2005).

## **1.2 Research Problem**

Innovation in the institutional domain and the expansion of microfinance institutions rely on public intervention and financial support. The state and donor transfers such as international NGOs subsidizes the costs of most microfinance institutions reaching a

greater number of clients below the poverty line. It is noted that the management of loans for productive purposes with the aim to raise income and assets is effectively done by those just below or just above the poverty line. An increase in financial services will have a positive outcome in the welfare of the poorest but not necessarily to lift them from poverty because of the lack of access to market, technology, and other factors that raise production (Beck & Demirgiic-Kunt, 2008).

Accessing credit is considered to be an important factor in increasing the development of SMEs. It is thought that credit augment income levels, increases employment and thereby alleviate poverty. It is believed that access to credit enables poor people to overcome their liquidity constraints and undertake some investments such as the improvement of farm technology inputs thereby leading to an increase in agricultural production. The main objective of microcredit is to improve the welfare of the poor as a result of better access to small loans that are not offered by the formal financial institutions. It is argued that insufficient access to credit by the poor just below or just above the poverty line may have negative consequences for SMEs and overall welfare. Access to credit further increases SME's risk-bearing abilities; improve risk-copying strategies and enables consumption smoothing overtime. With these arguments, microfinance is assumed to improve the welfare of the poor. It is argued that MFIs that are financially sustainable with high outreach have a greater livelihood and also have a positive impact on SME development because they guarantee sustainable access to credit by the poor (Beck & Demirgiic-Kunt, 2008).

Kojo (2013), the study found ample evidence to support the fact that MFIs in the three northern regions of Ghana had introduced a wide range of innovations in the past three

years. These innovations had been employed at varying degrees include product innovation (savings, and loan), marketing innovations, micro-insurance, location innovation, and R&D innovation. The underserved market is huge and for it to be exploited, it will require committed efforts from the management of MFIs to develop unique micro-insurance products to meet the needs of the poor and marginalized. Innovations come with risks. MFIs are advised to perform risk assessment before rolling out innovations. This will help them develop effective mechanisms to contain potential risks. This is an area where MFIs can exploit to increase their payoffs from investments in innovations. Quaye (2011) also indicated that MFIs have had a positive effect on the growth of SMEs. Some of the critical contributions of MFIs include; greater access to credit, savings enhancement and provision of business, financial and managerial training.

Lack of access to financial services is one of the main constraints facing SMEs in Kenya. A number of factors have been identified as explaining the problem of access to financial services by small-scale borrowers like MSEs. Conceptually, the nature of credit markets, which are segmented and incomplete, is one explanation for the limited access to financial services. Due to the risky and inter-temporal nature of credit trade, the information requirements and enforcement problems for lenders are high, resulting in agency costs, which affect the outcome of credit programmes towards SMEs. As a result, firms may prefer funds from external sources but fail to apply due to the high costs of loan application. While financial market involvement by firms may be limited, smaller firms, like the women owned enterprises, have much less involvement than the larger ones (Atieno, 2012).

Innovation make it possible for microfinance institutions (MFIs) to reach a greater number of poor households on a sustainable basis and on the other hand access to finance allows economic agents to make investments that are larger than their available capital. However, there is general agreement among researchers and practitioners that women-owned SMEs are yet to benefit from microfinance programs in most countries partly because most MFIs do not offer products and services that are attractive to this category (Llanto & Fukui, 2003). Past studies have dwell so much on the impact of MFIs on growth, access to finance, linkages and creation of employment by women-owned SMEs but few studies have been conducted on innovations in MFIs. This study therefore, seeks to explore the effects of MFI innovations on access to finance by women-owned SMEs.

### **1.3 Research Objectives**

The study will seek to;

1. Establish the innovative products available for SMEs to access finance from MFIs
2. Establish the relationship between microfinance innovations and access to finance by SMEs.

### **1.4 Value of the Study**

This study will be of great importance to donor agencies, MFIs, Government agencies and prospective entrepreneurs. MFIs will improve their understanding on the role of innovation in access to finance. In addition potential entrepreneurs will directly benefit from this study as they will be informed on the innovative products offered by MFIs that makes it easier for them access finance as compared to the formal financial institutions. Donor agencies will have an insight understanding on the innovative products to fund to change the status of various SMEs. Similarly it will also inspire other researchers and scholars to carry-out further research in the same field.

Microfinance has been prioritized for decades as an instrument for fighting poverty. Microfinance is seen as very crucial to attaining the Millennium Development Goals (Littlefield, Murdoch, & Hashami, 2003). Supporting the creation of access to formal financial services for low income households holds the promise of improving the living conditions of poor families and fostering economic development (Terberger, 2003). Increasing the access of the poor to sustainable financial services is an important part of the World Bank Africa Region's strategy for supporting the Millennium Development Goals for poverty reduction. Convenient and affordable instruments for savings, credit, insurance, and payment transfers are essential both to cope with the economic fluctuations and risks that make the poor especially vulnerable, and to take advantage of opportunities to acquire productive assets and skills that can generate increased income (Steel and Andah, 2003).

In developing countries and particularly in deprived regions, microfinance is relevant to stimulating entrepreneurship (Nugroho and Miles, 2009). Small and medium enterprises (SMEs) cannot provide the necessary collateral demanded by formal institutions and also, the banks find it difficult to recover the high cost involved in dealing with small firms. Additionally, the associated risks involved in lending to SMEs make it unattractive for the banks to deal with them (World Bank, 2004). Therefore, many microfinance institutions have emerged to address this market failure and have become the main source of funding for micro enterprises in many developing countries

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the literature from previous studies and the works of other scholars. The specific areas covered here are Theoretical Review and Empirical Reviews.

#### **2.2 Theoretical Review**

##### **2.2.1 Joint Liability Theory**

Microfinance works on joint liability model. Traditional theories of credit lending say that rural credit markets are imperfectly competitive and acquiring information about borrowers type that is who is risky and who is safe is not costless. This market imperfection leads to high interest rate and drives out safe borrower from the credit market. In economic literature this problem is considered as adverse selection problem. Joint liability model try to solve the problem of adverse selection through group lending (Maurya, 2011). Under the joint liability lending scheme, borrowers will form a group and the loan will be distributed to individuals under this scheme. Members in the same group are jointly liable for their partners' repayment. If a member fails to repay, the other group members are considered as defaulting and will lose access to future loans. By taking advantage of lending in bulk and an insurance effect where borrowers act as mutual guarantors, a joint liability lending scheme can potentially improve the welfare of the society (Ghatak, 1999).

The individual versus joint liability scheme depends on the level of development of the society. In the poor society the individual would not be eligible for the individual loan scheme as due to the absence of the credit rating and hence would be able access only



through the group credit. Here in the group credit it is the joint liability which is undertaken as the collateral for the loan provision where as in the developed society, an individual would be able to access the higher loan amounts only in individual liability scheme. As the group credit would not be able to meet the requirements like progressive increment in the loan amounts. Joint liability has increased outreach, empowerment, lowering costs of operation.

According to Maurya (2011), joint liability contract leads to positive assortative matching within groups. Once the matching process takes place, the lender is able to distinguish between who is safe and who is a risky group by using the contract variables  $r$  and  $c$ . we try to show that if risky type pair with safe type the gain from this pairing will be smaller than the loss, if safe type pairing with risky type. The reason behind this argument is that the penalty imposed by lender is high for risky borrower and low for safe borrower because the probability that project will succeeds is high for safe borrower and low for risky borrower.

### **2.2.2 Information Asymmetry, Adverse Selection and Moral Hazard**

#### **Theory**

The primary reason why people give their money to financial intermediaries instead of lending or investing the money directly is because of the risk that is present from the information asymmetry between the provider of funds and the receiver of those funds. Likewise, a borrower knows more about his financial condition and his future prospects than the lender. How can the lender be sure that the borrower will not simply disappear with the funds? Or that the borrower will take enormous risks. The two types of risks that are present when there is information asymmetry are adverse selection, which is a risk

exposure that exists before the money is lent or invested and moral hazard, which is a risk after the financial transaction that is the risk that the receiver of funds will not use the money as was intended or they may take unnecessary risks or not be vigilant in reducing risk. The risks of adverse selection and moral hazard makes direct financing expensive, especially for small firms, since people are unwilling to lend or invest money in unknown entities (Spaulding, 2013).

Imperfect information causes at least four problems in credit markets, namely, adverse selection, moral hazard, lack of insurance and lack of enforcement. It is now common knowledge that, moral hazard, coupled with the lack of collateral by the poor is the key reason why credit markets fail for them. The problem of moral hazard may arise when individuals engage in risk sharing under conditions such that their privately taken actions affect the probability distribution of the outcome. It occurs in a principal-agent relationship when actions taken by an agent are not pareto-optimal (Holmstrom, 1979).

The role of peer selection in mitigating adverse selection and hence moral hazard is discussed by Ghatak (1999). Ghatak (1999) argues that despite information asymmetry, joint liability lending allows for pareto superior equilibrium in credit markets if group formation is conducted appropriately. Ghatak (1999) shows how groups formed through self selection will result into members with homogenous quality. Ghatak (1999) shows that through the assortative matching process, groups end up with less risk borrowers, directly reducing moral hazard, which leads to a lower equilibrium interest rate leading to a pareto superior outcome relative to individual lending.

Significance of peer monitoring in improving repayments in group credit is highlighted by a number of authors. Stiglitz (1990), for example, observes that the major problem

facing MFIs is ensuring that borrowers exercise prudence in the use of the funds so that the likelihood of repayments is enhanced. Stiglitz (1990) notes that a partial solution to this problem is peer monitoring: giving neighbours or group members the responsibility to monitor each other. The incentive for peer monitoring comes from the fact that peers are supposed to pay loans for any defaulting group members. Studying the incentive rationale for the use of group lending as a method of financing liquidity-constrained entrepreneurs, Che (2002) observes that the joint liability lowers the liquidity risk of default but creates a free-riding problem. Che points out that in the static setting, the free-riding problem dominates the liquidity risk effect, thus making group lending unattractive. However, when the projects are repeated over time, the joint liability feature provides the group members with a credible means of exercising peer monitoring and sanctioning, which can make the group lending attractive, relative to individual lending.

For example in Malawi moral hazard is common occurrence among credit groups. Diagne (1998) note that peer monitoring rarely occurs in credit groups from Malawi and that when it occurs it does not lead to improvements in repayment because the main reason for default in the Malawi Rural Finance Company (MRFC) credit groups is the unwillingness to repay (moral hazard) and not the inability to repay. The unwillingness to repay was found to be the first cause of default among the MRFC credit groups. It accounted for 25 percent of all defaults in MRFC credit groups. Results indicate that in Malawi, despite the high potential of joint liability lending in mitigating moral hazard, the mechanism is still prone to moral hazard. About 40 percent of the credit groups reported that they experienced either a misuse of funds or a mismanagement of an investment by some of their group members. Our analysis further shows that the likelihood of occurrence of moral hazard is lower in groups that were endogenously

formed through peer selection. Peer monitoring through rules that encourage joint enterprise ownership reduces the incidence of moral hazard. The degree of pre-existing social ties captured by the number of villages from which group members come as well as the existence of peer pressure, particularly, before the due date of the loan reduce the likelihood of the incidence of moral hazard. These findings offer support to theoretical propositions by Ghatak & Guinnane (1999) and Diagne (1998).

### **2.3 Empirical Studies**

Quaye (2011) in his study comprising of 433 SMEs in Kumasi Metropolis in Ghana on effect of microfinance institutions on the growth of Small and Medium Scale Enterprises revealed that MFIs have a positive effect on the growth of SMEs. The growth is evident notwithstanding the inherent challenges facing SMEs. The researcher applied purposive sampling in selecting 8 Microfinance Institutions. The methodology used in data analysis was Statistical Package for Social Scientistis (SPSS) and Microsoft Excel. It was also noted that access to credit which is a major challenge in the SME sectors has reduced to Large extent through the operation of MFIs. According to the author, Microfinace has also contributed to the growth of SMEs through the provision of non-financial services such as business, financial and managerial training programs.

Another notable study was by Atsede et al (2012) whose objective was to identify the challenges the SMEs sector in Tanzania is facing in accessing microfinance and provide some recommendations on how to overcome those challenges. A survey research methodology was adopted utilizing primary and secondary data from a purposively selected sample of 120 SME operators. Data was collected using questionnaires and interviews which were analyzed using SPSS Statistics 17.0. The evidence gathered showed that the formal financial sector had failed to adequately extend microfinance

facilities to SMEs due to high transaction costs, lack of collaterals, inadequate skills in developing and managing bankable business plan and lack necessary expertise in developing financial products suited to SMEs. The study concluded that where default-risk is perceived to be high, micro insurance must be taken by applicants as collateral .It further affirmed the urgent need for capacity building of the supply side of the microfinance equation to enhance their experience in SME micro financing and develop attractive and affordable microfinance products. The researcher recommended initiation of intervention policies, which would uphold sustainability of SMEs and streamline accessibility to microfinance.

The study on the impact of Microfinance on Small and Medium-sized Enterprises in Nigeria by Idowu (2011) whose objective was to assess the impact of Microfinance on Small and Medium Enterprises. The study pointed out that significant number of SMEs benefited from Microfinance Institutions loan products even though only a few of them were capable enough to secure the required amount needed due to limited security needed. The researcher used simple random technique in selecting 100 SMEs that constituted the sample size of the research. The researcher further emphasized on the importance of government involvement in supporting the MFI sector by drafting friendly policies and providing infrastructure that supplements the MFI's outreach programs. (Mohan, 2011)

In Uganda Akisimire (2010) researched on the contribution of Microfinance credit terms on performance of SMEs in Uganda. The purpose of the research was to establish the relationship between microfinance credit terms and performance of SMEs in Uganda. According to him there has been improved access to credit by SMEs overtime. However

SMEs have continued to suffer financial challenges due to the stringent credit terms which includes interest rates, collateral securities and loan repayment schedules among others which seems to frustrate businesses financially. The study covered 5863 registered and licensed SMEs in Mbarara Municipality. Through simple random sampling the researcher adopted 374 SMEs for this study. From the descriptive statistics 61% of the respondents were women-owned SMEs as compared to 39% of men-owned SMEs and this implied that most SMEs are owned and managed by females.

The results revealed that the credit terms from the MFIs to SMEs were unfavourable. Specifically, SMEs were not satisfied with the maximum loan amounts, flexibility in collection procedures, favourable repayment schedules, low interest rates as well as adequacy of the information provided in relation to the loans. It was found out that the maximum loan amounts were not adequate enough for the borrowers to meet their due financial needs, that MFIs are strict with their collection procedures and that the interest rates are still high. What has to be considered also is that whereas these SMEs are driven by the credit terms as the basis for choosing the MFIs, it is important to consider the reliability and ethical practices. This is because while on the surface it may appear to be providing favourable credit terms, there may be other indirect costs that may never be in the knowhow abilities of the SME owners.

Kojo (2013) explored innovations in microfinance institutions in northern Ghana. The objective of the study was to explore various innovations offered by microfinance institutions operating in three northern regions of Ghana. Data were collected in 2012. The microfinance institutions considered were rural and community banks, cooperative credit unions, and loans and savings companies. From the seventy (70) questionnaires that were distributed to microfinance institutions across the regions, 50 questionnaires were retrieved, constituting

71%. However, nine institutions responded partially to the questionnaires, hence restricting the use of their data for analysis. Therefore the study was based on the analysis of data of 41 microfinance institutions from 13 administrative districts in the study area.

Microfinance Institutions in the three northern regions introduced a wide range of innovations in the past three years. These innovations that have been employed at varying degrees include product innovation (savings, and loan), marketing innovations, micro-insurance, location innovation, and R&D innovation. The underserved market is huge and for it to be exploited, it will require committed efforts from the management of MFIs to develop unique micro-insurance products to meet the needs of the poor and marginalized. Innovations come with risks. MFIs are advised to perform risk assessment before rolling out innovations. This will help them develop effective mechanisms to contain potential risks (Kojo, 2013).

Wang (2013) studied on the impact of microfinance on the development of small and medium enterprises (SMEs). The author used survey data collected from 323 SMEs in Taizhou, Zhejiang, the largest home of SMEs in China. The researcher employed statistical regression to examine and determine SME development in terms of revenue and net profit growth. The statistical model used was multiple linear regression model. The researcher utilized results from questionnaire surveyed in Taizhou, Zhejiang in China, which was conducted over a period of three months (from January to March 2013).

The study showed that microfinance plays a crucial role in the revenue and profit growth of SMEs. It also revealed that the SMEs with higher financial risk and lower level of productivity are more likely to seek microfinance. From the research, it was clear that the SMEs that participated in micro financing had better performance in terms of higher net

profit and revenue growth. It was also evident that firm characteristics including product innovation efforts and managerial and entrepreneurial attitudes are the keys that determine the likelihood of receiving micro financing (Wang, 2013).

Atieno (2012) in her paper titled “gender,institutions, access to finance and the development of SMEs in Kenya” illustrated the importance of institutional networks among women owned SMEs with regards to enterprise performance. The research points out that SME sector is a vibrant sector providing employment both directly to those involved in it, and indirectly through the creation of other enterprises, which provide them with support services. It is a major employer of the female labour force in the country. Most of such support services are also dominated by women. Addressing the problems that impede the development of SMEs is necessary to ensure the sustainability of the sector. Given the nature of their activity, SMEs may be increasing in numbers, but not improving in performance. Under such circumstances, they are also likely to be vulnerable to shocks like economic crisis, which further affect their potential for employment generation.

From the results in this research, supporting institutions like associations that enable women in the SMEs to overcome some of their constraints is important. Linkages among the enterprises themselves and between them and financial institutions enable them access financial services. Such financial services either contribute to business development directly by injecting external financial resources to the enterprises or by addressing social problems that may affect their financial stability and therefore performance. The results from her study have shown that although limited, the small scale enterprises have different forms of networks among themselves and linkages with



financial institutions. Some of these linkages have advantages, which are reflected in the firm's performance. One policy recommendation that can be drawn here is that there is need for the government to strengthen the institutional networks among SMEs, which enable them access resources as a way of overcoming some of their constraints (Atieno, 2012).

A case study done by Kiraka, Kobia, & Katwalo (2013) on Women Enterprise Fund also affirmed the importance of innovation on the growth of Micro, Small and Medium-sized Enterprises in Kenya. The researchers targetted on women-owned SMEs who had benefitted from Women Enterprise Fund to evaluate their performance after acquiring funds from the Fund. The study was conducted in 4 purposively selected counties out of 47 counties in Kenya and within the counties 14 constituencies were selected. The methodology used by the researcher to analyze the quantitative data was SPSS. The findings reflected positive growth among women-owned businesses in terms of total business worth, turnover, gross profit and number of employees. The most common form of innovation was found in change or addition of new products in the post loan period. Innovations in terms of services, markets and sources of raw materials were however less common among women-owned enterprises.

The study by Marjory et al.(2013) on effect of microfinance on performance of Women-owned Enterprises in Kisumu City in Kenya confirmed the contribution of MFIs in SMEs growth. The objective of the study was to determine the effect of Microfinancing on the performance of Women-owned Enterprises in Kisumu City. The study population comprised of 3000 registered Women businesses and a sample of 341 was drawn using clustering, simple random and purposive sampling approaches. Quantitative data was

analyzed by use of descriptive survey designed and inferential statistics .i.e. Chi-square to test the adequacy of the services offered by the MFIs. The result indicated that Microfinancing in sufficient quantities would have greater effect on profitability, productivity and growth and expansion of Women-owned Enterprises.

Mbogo and Ashika (2012) investigated the factors that influence product innovation in microfinance institutions, including the legal environment, competitive pressure and organizational factors such as leverage, liquidity and risk management challenges, distribution and human resource challenges. Data was collected from 38 MFIs registered with the Association of Microfinance Institutions (AMFI) in Nairobi, Kenya. Analysis of the data confirmed that legal environment, competitive pressure and liquidity and risk management challenges had the greatest importance in influencing MFI innovation. Linear regression analysis was used to estimate the coefficients of a linear equation, the Independent variables that best predict the value of the dependent variable. Legal Environment, Competitive Pressure, Leverage, Liquidity Management, Risk Management Distribution Challenges and Human Resource Challenges and the Dependent variable MFI Innovation.

Results from findings of this paper established that there is a positive correlation between legal environment, liquidity management and human resources for MFIs and product innovation. The research confirms the relevance of a legal environment, liquidity management and human resources for MFIs product innovation. It further shows that competitive pressure, risk management, distribution channels and lack of adequate finances negatively affect the MFIs product innovation processes (Mbogo & Ashika, 2012).

## **2.4 Summary of Literature Review**

The studies done in the past have concentrated so much on the relationship between MFIs and SMEs in regard to growth, creation of employment, linkages and poverty eradication. Little has been done on the link between innovation and access to finance in Kenya despite it being one of the key issues to economic and/or business growth. Mbogo and Ashika (2012) for instance, in their study on the factors influencing product innovation in Microfinance Institutions in Kenya only sought the factors that influence product innovation in microfinance institutions but not the resultant effects of these innovations on access to finance. It is on this premise that the researcher has chosen to explore the effect of Microfinance innovation on access to finance by SMEs.

While microfinance is widely celebrated as a possible solution to the financing problems of smaller firms and micro businesses, there is remarkably little examination of the connection between microfinance and product innovation (Nugroho & Miles, 2009). To ensure that MFIs enhance participation in SMEs, sustain the growth and maximum contribution to economic growth and development of the nation, Government and MFIs themselves should enhance the out-reach of microfinance through creating awareness of the activities and operations to SMEs especially those in rural and semi-urban areas that are yet to appreciate the benefits of the scheme. Regular campaigns at the local government and ward levels will help to achieve this effectively. More so, the expansion of MFIs through the establishment of rural branches is an imperative for increase access to MFIs services (Oni, 2012).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter articulates criteria for determining the appropriate methodology to be used by the researcher to unearth answers to research questions of the study. The section describes the research design adopted, procedures to be conducted, methods of collecting data and the method of analysing the data collected.

#### **3.2 Research Design**

The study was meant to establish the effect of MFI innovation on access to finance by SMEs in Kenya. A survey design was used since the researcher intended to research on all deposit taking microfinance in Kenya registered by AMFI which are believed to have largely innovative products that have impacted on the access to finance by SMEs. Detailed study will be conducted on the selected MFIs. The research is considered descriptive as it's aimed to evaluate the effect of MFI innovation on access to finance by SMEs. To achieve this, the researcher used secondary data.

#### **3.3 Target Population**

The population of interest in the study was Deposit Taking Microfinance Institutions registered by Association of Microfinance Institutions (AMFI) and operating in Nairobi. According to AMFI 2012 report there are currently 9 DTM registered members as per December 2012.

#### **3.4 Sample Design**

The researcher focused on deposit taking micro-finance institutions in Nairobi County registered by AMFI from the 59 members registered by the association. Purposive sampling was used that is the researcher chose the sample based on what was appropriate

for the study. A sample of 4 DTM which have been in operation for the last four years since they were registered to DTM were analysed out of the 9 Deposit Taking Microfinance registered by AMFI .

### **3.5 Data Collection**

The researcher used secondary data to answer the research questions on the innovative products that have been introduced into the institutions in the last four years and how they have improved access to finance on SMEs. Secondary data is data which already exists in the record. The researcher thus found this data relevant for the research at hand, for example the researcher made use of AMFI reports and selected MFIs reports for the last four years up to 2012.

### **3.6 Data Analysis**

It is the process of categorizing, manipulating and summarizing data to obtain answers of research questions. The researcher used both qualitative and quantitative methods of analysis. The data was further organized and quantitative data analyzed through use of pie-charts, tables and bar graphs. Spreadsheet software was also used. This was convenient for data entry and quick manipulation of column and rows prior to statistical analysis of data. The researcher carried out multiple regression models using SPSS while analysing the relationship between MFI innovations and access to finance by SMEs. The aim of regression analysis is to summarise data as well as to quantify the relationship among variables. The researcher used multiple regression equation to explain the relationship between the independent and dependent variables. In this study the independent variables are innovations while the dependent variable is access to finance as shown below;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$$

The variables in the formula above represent the following:

$Y$  = access to finance by SMEs (measured by number of active borrowers/clients of the selected MFIs annually for the last 4 years. i.e. 2009-2012)

$B_0$  = constant term

$B_1, \beta_2, \beta_3$  = Beta co-efficient

$X_1$  = Loan product innovations (measured by number of new loan products innovations introduced by selected MFIs annually for the last four years)

$X_2$  = Savings product innovations (measured by number of new savings products innovations introduced by selected MFIs annually for the last four years)

$X_3$  = Location innovation (measured by number of branches opened by selected MFIs)

$\varepsilon_i$  = error term

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSIONS

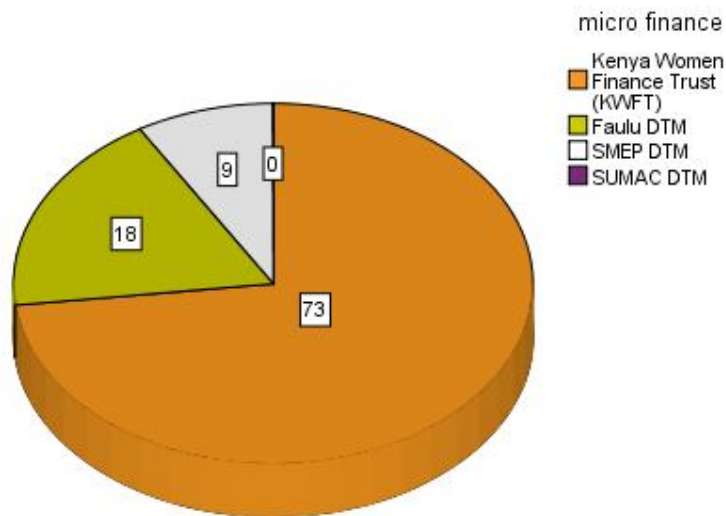
#### 4.1 Introduction

The main purpose of this chapter is to analyse the data obtained from the data collected regarding the topic. The analysis was analyzed as per the study variables. The researcher selected a sample size of 4 Deposit Taking Microfinance drawn from Nairobi County for the study.

The main purpose of data was to carry out multiple regression models using SPSS while analyzing the relationship between MFI innovations and access to finance on SMEs. The aim of regression analysis is to summarize data as well as to quantify the relationship among variables. The analysis was presented through the use of statistical charts, graphs and tables.

#### 4.2 Descriptive Statistics

**Figure 1: Active borrowers**



From the above analysis, KWFT has the highest clientele base at 73%, followed by FAULU at 18%, then SMEP at 9% and lastly SUMAC which has a very low client and is thus displayed as 0. There is a need for SUMAC to add their client base.

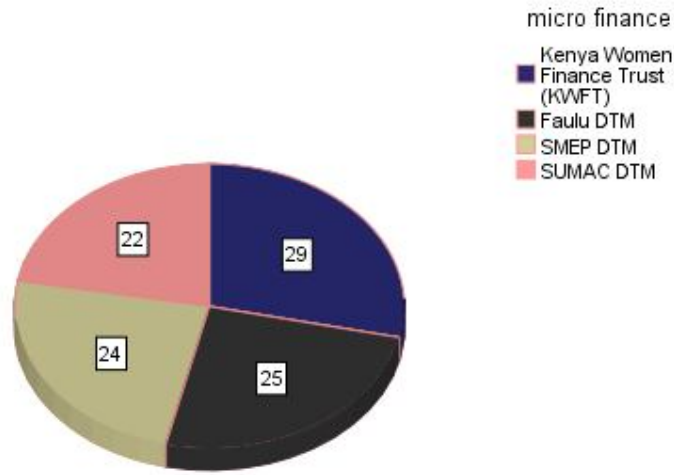
**Table 1: Descriptive Statistics of the DTMs**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Number of Branches opened	16	1	38	276	17.25	13.655
Number of loan Client recruited	16	164	443949	2225160	139072.50	165582.696
Saving products introduced	16	3	8	81	5.06	1.652
Loan products introduced	16	4	7	90	5.63	1.025
Valid N (listwise)	16					

From the table 1 above, the mean number for the branches is 17.25. This is to mean that an average of 17 branches were opened in all the four DTMs. With a mean of 139072.50, number of loan clients was at an average of 139073 clients for the four years. Savings products introduced was at an average rate of 5.06 for the four years and Loan products introduced was at an average of 5.63.

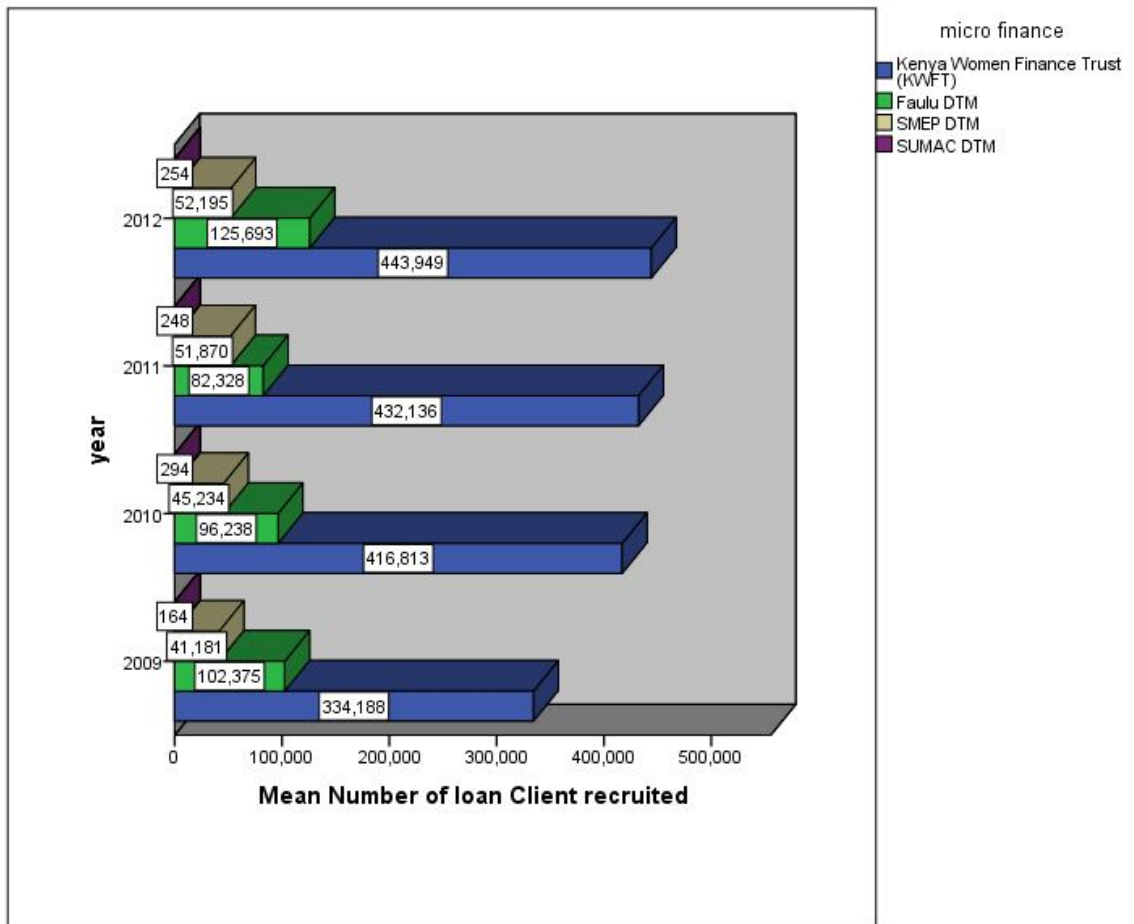


**Figure 2: Loan products introduced**



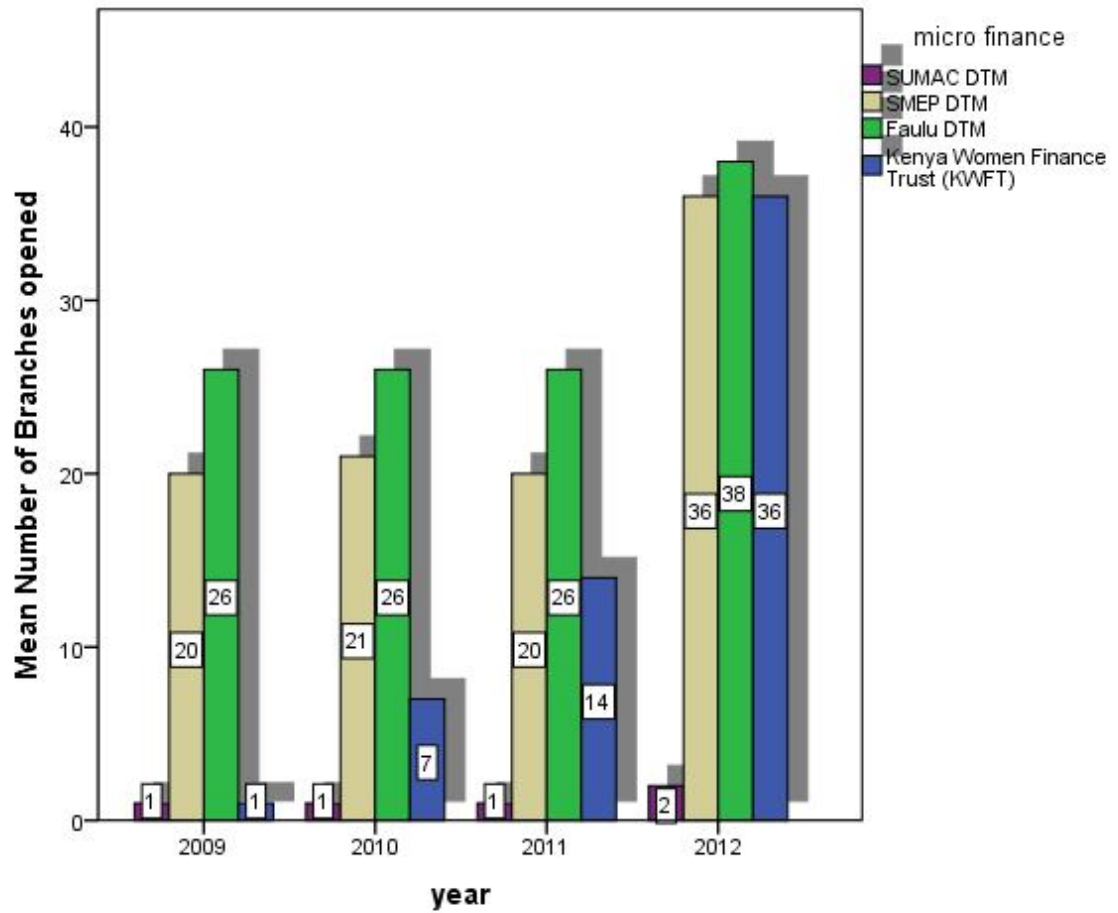
On the basis of Loan products introduced, 29% is of KWFT, 25% is FAULU, 24% is SMEP and 22% are from SUMAC

**Figure 3: Accumulated growth of number of active borrowers**



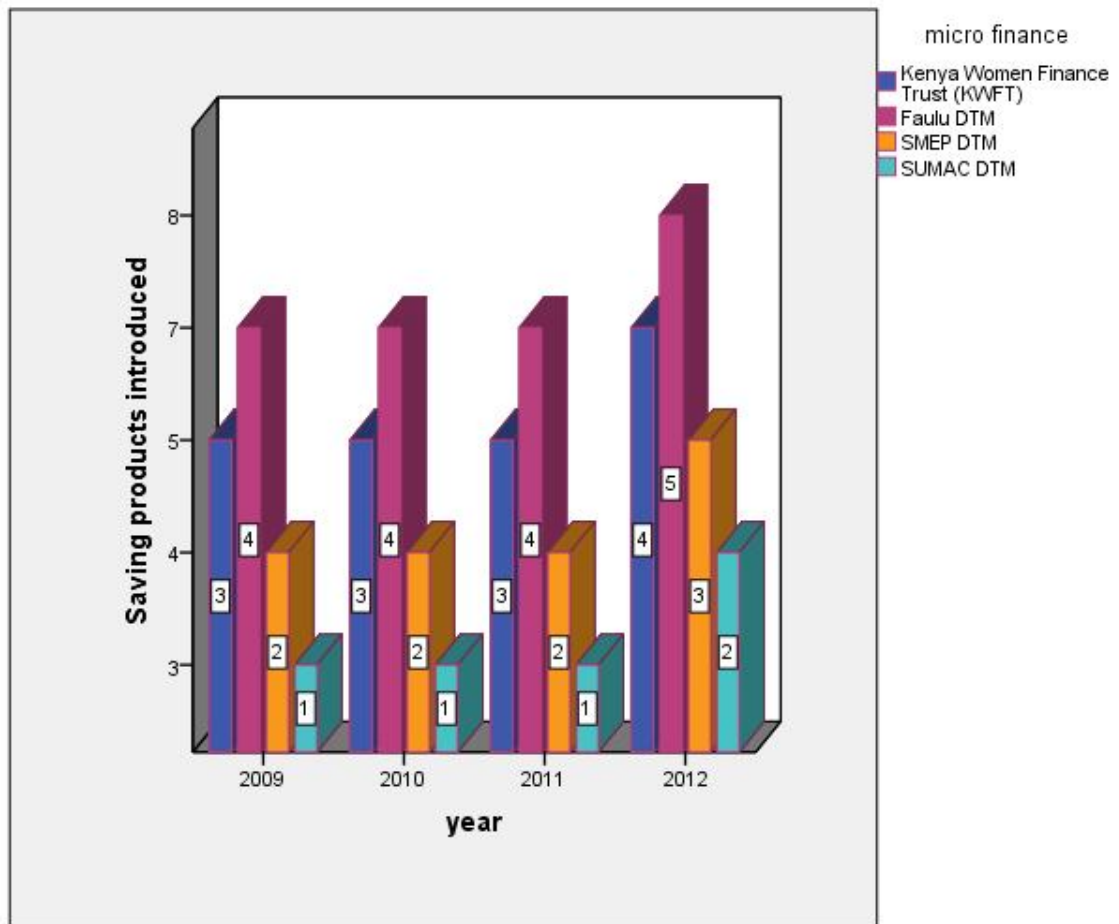
From the graph above KWFT has been able to woo more client as compare to other institution by 2012 it had 443,949 followed by Faulu by 125,693,SMEP 53,595 and Sumac 254 clients.

**Figure 4: Number of branches opened**



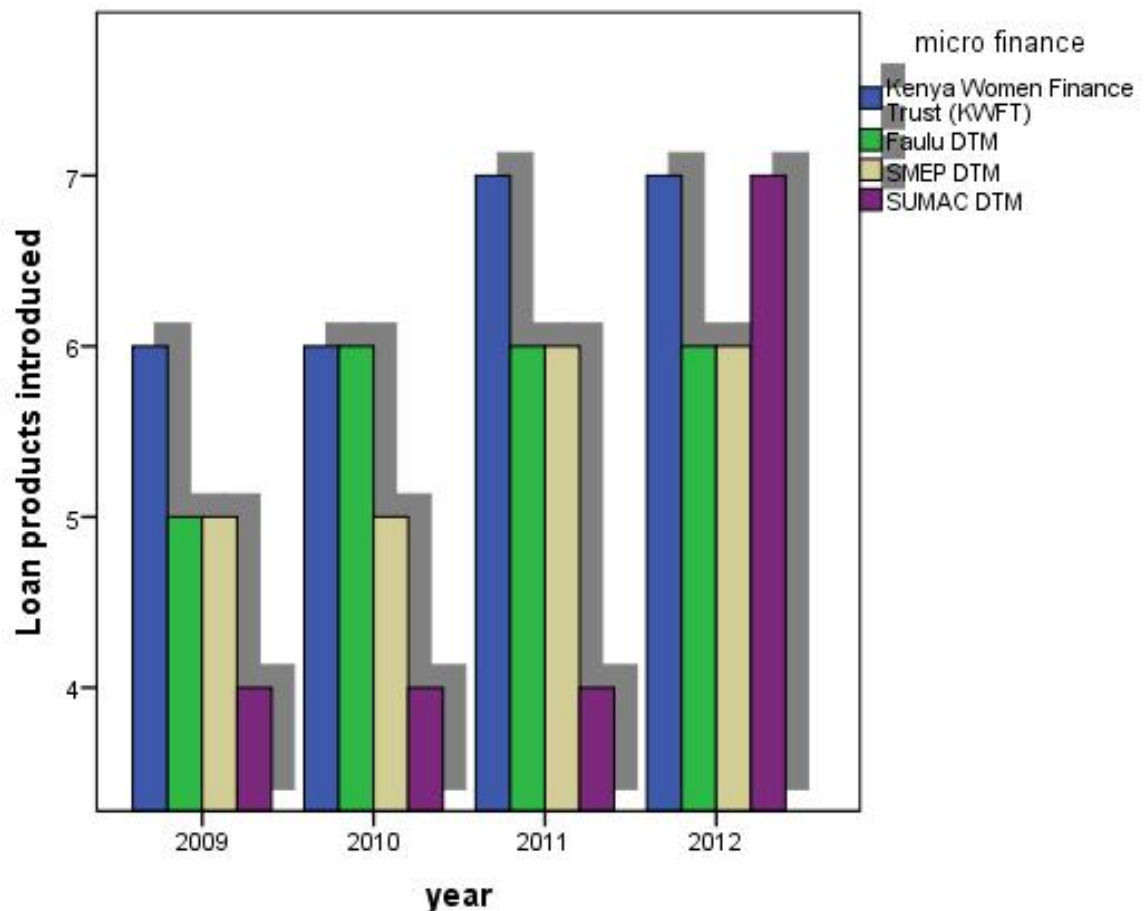
From the above figure 3, Faulu has the highest branches opened at 38, followed by KWFT and SMEP at 36 and lastly Sumac has 2.

**Figure 5: Number of saving products introduced**



From the above figure 4, FAULU topped the list with 8, followed by KWFT 7, SMEP 5 and lastly Sumac has 4 in total.

**Figure 6: loan products introduced**



In the above figure KWFT and Sumac has the highest number on loan products that is 7 followed by Faulu and SMEP which both have a total of 6 loan products.

### **4.3: Regression Analysis Model**

Multiple regression is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more variables. The variables the researcher want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables used to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regressor variables).

In this study the researcher analyze the relationship between MFI innovations and access to finance on SMEs. The dependent variable is the number of active borrowers recruited while independent variables are product innovation (Savings and loan products) and Location innovation. The aim of regression analysis is to summarize data as well as to quantify the relationship among variables.

**Table 2: Regression analysis model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.652 <sup>a</sup>	.426	.378	133006.507	.754

a. Predictors: (Constant), Loan products introduced , Number of Branches opened, Saving products introduced

b. Dependent Variable: Number of loan Client recruited

From the table 2 above analysis, the durbin-watson value is 0.754 indicate a very strong correlation. Thus the assumption is met.

**Table 3: Test of Homogeneity of Variances**

Number of loan Client recruited

Levene Statistic	df1	df2	Sig.
3.889	3	11	.041

The null hypothesis for the test of homogeneity of variance states that the variance of the dependent variable is equal across groups defined by the independent variable, i.e., the variance is homogeneous. Since the probability associated with the Levene Statistic

(<0.001) is less than or equal to the level of significance, we reject the null hypothesis and conclude that the variance is not homogeneous.

**Table 4: Coefficients<sup>a</sup>**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Number of loan Client recruited	.675	1.482
	Saving products introduced	.748	1.338
	Loan products introduced	.627	1.594

a. Dependent Variable: Number of Branches opened

The information shows that the VIF is not equal which show there is no multicollinearity.

**Table 5: Multiple regression observation and analysis conclusion**

		<b>Correlations</b>			
		Number of loan Client recruited	Saving products introduced	Number of Branches opened	Loan products introduced
Pearson Correlation	Number of loan Client recruited	1.000	.742	.683	.641
	Saving products introduced	.742	1.000	.713	.619
	Number of Branches opened	.683	.713	1.000	.461
	Loan products introduced	.641	.619	.461	1.000
Sig. (1-tailed)	Number of loan Client recruited	.	.001	.002	.004
	Saving products introduced	.001	.	.001	.005
	Number of Branches opened	.002	.001	.	.036
	Loan products introduced	.004	.005	.036	.
N	Number of loan Client recruited	16	16	16	16
	Saving products introduced	16	16	16	16
	Number of Branches opened	16	16	16	16
	Loan products introduced	16	16	16	16

Now from the correlation table above, it is clear that we can predict the relationship between clients recruited and the Loan products introduced, Number of Branches opened and saving products introduced because the significant level are low and the Pearson Correlation is very high on all the three predictors.



**Table 6: Correlation Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 <sup>a</sup>	.649	.561	.84004

a. Predictors: (Constant), Loan products introduced ,  
Number of Branches opened, Saving products introduced

**Table 7: ANOVA on effect of MFI innovation on Access to finance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.651	3	5.217	7.393	.005 <sup>b</sup>
	Residual	8.468	12	.706		
	Total	24.119	15			

a. Dependent Variable: Number of loan Client recruited  
b. Predictors: (Constant), Loan products introduced , Number of Branches  
opened, Saving products introduced

From Table 6 and Table 7, the data shows that the multiple correlation coefficient is 0.806 shows that they are highly correlated. Then there is a 64.9% of the client recruited can be predicted by the Loan products introduced, Number of Branches opened and saving products introduced as seen by the R square. The significance level is at the 0.05 level which means that the chances are of making type 1 error. That is to mean the positive rate.

**Table 8: Regression Coefficients results**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
	(Constant)	-3.441	2.684				-1.282	.224	-9.289	2.407
Saving products introduced	3.751	2.958	.350	1.268	.229	-2.694	10.195	.742	.344	.217
1 Number of Branches opened	.749	.605	.302	1.238	.239	-.570	2.069	.683	.337	.212
Loan products introduced	5.148	3.933	.285	1.309	.215	-3.422	13.717	.641	.353	.224

a. Dependent Variable: Number of loan Client recruited

From Table 8, we can say that for every saving product introduced, adds to 3.751 or when all the predictor valuables are zero, it will affect the loan Client recruited by -3.441 Thus we can conclude that there is relationship between MFI innovations and access to finance on women-owned SMEs. However their relationship is not as high and thus we cannot be able to predict fully the outcome of one variable based on the changes of the other. In this result the regression equation can be written as follows;

$$\text{Access to finance} = -3.441 + 3.751 * \text{Loan product innovation} + 0.749 * \text{Saving product innovation} + 5.148 * \text{Location innovation} + 133006.507$$

#### 4.4 Discussions

In this study, the researcher has analyzed the effects of Microfinance innovative products on access to finance by SMEs. Based on the sample analysed that is the 4 Deposit Taking MFI'S that are registered with the Association of Micro finance Institutions, From the above analysis of the 4 Deposit Taking Microfinance institution it shows that there is a strong relationship between the innovative products introduced by the MFI's and access to finance that is increase in innovations leads to more access to finance.

The data analysis gives the overall goodness of fit measures:  $R^2=0.426$  means that 42.6% of variation of y is explained by the regressors  $X_1, X_2$  and  $X_3$  while 47.4% is explained by other factors other than the current regressors. The correlation is 0.754 this shows that there is a high degree of correlation between access to finance and innovative products. Standard error which is the standard deviation of the error term is 133006.507. It is also referred to standard error of regression which is equal to  $(SSE/ (n-k))$ . The column labelled F gives the overall F-test of  $H_0: \beta_1=0, \beta_2=0$  and  $\beta_3=0$  versus  $H_a$ : at least one of  $\beta_1, \beta_2$  and  $\beta_3$  does not equal zero. The computed F is 7.393. The column labeled F significance has associated P- value and since  $0.005 < 0.05$ , we reject the  $H_0$  at significant level 0.05. At 95% confidence interval for the slope coefficient  $\beta_1$  output is (-2.694, 10.195).

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter gives a summary of important elements of the research objectives of the study. It also gives methodology used, findings of the study and the recommendations on how innovative products introduced by microfinance institutions improve on access to finance.

#### **5.2 Summary**

KWFT organisation deal with women only and its aim in doing so is to improve the economic and social status of women and their families. KWFT organisation provides financial and non financial services to low income women entrepreneurs. Its membership is any woman over 18 years can join KWFT, a qualifying client group and corporate bodies committed to the promotion of the object of the company. According to the data analysed KWFT organisation offers the following innovative products: saving products includes tausi junior account, tegemeo savings account, inuka transaction account, riziki fixed deposit account, KWFT-Microfinance call account, Tujiunge –group account; Loan products which includes Biashara Loans, mwangaza loans, mwamba loans, Emergency loan, stima loan, Agri-business loans. The institution has also been able to open 36 branches through-out the country within the four years.

Faulu was registered DTM in Kenya under the Micro-Finance Act and is regulated by the CBK. The institution has managed to come up with a variety of savings, credit, micro insurance and mobile banking solutions. According to the data analysed Faulu DTM has the following innovative products: saving products includes, Hazina account, Hazina plus account, Hazina junior account, Lengo account, Faulu faida fixed deposit account,

Maisha account, Fanisi account, Faulu chama account; Loan products includes, Mkopo biashara loan, SME loans, Soko cash, Agri-business loans, Corporate check-off loans. Currently Faulu Kenya has 37 branches countrywide.

SMEP DTM is registered as a company limited by guarantee. The company has managed to come up with various innovative products that include: saving products that is Msingi Imara, Hazina plus, Biashara account, Kiwa account and Nyota njema. Loan products includes Group business loans, Individual business loans, Asset financing, Development partners loans, Agriculture loans and Booster loans .The institution currently has 3 branches.

Sumac DTM Limited is a financial institution registered under the companies Act. Sumac specializes in providing bridging Finances to:-Individuals, Business People, Limited companies, and Corporates. The analysis shows that the institution has the following innovative products: a savings product includes Mapato account, Jipange account, Jumuiya account and premier fixed deposit account. Loan products includes working capital loans, Asset financing, Bridging loans, Stawisha group loans, Jipange loans, Local Purchase Order financing and Bid bonds financing. Sumac has 2 branches both of which are in Nairobi.

From the data analysis of the 4 Deposit Taking Microfinance institution shows that there is a strong relationship between the innovative products introduced by the MFI's and the access to finance that increase in innovations leads to more access to finance this is revealed in the computations where all the DTM analyzed correlation is above 0.5 that is 0.9 and above.

### **5.3 Conclusion and Recommendations**

The purpose of this study was to establish the innovative products available for SME's to access finance and the relationship between microfinance innovations and access to finance by SME's. The evidence gathered show that microfinance innovations are directly correlated to access to finance. Innovation supplements access to finance. Microfinance institutions have improved access to finance by innovative products that removes operational barriers such as reducing transactional costs, lack of hard collateral requirements, financing basic business components such as electricity connectivity (stima loan ) and water storage (rotar tank loan) and through offering working capital requirements. These products have enabled DTM's open more branches to cater for the remote SME's needs and thus increase in the portfolios respectively. From the data analysis we can conclude that innovation flourish where the market environment is competitive. Competitive financial market induce innovations because Microfinance Institutions have to develop new products or new transaction-reducing procedures or innovate on existing products in order to protect or increase their market share thus improved access to finance.

To ensure that access to finance to SMEs is improved, the following recommendations are hereby proffered. Government and MFIs themselves should enhance the out-reach of microfinance through creating awareness of the products/ activities and operations to SMEs especially those in rural and semi-urban areas that are yet to appreciate the benefits that are available to them. More so, the expansion of MFIs through the establishment of rural branches is an imperative for increase access to MFIs services. Also, the CBK should undertake periodic review of the activities of MFIs in line with the microfinance

policy objectives/targets so that modifications and corrective action could be taken where necessary.

#### **5.4 Limitations**

Unwillingness by Micro finance institutions to give information due to suspicion and institutional-secrecy matters. Time was also a limitation hence the researcher was unable to carry out research on all microfinance and zero down to DTM only.

Most of the DTM also have been in operation in less than three years hence the researcher was unable to research on all the 9 DTM.

#### **5.5 Suggestions for further research**

Although the study has fairly unravelled a number of innovative products introduced by different DTM's and their impact on access to finance by SME's, it has faced methodological limitations which future research may address. Firstly, the study has employed the purposive sampling approach to select only 4 DTM's that have been in existence for the last 4 years, registered with the Association of Microfinance Institutions and are operating within Nairobi. The study has not considered all microfinance institutions in Kenya in its findings. Further research should be conducted widely across the microfinance institutions in the country to give more representative results and to reduce any potential bias in the results.

## REFERENCES

- Akisimire, R. (2010). Microfinance Credit Terms and Performance of SMEs in Uganda; A case study of SMEs in Mbarara Municipality. 17-32.
- AMFI. (2013). 2012 Annual Report on Microfinance Sector in Kenya. 17-46.
- Atieno, R. (2012). Gender, Institutes, Access to Finance and Development of Small-Scale Enterprises in Kenya. *CSAE Conference on Economic Development*, 10-25.
- Atsedo, W., Mwita, J. I., & Saidimu, J. (2012). Challenges of Microfinance accessibility by SMEs in Tanzania. *Thunderbird International Business Review*, 54(4), 570-577.
- Beck, T., & Demirgiic-Kunt, A. (2008). Access to Finance: An unfinished Agenda. *The World Bank Economic Review*, 22(3), 383-396.
- Bharti, N., & Shylendra, H. S. (2011). Microfinance and Sustainable Micro-entrepreneurship Development. *Institute of Rural Management*, 2(10), 2250-3153.
- Che, Y. K. (2002). Joint Liability and Peer Monitoring under Group Lending. *Contribution to Theoretical Economics*, 2(1), 40-62.
- Diagne, A. (1998). *Default Incentives, Peer Pressure and Equilibrium Outcomes in Group-based Lending Program*. Working Paper IFPRI. 101-125
- Filpo, J. (2006, July). *Banking the unbanked: Technology's role in delivering accessible financial services to the poor*. <http://www.gdrc.org/icm/govern>. Retrieved from gdrc.
- Ghatak, M. (1999). Group Lending, Local Information and Peer Selection. *Journal of Development Economics*, 27-50.
- Ghatak, M. (2000). Screening by the Company you keep: Joint liability Lending and the Peer Selection Effect. *Economic Journal*, 110, 601-633.



- Ghatak, M., & Guinnane, T. (1999). The Economics of lending with Joint Liability: Theory and Practice. *Journal of Development Economics*, 60, 195-228.
- Glisovic, J., & Meritxell, M. (2012). *Financing Small Enterprises: What role for Microfinance Institutions?* Washington DC: CGAP,81,1-16.
- Gupta, S. (2008). Microfinance in Africa: Harnesting the potential of a continent. *Microfinance Insight. An intellecap publication*, 6(3),147-158
- Hans, V. B. (2009). *Innovations in microfinance: Looking beyond income poverty*. Retrieved from SSM: <http://www.ssm.com/abstract>
- Holmstrom, B. (1979). Moral Hazard and Observability. *Bell Journal of Economics*, 10(1), 74-91.
- Idowu, F. C. (2011). Impact of Microfinance on Small and Medium Enterprise in Nigeria. *Proceedings of the 7th International Conference on Innovation and Management*, 1868-1870.
- Kiraka, R. N., Kobia, M., & Katwalo, A. M. (2013). Micro, Small and Medium Enterprises Growth and Innovation in Kenya: A case study on the Women Enterprise Fund. *Investment Climate and Business Environment Research Fund*, 28-82.
- Kojo, S. (2013). Exploring Innovations in Microfinance Institutions in Northern Ghana. *Business and Economic Research*, 3(1), 442-456.
- KWFT. (2010). Giving client a voice and visibility. *The Pillar*, 15(1), 2-14.
- Lafourcade, A., Isern, J., Mwangi, P., & Brown, M. (2005). *Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa*. Retrieved from the mix: <http://www.themix.org>
- Littlefield, E., Murduch, J., & Hashami, S. (2003). Is microfinance an effective strategy to reach the Millennium Development Goals? *Focus Note*,24,1-9.

- Llanto, G. M., & Fukui, R. (2003). *Innovations in Microfinance in Southeast Asia*. Philippine Institute for Development Studies. Retrieved August 30, 2013, from <http://www.pids.gov.ph>
- Marjory, R. A., Ojwang, C., Aila, F., & Oima, D. (2013). Effect of Microfinance on performance of Women-owned Enterprises in Kisumu City, Kenya. *Greener Journal of Business and Management Studies*, 3(4), 164-167.
- Maurya, R. (2011). Theory of Joint Liabilities, Adverse selection, Assortative Matching and Self-financing. 2(5), 108-118.
- Mbogo, M., & Ashika, C. (2012). Factors influencing product innovation in Microfinance Institutions in Kenya:A case study of MFIs registered with the Association of Microfinance Institutions, 1-16.
- Mohan, K. (2011). Role of Microfinace in Women Empowerment (An Empirical Study in Pondichery region rural SHG's). *Journal of Management and Science*, 1(1), 1-10
- Muktar, M. (2009). The Role of Microfinance Banks in the Promotion and Development of Entrepreneurs in Semi-Urban and Rural Areas. *Interdisciplinary Journal of Contemporary Research In Business*, 1(1),2307-6275.
- Nugroho, Y., & Miles, I. (2009). Mini study 06 - Microfinance and Innovation. *Global Review of innovation intelligence and policy studies*, 2-42.
- OECD. (2005). Oslo manual: Guidelines for collecting and interpreting innovation data. *OECD*. Paris: Third Edition.76-85.
- Oni, E. O. (2012). Assessment of the Contribution of Microfinance Institutions to Sustainable Growth of Small and Medium Scale Enterprises in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*, 3(9),1099-1109.

- Quaye, D. N. (2011). Effect of Microfinance Institutions on the Growth of Small and Medium Scale Enterprises:A case study of selected SMEs in Kumasi Metropolis. 27-56.
- Raya, K. R. (2010). Impact of Microfinance - An empirical study on the Attitude of SHG Leaders in Vellore District (Tamil Nadu, India). *Global Journal of Finance and Management*, 59-68.
- Spaulding, W. C. (2013, July 21). *This Matter*. Retrieved from this matter: <http://www.thismatter.com>
- Steel, F. W., & Andah, O. D. (2003). Rural and Microfinance Regulation in Ghana:Implications for development and performance of the industry. *Africa Region working paper*.
- Stiglitz, J. E. (1990). Peer Monitoring and Credit Markets. *The World Bank Economic Review*,4(3),351-366
- Terberger, E. (2003). Microfinance Institutions in the Development of Financial Markets. *CEPAL REVIEW 81*, 110-124
- Vincent, G. (2004). Sustainable Microentrepreneurship: The Role of Microfinance, Entrepreneurship and Sustainability in Reducing Poverty in Developing Countries, 1-9.
- Wang, X. (2013). The Impact of Microfinance on the Developments of Small and Medium Enterprises: The case of Taizhou,China. 5-16.
- World Bank. (2004). Rural and Microfinance regulation in Ghana: implication for development of the industry. 15-25.

**APPENDIX I: Y's and X's Values for the sampled DTMs for the 4 years**

<b>DTM</b>	<b>2009</b>				<b>2010</b>				<b>2011</b>				<b>2012</b>			
	Y	X1	X2	X3	Y	X1	X2	X3	Y	X1	X2	X3	Y	X1	X2	X3
<b>KWFT</b>	334,188	5	5	1	416,813	6	5	7	432,136	7	6	14	443,949	7	7	36
<b>FAULU</b>	102,375	5	7	26	96,238	6	7	26	82,328	6	7	27	125,693	6	8	38
<b>SMEP</b>	41,181	5	4	20	45,234	5	4	21	51,870	6	4	20	52,195	6	5	36
<b>SUMAC</b>	164	3	2	1	294	4	3	1	248	6	3	1	254	7	4	2
<b>TOTALS</b>	<b>477,908</b>	<b>18</b>	<b>18</b>	<b>48</b>	<b>558,579</b>	<b>21</b>	<b>19</b>	<b>55</b>	<b>566,582</b>	<b>25</b>	<b>20</b>	<b>62</b>	<b>766,106</b>	<b>26</b>	<b>24</b>	<b>112</b>

## APPENDIX II: DEPOSIT TAKING MICROFINANCES

MEMBER NAME	ADDRESS
Kenya Women Finance Trust- DTM	Upperhill, Kiambere Road  P.O BOX 4179-00506 NAIROBI.
Rafiki Deposit taking  Microfinance Ltd	Elroy Plaza, Tom Mboya Street  P.O. Box 66049 00800 Nairobi
Faulu Kenya DTM	Ngong Road, Ngong lane  P.O BOX 60240-00200 NAIROBI
SMEP DTM	Kirichwa Road, Kilimani  P.O BOX 64063 NAIROBI
Remu DTM Ltd	Finance House, 14th Floor, Loita street  P.O. Box 20833-00100 Nairobi
Uwezo DTM Ltd	Park Plaza, Ground Floor, Moktah Daddah Street  P.O. Box 1654-00100 GPO Nairobi
Century DTM Ltd	New Pumwani Road K K Plaza, Gikomba
Sumac Credit DTM Ltd	Consolidated Bank Building, Koinange Street, 2nd Floor  P.O. Box 11687-00100  Nairobi