# THE EFFECT OF PRODUCT DIVERSIFICATION ON THE FINANCIAL PERORMANCE OF MICROFINANCE COMPANIES IN KENYA

#### BY

#### **MAINA JOSEPH KIMARU**

#### D61/67342/2011

# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIRMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMNISTRATION OF THE BUSSINESS UNIVERSITY OF NAIROBI

NOVEMBER, 2013

## **DECLARATION**

I declare that, this is my original wor	k and has not been presented for a graduate
degree in any other university.	
Signature	Date
MAINA JOSEPH KIMARU	
D61/67342/2011	
This research Project has been submit	ted for examination with my approval as the
university supervisor.	
Signature	Date
Supervisor	
JOSEPH BARASA	
DEPARTMENT OF FINANCE &	ACCOUNTING
SCHOOL OF BUSINESS	
UNIVERSITY OF NAIROBI	

#### **ACKNOWLEDGEMENT**

I am deeply grateful to the Almighty God who makes all things possible and for giving me strength, good health and sound mind throughout the study period.

First, I would like to extend my appreciation to my supervisor, family, friends and all the respondents who contributed tremendous inputs towards the successful completion of this research project.

Special gratitude and appreciation go to my Supervisor, Mr. Joseph Barasa, for his patience, guidance, support and dedication throughout the study. He was such an inspiration! I truly feel indebted to him.

Secondly, I am grateful to my parents James and Martha, for foreseeing the future and sacrificing so much to prepare and support me, the same extends to my entire family, for cheering me up after every tough day of fieldwork.

Finally, I am grateful to all the respondents who provided invaluable data and information. I couldn't have done it without them!

#### **DEDICATION**

To

My loving mum

Martha Nyaguthi Theuri

(Your sacrifices never went unnoticed and are forever appreciated)

To

My dear father

James Theuri Kimaru

(You were there when I needed you and you made this possible, your support

Went a far way and I appreciate it)

To

My aunt

Helen Mureithi Gichuiya

(You were a source of inspiration, your faith moved mountains, without it I couldn't be this far)

God bless your lives and may you live in His favour

#### **ABSTRACT**

The main objectives of this study were to identify the types of diversification in the Kenyan microfinance market and how they relate to performance and to establish the effect of non interest based diversification on the financial performance of MFI's. These non interest based services include money transfer, saving products, deposit taking and micro insuarance. The study adopted a descriptive survey design and relied on secondary data collected from the financial statements, news bulletins and websites of Central Bank of Kenya (CBK) and Deposit Taking Microfinance Institutions.

The collected data was cleaned and coded before being analyzed by use of the Statistical Package for Social Sciences (SPSS). The data analysis techniques included descriptive statistics like the mean, minimum, maximum and standard deviation. In addition, inferential statistics like correlation analysis and regression analysis were also used to establish relationships between the dependent and independent variables. The findings were presented in tables and graphs.

Major research findings indicated that the diversification indicator, Return on Assets (R.O.A) indicator and Return on Equity (R.O.E) indicator were on a growth pace from 2008 to 2012. In addition, the findings indicated that diversification of products and services at the DTMs explained 62.11% on the financial performance of the DTMS. However, only the ROA had a significant correlation at a level of significance of 0.01. The main conclusion was that the diversification of products was an appropriate strategy to increase the profit potential of DTMs. The researcher recommends improvement of the product adoption and innovation policies to increase product diversification and hence assure the DTMs of increased earnings. There is also need for the DTMs to recruit product managers with specific product portfolios in order to ensure they are responsible and continually drive the innovation agenda of the DTMs. The researcher suggests that a similar study be carried out targeting all the MFIs in Kenya with an aim of establishing the effect of product differentiation on the profitability of the MFIs. This will inform the strategy of the MFIs and strengthen their role in the economic development of the country.

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#### LIST OF ACRONYMS AND ABBREVIATIONS

AMFI Association of micro finance.

CMF Combined micro finance

DTM Deposit taking Microfinance

GDP Gross domestic product

KWFT Kenya women micro finance

MFI Microfinance institution

SACCO Saving and credit cooperative

SMEP Small micro enterprise program

UNDP United Nations Development Programme

ROE Return on Equity

ROA Return on Assets

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1Background of the Study

In Kenya, there has been a fluctuation of the interest rates since year 2011 and this has led to people taking lesser credit and more defaulting in loans. This is according to the central bank of Kenya. Financial institutions, which primarily depend on interest income for their operations, have in that sense reduced their dependence on the interest income by diversification. They have focused on other non interest income. The Micro finance institutions have not been left behind on this. Does this always lead to better performance? Kenya being a developing economy, it has many micro finance institutions and they have also been affected by the interest rates vitality. Below are introduction to the concepts of product diversification and performance followed by the problem statement.

#### 1.1.1 Product Diversification

Diversification is a concept of reducing risk in finance. It is a fundamental concept of portfolio theory. It can simply be defined as a way of not putting all eggs in the same basket derived from Markowitz portfolio theory (Marling and Emanuelson 2012). The risk taken care of here is the unsystematic risk. In financial services providence, it refers to development, marketing and delivery of one or more financial services that expand an institutions existing product offering. The application of the theory depends on the risk component of every stock systematic and unsystematic risk. Its purpose is to dilute the unsystematic risk of the portfolio by selecting products with low coleration to each other (Hu 2012).

The concept of risk management is hence very important. Risk is the probability of loss inherent in an organisations operations and environment such as competition and adverse economic conditions (Orina 2011). Risk can either be financial risk due to use of debt or business risk. Business risk is divided into systemic risk that occurs to the whole industry hence affection everyone and unsystemic risk that occurs only to a particular firm. Only unsystemic risk can reduced by diversification. Other approaches to reducing risk are using insuarance, government programs weather modification among others. What diversification does is to lower the variance of a portfolio if the product are not in the same line (Orina 2011).

Beside the risk reduction, there are other benefits of diversification. According to Orina (2011), diversification enhances growth. It provides a base for increase in market share. Diversification also helps in survival of firms by increasing customer base for the firm. Hence the firm can depend on more than one product to increase and maintain their customer base. Diversification also, in cyclical businesses, helps in regulation of cash flows throughout the year. Ann example would be those who deal with winter products, can diversify to summer products to make sure they have sufficient cash flows throughout the year. In a financial institution, more sources of income would ensure there are sufficient cash flows for loans and other operating expenses.

#### 1.1.2 Financial Performance

Performance can be defined as meeting a goal (Boru 2011). It is the accomplishment of a given task measured against present known standards. Its measure is used to evaluate the relative success of a firm. There have been various methods of measuring

the performance of a firm as explained by Block and Hirt (1992). There are those that measure profitability, others liquidity, asset utilization and debt utilization. In the setting of a microfinance institution, Rosenberg (2009) gives five basis of evaluating micro finance institution. This is breadth of outreach, depth of outreach, loan repayment, financial sustainability and efficiency. The reason why outreach is very important is that MFI's institutions target the poor. It's very important to keep evaluating performance to make sure that the institution remains viable and achieves both short term and long term goals.

There are many recorded drivers of performance of financial institutions. Harker and Zenios (1998) list the following as the main drivers. One of them is strategy. Strategy is a key driver for success. Strategy should be in the areas of product mix, client mix, geographical locations and distribution channels. Other drivers are flexibility and responsiveness in operations, ability to understand time based competition in response to customers' needs, diversification and organizational efficiency. They also list some environmental drivers of performance which are innovation, regulation and technology. Innovation enables a firm to produce new products, produce former products but more efficiently among others. Regulation prevents unfair competition for firms hence enhancing performance. Technology as a driver of performance enables efficient production, new product production among others.

#### 1.1.3 Effect of Product Diversification on Financial Performance

This has been an area of much debate on the effects product diversification but what is agreed is that product diversification has an effect on performance. One argument is that diversification has no significant impact on performance though it has an impact on risk adjusted performance (Chang and Elyasiani 2008). Another view is that

diversification has had significant effect on performance of financial institutions especially during economic crisis (Kuppuswany and Villalonga 2010). Among the effects on performance is that it increases efficiency (Rotich 2011). With those of the argument that diversification is inefficient saying that additional product come with additional cost hence they do not increase on performance.

The motives of diversification can be classified under marketing power, agency and resources. Market power is where organisations indulge in various forms of anti competitive behavior or in reaction to other competitors. Agency is where managers may wish to pursue growth through diversification. Resources refer to specific assets, core competencies or distinctive capabilities of the firms that can potentially be exploited in new markets. The extent to which diversification increases or decreases shareholders value in profit oriented firms is still unclear. This clings on performance (Goddard et al 2008).

#### 1.1.4 Microfinance Institutions in Kenya

Microfinance refers to small-scale financial services for both credit and deposits that are provided to people who farm, fish or herd, operate small or microenterprises where goods are produced, recycled, repaired or traded, provide services, work for wages or commissions, gain incomes from renting out small amounts of land, vehicles, draft animals, or machinery and tools and to other individuals and local groups in developing countries, in both rural and urban areas (Marguerite 1998). It is the provision of financial services to low income and poor individuals and households that do not have access to formal financial services. Microfinance is a way to extend same rights and services to low income households that are available to everyone else. It protects people against shocks and allows the majority of the population to become

part of country's economic activity. It can help to build markets and show that profits and principles can reinforce each other (Kofi Anann, UN Secretary General, 10 October 2005).

A microfinance institution (MFI) is an organization that provides financial services targeted to the poors. While every MFI is different, they all share the common characteristic of providing financial services to a clientele poorer and more vulnerable than traditional bank clients. A microfinance institution may be a bank, cooperative, credit union, non-governmental organization (NGO), or a non-bank financial intermediary. MFI's provide clients from poor households with a range of money management and banking services, which include credit services, deposit services, insurance products and financial advisory services. MFIs can be profitable in providing services to the poor only if costs are contained, risks are managed, and the clients are treated as active partners.

The clients of microfinance are generally poor and low-income people. They may be female heads of households, pensioners, artisans or small farmers. The client group for a given financial organization depends on that organisation's mission and goals. Though the clients are poor the microfinance needs to be sustainable. Microfinance institutions need to be profitable in order to cover the costs of reaching out and meeting the demand of underserved segments of the population over a sustained period of time. Additionally, after a series of very small loans, a micro entrepreneur often wants to expand her business; a microfinance institution must keep up with the demand for larger loan amounts so businesses can grow into small enterprises (Kabir 2002).

Kenya is a developing country. It has an estimated 41.61 million according to World Bank. According to UNDP report, poverty level in 2006 was 45.9% which is very high for a country. This are those classified to be earning less than \$2.00 per day. The main economic activities are agriculture, manufacturing, fishing, mining and transport. Agriculture has the highest GDP of about 24% according to Kenya bureau of statistics (2012) report. Financial intermediation had GDP of 6.4% in 2011.

According to central bank of Kenya website by 2012 December, the financial sector was made up of 43 commercial banks, 1 mortgaging finance corporation, 8 deposit taking micro finance institutions, about 3500 Saccos, one post office saving bank, and 109 foreign exchange banks. There has been asset and profit increase in the commercial banking sector. The number of deposit taking microfinance has been increasing over time since the act that formed them was passed. The Kenyan microfinance sector is made up of both formal and informal institutions.

The microfinance sector has grown tremendously over the years. In 2012, Kenya was ranked 5<sup>th</sup> in the economic intelligence unit global microfinance 2012. This was the highest in Africa. This shows that the sectors has grown compared to other countries. The ranking was done based on regulatory framework and practices, supporting institutional framework and adjustable factors. This was notable in Kenya because of the implementation of the microfinance act 2006 and SACCO societies act 2008 especially the licensing of DTM's. Mobile banking also played a big part in improving the sector which also has played a big part in the overall banking industry improvement. Stability due to negative political climate scored the worst for Kenya.

Since 1980s, the landmark in Kenyans microfinance history is the intermediary microfinance act of 2006. This is because before there was no specific laws regulating the sector. However since that law, those that keep deposits have to be regulated by the central bank of Kenya.

According to the Microfinance Act 2006, one of the major issues is licensing of deposit taking microfinance institution. This involves a process of transformation for the current MFI that involves various institutional changes. It is much easier for a new MFI to be registered as a DTM than for an old one to be transformed. The process for licensing a DTM has the following process. First the name should be approved by the register of companies and names. If approved the name should be forwarded to the CBK in order of priority with words deposit taking microfinance or its acronym DTM. Secondly apply for a license by completing and submitting a certified application form to the CBK accompanied with all supporting documents prescribed in the regulation. This includes documents supporting the minimum core capital Also complete and submitted are the "fit and proper forms" for all provision. significant shareholders and proposed director with accompanying supporting documents. The third step is assessment by CBK and issuance of letter of intent. Upon meeting the requirements for licensing, the CBK advises the applicant on the next step of payment of the licensee fees, preparation of business premises, instillation of Management information systems and completing the remaining documents. The final step is where the CBK issues the license upon satisfaction.

DTM business is on the increase in Kenya and better regulated (Ndulu 2010). But there are factors that affect the transformation of MFIs. This includes governance and

ownership challenges. This occurs because the MFI are transmitting from ownerless to owned and getting people who are willing to invest is a challenge. Another challenge would be the transition process to a limited liability company which comes with stiffer regulations. The capital challenge cannot go unnoticed since the basic minimum capital is 60 million for national wide DTM and 20 million for a community based DTM. Strong leadership is required and also staff must be involved in the transition process sometimes it requires staff upgrade. Acquiring management information system is expensive.

#### 1.2 Research Problem

Product Diversification can occur due to various reasons. Palmer (1998) lists some of the causes as follows. When a product has reached its maturity phase of its lifecycle and it is heading to decline, a new product may be sought to maintain the sales level. This occurs to make the organisation remain relevant. Secondly a new product may be developed as a way of maximizing on the available capacity. Institutions may also develop a new product to balance the existing portfolio, reducing the risk of depending on few products hence reducing risk. It also reaches a point where clients need to be kept and make them obtain loyalty. Introducing a new product would lead to this. All this factors are some of the causes of product diversification in micro finance institutions.

There is a consensus that most MFI's have moved from a single product which was loans to multiple array of products (cambier 2010, Aghion and Morduch 2005, Dupas and Robison 2009). These products are diverse, while some may be documented, others are not. Actually, according to Aghion and Morduch (2005), there has been

microfinance revolution form micro credit to 'microfinance'. This includes collecting savings from the low income households, to provide micro insuarance. The change of name has come with a change in orientation towards less poor households and towards the establishment of commercially oriented fully regulated financial entities. But it is also agreed that microfinance institutions are to serve the poor (cambier 2010, Aghion and morduch 2005, Kabir 2002). The problem arises when the various factors make them unsustainable. With the emergence of multiple products, the big question has been whether they are reaching the poor or they are aimed at alienating the poor (cambier 2008).

There are various aspects of MFI. This includes viability, sustainability, outreach and development goals. Viability is how an institution covers its cost. Sustainability is how an institution mobilizes internal funding. Outreach is on how the institution is able to reach out to its target population and how accessible it is. The development goals define why an organisation exists. For successful existence of an MFI, it should be able to manage both the income and expenses in a way that it is profitable hence sustainable without keeping aside its developmental goals. The performance of an MFI should enable it to serve both the short term and long-term goals. This is what leads to diversification of product to offer more avenues of income. However this income may come attached to an extra cost. When this cost outnumbers the income, then the MFI will run at a loss. MFI are also faced with competition from commercial banks and their fellow microfinance institutions. McIntosh et al (2004) notes that there before MFI's were established as regional monopolies but that has changed. There has been rising lenders as the industry expands. He notes that entrant of competition induces a deterioration in repayment performance and a decrease in

savings among borrowers. Is then diversification the solution to this? Does diversification open ways for MFI'S to find new market segments? Does it in any way enhance performance in the MFI?

Given the recent focus on non interest income for financial institutions there is need for the effects of this shift to be identified for financial institutions. In the same time there has been more fluctuations in the interest rates in the Kenyan market posing risk on financial institutions. Micro finance institutions in Kenya have been on the increase according to the central bank of Kenya. Most have followed the path of commercial banks and diversified from interest income. To bridge that gap various research have been done on the effect of diversification to financial institutions performance. this has been done for various financial institutions like U.S.A by Gordan, McKillop and Wilson (2008) doing 'diversification and financial performance of US credit unions. In Kenya it has been done by Kimeu (2012) and Rotich et al (2011) focusing on commercial banks. However none has been done on the microfinance institutions in Kenya leaving a gap. It is in this regard this I have decided to take on this research. The main questions being what are the types of diversification and what are their effects on the financial performance of the Deposit Taking Micro finance institutions in Kenya.

#### 1.3 Objectives of the Study

The objectives of the study were:

- i. To identify the types of diversification in the Kenyan microfinance market.
- ii. To establish the effect of diversification on the financial performance of Deposit Taking Microfinance Institutions in Kenya.

#### 1.4 Value of the Study

With the findings, the micro finance institutions can get to know whether the current diversification mechanisms are beneficial or detrimental to them achieving their goals and after that enable them to plan and improve on their diversification.

To prospective investors in the area of micro finance, they can have ideas on diversification of microfinance products and the effect of diversification to their institutions.

To scholars and future researchers the study will increase the field of knowledge and will give them an opportunity to reexamine the area of study and use the findings as a source of reference. The study will be used as a stepping stone to studying diversification of product.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter looks at relevant literature in the background of diversification and microfinance. It looks at the theories that relate to diversification of products, then goes forward to look at the empirical evidence in product diversification in microfinance. It then looks at the Kenyan case of microfinance and Faulu DTM. Lastly it looks at the methodological issues that have arisen.

#### 2.2 Theories on Product Diversification

Diversification can be defined as the development, marketing and delivery of one or more products that expand an institutions existing product offering (Frankiewicz and Churchill 2011). There are various theories that try to explain diversification. Among them are market based theory, Resource Based View, Internal Transaction Cost theory and Agency Theory. These are explained below.

#### 2.2.1 Market Based View

This theory states that firms will diversify in order to enhance corporate strategic competiveness. If this is achieved the firm value will increase. The first argument refers to Porter (1980) opinion. He noted that competition was vital for survival in a corporate environment. He defined a corporate environment as the industry the firm is. The corporate environment is full of competition. Barney (2002) explains that diversification is one strategy to overcome the competition. By diversifying, companies can build market power. Market-based view approach explains that

companies diversify with motivation to overcome the competition complexity, to build financial strength and cost efficiency.

#### 2.2.2. Resource/Efficiency Based View (RBV)

This theory has been derived from Penrose (1959) (as quoted by Kor and Mahoney 2004) stating that diversification is driven by the exploitation of some firm specific resources that have been accumulated in the past. He says that performance to that company is a set of combination of resources, so there is the growth of the firm theory. This theory explains that company's growth is limited by opportunities that exist as a function of a set of the company's earning power source. Penrose's theory gave birth to RBV. RBV basic reason was the guide, type, amount and nature of enterprise resources should be considered first in selecting, establishing strategies that can lead to sustainable competition in order to achieve competition advantage.

#### 2.2.3. Internal Transaction Cost

In diversification context, internal cost efficiency is possible if the company develops diversification through vertical integration between complementary businesses. Development of vertical integration and complementary businesses are done to meet assumptions of Transaction Cost. There is a relationship between the frequency the business unit intensity to cope uncertainty and a prioritized on specific business transactions. Porter (1980) explains that vertical integration is a combination of production processes, distribution, sale and/or other economic processes, which are different technologies within the boundaries of a single firm. This reflects that company decision was to use internal transactions rather than market transactions in order to achieve economic goals. According to Porter, one benefits of vertical

integration is that companies improve the company's ability to offer a value added differentiation and more under management control.

#### 2.2.4. Agency Theory

Agency theory (Jensen & Meckling, 1976) explains that separation between the owner and manager of company will always followed by emergence of cost because the lack of interests alignment between owners and managers. These costs are called agency costs and this include expenditure to monitor the managers activities, expenditure to create an organizational structure to minimizes the unwanted managers actions, as well as the opportunity cost arising from the condition in which the manager cannot make decisions immediately without shareholder approval. One important implication of the agency problem is related to the company's investment policy. Investors would prefer high risky high returns profiles while managers prefer low risky low return profiles. This is so since they have a personal fear of losing their jobs. Diversification can provide incentives for managers through investment and ownership. Therefore, the emphasis is not only based on performance evaluation of financial outcomes, but more emphasis on optimize behavior (Jensen & Meckling, 1976; Jensen, 1986). Hermalin and Katz (2000) states that risk averse managers would like to diversify away risks associated with their firms. On the other hand, in evaluating corporate investments, the owners of the firm care about the expected level of returns, the riskiness of returns and the informativeness of returns as a signal of managerial effortability. This brings out the agency conflict.

#### 2.3 Empirical Review

The number of non interest income for the financial institutions has been on the increase. Goddard, McKillop and Wilson (2007), conclude that in 1993 to 2004 there was a steady increase in the share of non interest income in the operating income of the US credit union as a whole. The growth of non interest income was made possible by technological progress and deregulation. They also note that large credit unions are the ones that benefited most from diversification unlike small unions which lack expertise and have less capital. They argue that big financial institutions have capacity to expand by diversification unlike small institutions which are sometimes run by unqualified personnel and may not have adequate technology.

Chang and Elyasiani (2008), doing their research in 510 Financial holding companies in USA on relationship of financial performance and insuarance as an additional product, using quaternary panel observations of year 2003-2005, find out that bank expansion into non interest activities can improve risk adjusted performance. Insuarance activities according to them can help small sized financial holding companies improve on risk adjusted returns but do not have consistent significant impact on performance of very large financial companies.

While doing a research on the effects of rising competition on the incumbent lenders, Craig et al (2004), come up with various conclusions on MFI competition. The research done in the years 1998 to 2002 in Uganda aimed at analysing the behavior of borrowers in case of competition of MFI's particular entry of a new MFI. Data was collected from individuals, groups and district information centers on microfinance.

The number of MFI's has been on the increase and that has finished the monopoly initially in the market. They also noted that credit saturation was lower in the rural areas though there was more entrance of MFI's there than in the urban centers. Competition brings about deterioration in performance of loans and a decrease in saving deposits among incumbent MFI. This is because clients take up multiple loans thus damaging the repayment rate of the incumbent MFI. The MFI does also have to share on the deposits hence lesser deposits per MFI. They found out that loan volumes in the market don't change hence entrants of new MFI just brings more sharing of current loans volumes. All this shows that we cannot avoid competition and ways have to be made to stay competitive. This is where diversification comes in handy. For sustainability the income avenues have to be increase in a competitive market hence increase in performance.

There is other research that has been done on the relationship between performance and diversification in banks. Souza and Lai (2003) dealing with diversification of loan portfolio with respect to region in Canada and efficiency of big five chartered banks, found that the banks were systematically underperforming hence no sufficient efficiency diversification. However a merger between banks with different business lines but similarities in the region composition can result to more efficient entity. Turkmen and Yigit (2012) assessing the relationship between sectoral diversification and bank performance in 40 banks in turkey find that diversification had a negative effect on performance. They argue that diversification brings about increased cost hence lesser profit.

Zohra and Pandey (2011) took a study to compare the financial performance of microfinance institutions with that of commercial banks in India. They conclude form their findings that there is no significant difference in return on equity, return on assets, debt equity ratio and net profit margin. However there is a significant difference in operating expenses to total assets of commercial banks to microfinance institutions on the advantage of commercial banks. The conclusion is that MFI's incur high operating costs because of their business model which is a door step delivery model. Banks on the other side incur lower cost because the customers mostly come to be served.

Huang and Chen (2008) on their research based in Taiwan on commercial banks for year 1992 to 2004 note that banks with high interest income and low noninterest income operate more cost effectively. This is because diversification causes an additional cost. Those that had diversified were less cost effective. They also note there is a growing percentage of a non interest income in the operating incomes in Taiwan.

One of the arguments is that diversification is brought up to increase organisational competitiveness. Jensen (1986) states that competition in the product and factor market drive prices towards average cost hence reduce the marginal revenue. Managers must therefore increase efficiency for survival of the organisation. There are many ways of dealing with competition which includes takeovers, mergers, diversification and expansion in the same line of business.

Risk management is also another argument that brings up diversification. Diversification is one tactic that firms use to manage risk. Pyle (1997) defines risk management as process by which manager satisfy the needs of potential risk measuring by identifying the key risks, obtaining constant, understandable, Operational risk measures, choosing which risk to reduce and which to increase and by what means, establishing to monitor the results risk position. The main risk that can be reduced by diversification is called the unsystemic risk. Firms undertake a variety of actions to reduce risks through diversification, including entering diverse business lines, taking on project partners and maintaining portifolios of risky projects such as research and development of natural resource exploration (Hermalin and Kutz 2004). Diversification aims at reducing the overall risk.

There are several relationships that have been researched on with diversification. One of them that has been brought to light is the relationship between diversification and informativeness. There is a positive coleration between diversification and informativeness hence risk reduction according to Hermalin and Kutz (2004). By informativeness we mean the owners (shareholders), who are the principals in the agency theory, having information about agents (in these case managers). The owners prefer a return structure that entails a high degree of risk but is highly informative to one that has low risk and lowly informative. This is where the agency conflict originates. Diversification enables the owners to get more information on the managers and hence reduce the risk that the owners have set on their investment. But this depends largely on the managers where the manager can choose to follow the owners preferred diversification conditions or take the whole responsibility of diversifying. This latter, which is known as delegation can sometimes prove costly for

the owner hence more risky. In this case the manger will have increased risk. So in essence the coleration between risk and diversification lies heavily on the manager. If he follows the owners preferred diversification, then the risk is reduced.

Another relationship that has been compared with diversification is with firms' performance (Marinell 2011). The main question He asks is whether the relationship is causal. He concludes by saying there is a relationship between diversification and performance but it is not causal, it is attributable to factors other than the degree of relatedness among business units and the degree of internal efficiency of the market which has a statistical significance contribution but a marginal explanatory power to explain the persistence of positive and negative return. That is positive relationship between performance and diversification goes beyond the simple explanation of an efficient internal capital market or a certain degree of relatedness among business segments.

In a Kenyan case, Kimeu (2012) evaluates the effects of income diversity to performance of commercial banks. In the study period 2000-2010, he concludes that there are a few benefits expected in income diversification from traditional banking although there was a growing importance of non interest income. He notes that noninterest income is more volatile and with increased volatility, there are fewer benefits from diversification. A higher diversification is associated with low lending rates according to central bank of Kenya, being a benefit to the banks by avoiding over reliance on interest income. Rotich et al (2011) on their case on Kenyan commercial banks find out that there is a linear relationship between diversification and financial performance. In their research of 44 banks in Kenya year 2005-2009

concludes that financial diversification leads to improved performance. Larger banks have a greater ability to expand. They also note that non interest based income has been on the increase. Finally interest and non interest incomes are found to be correlated.

In some studies diversification has proved helpful in times of economic crisis. Kuppuswany and Villalonga (2010) note that diversification increased in the 2007-2009 financial crisis in U.S.A. They note that diversification gave firms both financing and investment advantages. The value of diversified firms increased relative to single segment firms during the same crisis and that the value of diversification has increased beyond the crisis. Another study was done by Herimo and Mekonnen (2012) this time on MFI in Ethiopia for year 2004 to 2009. In this institution, there was no diversification during the year. The MFI was on the increase until 2009 when the effects of economic crisis were experienced. It went to a decline in 2009.

However there have been various studies that have not very much approved the use of diversification for competition. Jensen (1986) one of his conclusions is that diversification programs are more likely to generate losses than takeovers or expansion in the same line of business or liquidated motivated takeovers. This is to mean they are a bit more risky than other forms of dealing with risk.

Product diversification in the financial sector came up as a result of structural forces of change. Gamra and Plihon (2011) results support that this is what led to banks diversifying to new business strategies incase of this forces of change. In a sample of Asian and Latin America countries banking institutions, they note that diversification has more gains that offset the cost of increased exposure to the noninterest income.

They note that there has been that diversion lately and in the firms side it means increased cost. The returns however are able to cover the cost especially during crisis. However the is the probability that there will be diseconomies of scale in some cases of diversification. This occurs due to the poor monitoring, incentives that induce risk of default and decrease return when a bank expands into the industry where it faces lack of skills and expertise. In essence you don't just diverse, proper planning and implementation is necessary.

One interesting field has been diversification in the micro finance sector. This has often been referred to as combined microfinance (CMF). Microfinance refers to loans, savings, insurance, transfer services and other financial products targeted at low-income clients. A combination of this three or any two bring about combined microfinance. Rossel (2008) defines combined microfinance as the delivery of at least two financial product categories. Microfinance thinking has changed from focus on a credit mono product to a full array of financial services and from a target of microenterprises to the broader marketing low income households including both business and family needs (Rhyne and Otero, 2006). The ideal array of services is a basic core package savings, credit, insurance and payments. There are also special financial products for growing microenterprises or agricultural businesses e.g. bill payments, pension which target different segments for the clients (Rhyne and Otero, 2006).

Rossel (2012) on his research on 250 MFI's in Latin America and Caribbean conclude that there is increased efficiency in MFI's after diversifying. This efficiency does not lead to overall sustainability. Since MFI's are aimed at social impact, financial

performance comes second though it is very important for sustainability. This is because most MFI's rely on grants to evade collapse.

While offering loans has been the primary activity of MFI's, there have been several diversifications in it. Dallien et al (2005) discuss on the loan lending has been diversified. Before group lending was the mode of lending that was used by microfinance organisations to do the lending. The screening of the loanee, following up the loanee, monitoring and enforcing of issues lied on the group. This has been diversified by offering loans to individuals. When lending is done to an individual, a lot of responsibility lies on the MFI since the manager and the lending institution are the ones responsible for screening and following up. These loans are tailor made based on specific needs of each applicant.

Another service that has been introduced that is close to loans is leasing. Since MFI target the poor the leasing for small equipment, the difference of leasing and loans is that in leasing, the equipment is given to the client and has to make periodical payments until it is fully paid. Until then the equipment remains the property of the institution. It is usually a contract between the MFI (leaser) and the lessee (the borrower). At the completion of regular payments the ownership of the equipment is transferred to the lessee. This provides an increased customer base for the institution besides the profit gained from this. The main challenge with this is that it is the responsibility of the leaser to ensure that the equipment remains in a good order until all the payments are made hence extra work for the MFI. Also the separation between ownership and usage is an increased in liability and litigation risk (Frankiewicz and Churchill 2011).

Frankiewicz and Churchill (2011) also look at the way MFI's are drifting to offering SME services. They give some guidelines that must be followed. The reason for this up scaling has been the potential demand that has arisen from the SME sector. When the poor are educated and form SME, they are most likely to need financing. Previously approaching commercial banks was hard, although these days they are downscaling to the SME segment. This market segment has been because of potential demand caused by SME's, potential for growth, potential for profit and potential for innovation. However financing SME sometimes can be very risk especially where there have no collateral. For MFI's to diversify to SME's, it means that they have to be prepared to offer business advice hence have to train their staff and acquire new staff with higher knowledge.

Taking deposits has also been one form of diversification in MFI's. This has increased the efficiency of MFI's. The deposits are used for lending reasons hence achieving cost efficiency in their operation (Cambier 2011). This is very key to growth of an MFI. They also help increase the client base and improve borrower's capacity to repay. This has included the savings which can be either compulsory or voluntary. Compulsory are those funds that must be deposited by borrower in order to be eligible for a loan or sometimes to be eligible for membership. Voluntary savings can be regular savings or contractual saving or time deposits. All this will call for management increase in human resource, technology and hence more investment. (Kabir 2002, Frankiewicz and Churchill 2011). Long term saving has also been another form of saving which includes periodical saving for a long time like 10 years. The product must be well designed to fit the customer (Frankiewicz and Churchill

2011). Savings products and technologies must be designed appropriately to respond to the characteristics of different market segment as the motives of each particular saver are very complex and the advantages and disadvantages of several different savings forms are compared in order to define the best savings portfolio mix, savings products and technologies can only be successful when they suit to the needs of the savers (Wisniwski 1998).

Another service that has been has been introduced is the money transfer. In carrying out its social responsibility, an MFI can channel remittances and government transfer payments to the poor households living in isolated areas that are not served by other providers. This was before a reserve of the commercial banks. Some services under this are the money orders, cheques, electronic funds transfer and mobile money transfer. They can offer internal money transfer or partner with other organisations (Frankiewicz and Churchill 2011). Frankiewicz and Churchill (2011) also note that this can take time before they are profitable.

#### 2.4 Summary

There is consensus that non interest diversification is taking place in the MFI's and that there is also growth of noninterest income in financial institution. This has been brought about by need to keep on with competition from others. This diversification in MFI's has often be referred to as combined microfinance. MFI's have a social role in poverty alleviation and to get this they have to remain viable in the long run. this has made them to diversify. The literature reviewed suggests that there is a conflicting agreement on regards to the effect of diversification on performance. However there

are listed benefits of diversification. In this research, I will identify the diversification in the MFI's and also calculate its level and also find out its effect on performance.

#### **CHAPTER THREE**

#### RESEARCH AND METHODOLOGY

#### 3.1 Introduction

The research aimed at identifying the type of diversification services that micro finance institutions offer and how they affect their performance. It tried to explore deeper on the issue of profitability and social action of the microfinance sector. The subsequent sections describe the research design, the population, sample, data collection and analysis.

#### 3.2 Research Design

The research design was informed by the research objectives and the kind of research questions asked. The research objectives were derived for the purpose of research (Saunders et al 2009). The questions were what are the types of diversification of products in an MFI's and what their effects are. The research questions could lead to descriptive and explanatory answer (Saunders, Lewis and Thornhill 2009). The data collected was quantitative data and was from secondary sources. The research strategy was a survey of microfinance institutions on product diversification and performance. So the study focused on registered microfinance institutions. The reason is that this registered MFI's have to produce their financial statements as required by the law. This secondary data was gotten from daily newspapers, websites and from the financial offices.

#### 3.3 Population

The population for this study were all the MFIs in Kenya registered under AMFI in 2012 as Deposit Taking Microfinance institutions. There are fifty non deposit taking

MFI's and eight Deposit taking microfinance. AMFI registers all institutions that offer services of microfinance including commercial banks, insuarance companies, development institutes and large to small MFI's.

## 3.4 Sample

The sample was taken randomly from the population. The target confidence interval was 95%. So the target sample was seven and above DTM. This ensured that data was highly representative of the population.

#### 3.5 Data Collection

Secondary data was used this were the income statement and statement of financial position. A letter of introduction detailing the objectives was used. Further secondary data was used to for quantitative data from financial statements. These were the balance sheet and the statement of income. These helped to get the quantitative data needed for this research. The target period was 2008-2012.

### 3.6 Data Analysis

The data was analysed using the model below. Explanatory data analysis approach was used as explained by Saunders et al (2009). This approach uses diagrams to explore and understand data. This will also be used to present the data. Descriptive statistics were also used to summarise the data. This included use of frequency, percentages or proportions and means. The data from the financial statements was analysed to give performance and diversity.

The procedure employed is built on Stiroh and Rumble (2006). Performance for a financial organisation has the following model.

$$Y_{it} = \alpha + \beta SH_{NET,it} + \delta SH_{NON k, it} + \varepsilon_i$$

Where:

Y- Performance

SH<sub>NET,it</sub> -share of operating income from interest income in total.

 $SH_{NON\;k,\;it}$ - shares of operating income from non interest income in various categories.

 $\varepsilon_i$  are the error components.

Performance measure to be used were Return On Assets (ROA) and Return On Equity

(ROE).

For diversification, the researcher used Herfindahi Hirschmann Index (HHI). This is

also adopted from Stiroh ad Rumble(2006). This was used for all MFI's to account for

diversification between two major types of income generating activities; interest and

non interest income. Since the main business of a microfinance institution is offering

loans, their main source of income is interest. So any other income was classified as

non interest income. The index measures the shift to non interest income in the micro

finance institutions. An increase in the index indicates less diversification while a

decrease in the index indicates increased diversification. In financial statements,

interest income is usually separated from non interest income. The index is calculated

as follows.

 $HHI(inc) = (NoNII/TOI)^2 + (NII/TOI)^2$ 

Where;

TOI(Total operating income )= NNI + NoNII.

NNI – Net Interest income.

NoNNI- Net Non interest income.

To find the effect of diversification on performance correlation between performance

and diversity was calculated.

## **CHAPTER FOUR**

## DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The study findings are presented as an evaluation of the relationship between product diversification and financial performance of Deposit Taking Microfinance Institutions (DTM). The performance of the DTM is measured by Return on Equity and Return on Assets. The data analysis techniques include descriptive statistics, correlation analysis, regression analysis and coefficient of determination.

#### **4.2 Descriptive Statistics**

The researcher used the SPSS to ascertain the descriptive statistics of the collected data by establishing the minimum amount, maximum amount, mean and the standard deviation from the mean.

Table 4.1 Diversification and Financial Performance Indicators for DTM the Period 2008-2012.

Indicator					
	N	Minimum	Maximum	Mean	Std. Deviation
ROE	5	0.0233	0.1187	0.07176	0.0388
ROA	5	0.0067	0.2432	0.13744	0.1018
DIV	5	0.5969	0.7561	0.67004	0.0591
Valid N (listwise)	5				

**Source: CBK (2013)** 

#### 4.2.1 Financial Performance of DTM for the Period 2008 to 2012

The indicators of financial performance namely the ROE and ROA for the period between 2008 and 2012 were presented in a line graph as shown below:

Performance of DTM for the Period 2008 - 2012 0.4 Performance Indicator 0.35 0.3 0.25 0.2 0.15 0.1 0.05 0 2012 2011 2010 2009 2008 ROA 0.0053 0.0067 0.1969 0.2432 0.1874 ROE 0.0573 0.0559 0.0233 0.1187 0.1036

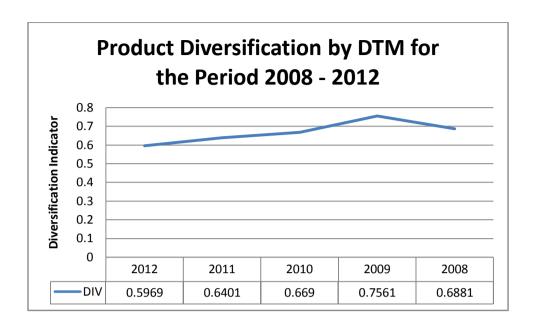
Figure 4.1 Financial Performance of DTM for the Period 2008 - 2012

**Source: CBK (2013)** 

## 4.2.2 Product Diversification by DTM for the Period 2008-2012

The diversification of products offered by DTM for the period between 2008 and 2012 was presented in a line graph as shown below:

Figure 4.2 Diversification Indicator of DTM for the Period 2008 - 2012



Source: YEDF (2013)

## 4.3 Correlation Analysis

The researcher conducted a correlation analysis using the SPSS and came up with correlation coefficients that explained the relationship between the dependent variable (Financial Performance of DTM) and the independent variable (Diversification of Products by DTM)

Table 4.2 Correlation between Diversification and Financial Performance of DTM

Correlations					
		Diversification			
Return on Equity	Pearson Correlation	0.675324211			
	Sig. (2-tailed)	0.21123190			
Return on Assets	Pearson Correlation	0.83233241			
	Sig. (2-tailed)	0.008323443**			
**Correlation is significant at the 0.01 level (2-tailed).					

## Source: Author (2013)

The findings indicated that at the DTMs during the period 2008-2012 both financial performance measures (ROE and ROA) had a positive correlation with the diversification of products by the institutions. ROE had a correlation coefficient of 0.68 (2dp) while ROA had a correlation coefficient of 0.83 (2dp). Notably, ROE did not have a significant correlation with diversification at a level of significance of 0.01. However, ROA had a significant correlation of with diversification of 0.008 at a level of significance of 0.01 for the study period between 2008 - 2012.

#### 4.4 Regression Analysis

In addition to the above analysis, the researcher conducted a multiple regression analysis so as to test relationship among the independent variables. The researcher applied the SPSS to aid in the computation of the measurements of the multiple regressions for the study.

**Table 4.3 Model Summary** 

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.900066731	0.811034129	0.621171641	0.036378987

Source: Author (2013)

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Financial Performance of DTMs) that is explained by the two independent variables (ROE and ROA).

The two independent variables that were studied, explained 62.11% (2dp) of the relationship between financial performance indicators (ROE and ROA) and the diversification of products by DTMs for the period 2008-2012 as represented by the R<sup>2</sup>. This therefore means that there are other factors not studied in this research which contributes 37.89% (2dp) of the relationship between financial performance and diversification of products by DTMs in Kenya. Therefore, further research should be conducted to investigate the other factors affecting 37.89% of the relationship

between financial performance and diversification of products offered by DTMs in Kenya.

**Table 4.4 ANOVA Model** 

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.11	2	0.006	2.514	.001607906
	Residual	0.03	2	0.001		
	Total	0.14	4			

Source: Author (2013)

From the ANOVA Model the analysis of variance and the F statistic (2.514) suggested that the model is fit and it is valid with the existing set of independent variables.

## **4.5** Coefficients of the Independent Variables

Multiple regression analysis was conducted to establish the relationship between the independent variables and the dependent variable and the extent of impact that each of the independent variables had on the overall diversification of products at DTMs in Kenya for the period between 2008 - 2012.

**Table 4.5: Coefficients of Independent Variables** 

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		В	Std. Error	Beta		
1	(Constant)	0.5752	0.0392		14.788	0.193
	ROE	0.5833	0.5227	0.3836	1.116	0.380
	ROA	0.3854	0.1994	0.6641	1.936	0.005**

Source: Author (2013)

In order to determine the relationship between lending rate policy and the three independent variables for the commercial banks, the researcher conducted a multiple regression analysis. As per the SPSS generated table above, the equation:

$$Y_{it} = \alpha + \beta SH_{NET,it} + \delta SH_{NON\,k,\,it} + \epsilon_i$$

Translates to:  $Y_{it} = 0.5752 + 0.5833X1 + 0.3854X2 + 0.0392$ 

Where p is the dependent variable (Diversification of products by DTMs in Kenya),  $X_1$  is the Return On Equity and  $X_2$  is the Return On Assets.

As per the regression equation, if the two independent variables (ROE and ROA) were taken into account and held at zero, the diversification rate for the DTMs will be at 0.5752. The data findings analyzed also showed that if all other independent variables were taken at zero, a unit increase in ROE would lead to 0.5833 unit increase in diversification of products at the DTMs. Further, a unit increase in the ROA would lead to a 0.3854 increase in diversification of products at the DTMs. The results of the test showed that the coefficient estimates of all the independent

variables were positive conveying the message that these two financial performance indicators (ROE and ROA) were affected positively by the increase in the diversification rate of products offered by DTMs in Kenya. From the above analysis of the coefficients, it could also be inferred that the ROA had a significant effect on the diversification of products offered by DTMs at a level of significance of 0.01.

#### 4.6 Discussion of Findings

The findings were discussed and interpreted in relation to established theoretical and empirical frameworks.

The findings indicated that during the period 2008-2012 both financial performance measures (ROE and ROA) had a positive correlation with the diversification of products by DTMs in Kenya. ROE had a correlation coefficient of 0.68 (2dp) while ROA had a correlation coefficient of 0.83 (2dp). Notably, ROE did not have a significant correlation with diversification at a level of significance of 0.01. However, ROA had a significant correlation with diversification at a level of significance of 0.01. Palmer (1998) holds that a new product may be developed as a way of maximizing on the available capacity. Institutions may also develop a new product to balance the existing portfolio, reducing the risk of depending on few products hence reducing risk. The findings of this study also confirm that diversification leads to increased returns for the organizations. However, the findings dispute Turkmen and Yigit (2012) who held that diversification had a negative effect on performance in 40 banks in Turkey.

The results of the test showed that the two financial performance indicators (ROE and ROA) were affected positively by the increase in the diversification rate of products offered by DTMs in Kenya. The findings supported the claims by Rossel (2012) who

concluded that there is increased efficiency in MFI's upon diversifying after conducting a research on 250 MFI's in Latin America and Caribbean. In addition, the findings indicate that the DTMs use diversification as a risk management tool which is also supported by Hermalin and Kutz (2004) who hold that firms undertake a variety of actions to reduce risks through diversification, including entering diverse business lines.

Jensen (1986) holds that diversification programs are more likely to generate losses than takeovers or expansion in the same line of business or liquidated motivated takeovers. In this research, two independent variables (ROE and ROA) explained 62.11% (2dp) of the relationship and this means that there are other factors not studied in this research which contributes 37.89% (2dp) of the relationship between financial performance and diversification of products by DTMs in Kenya. Therefore, there is still need to reaffirm that diversification leads to improved financial performance by conducting further research to close the gap of 37.89% that was unexplained by this study.

#### **CHAPTER FIVE**

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter provides the summary of the findings from chapter four and also gives the conclusions and recommendations of the study based on the objective of the study which were to identify the types of diversification in the Kenyan microfinance market and how they relate to performance and to establish the effect of non interest based diversification on the financial performance of MFI's. It also presents the conclusions based on the findings and the recommendations for policy and practice. It ends with the presentation of the limitations of the study and suggestion for further studies.

#### **5.2 Summary of the Findings**

The findings indicated that at the DTMs during the period 2008-2012 both financial performance measures (ROE and ROA) had a positive correlation with the diversification of products by the institutions. ROE had a correlation coefficient of 0.68 (2dp) while ROA had a correlation coefficient of 0.83 (2dp). Notably, ROE did not have a significant correlation with diversification at a level of significance of 0.01. However, ROA had a significant correlation with diversification at a level of significance of 0.01 for the study period between 2008 - 2012.

The two independent variables that were studied, explained 62.11% (2dp) of the relationship between financial performance indicators (ROE and ROA) and the diversification of products by DTMs for the period 2008-2012 as represented by the R<sup>2</sup>. This therefore means that there are other factors not studied in this research which contributes 37.89% (2dp) of the relationship between financial performance and diversification of products by DTMs in Kenya. Therefore, further research should be

conducted to investigate the other factors affecting 37.89% of the relationship between financial performance and diversification of products offered by DTMs in Kenya.

The results of the test showed that the coefficient estimates of all the independent variables were positive conveying the message that these two financial performance indicators (ROE and ROA) were affected positively by the increase in the diversification rate of products offered by DTMs in Kenya. From the above analysis of the coefficients, it could also be inferred that the ROA had a significant effect on the diversification of products offered by DTMs at a level of significance of 0.01.

From the ANOVA Model the analysis of variance and the F statistic (2.514) suggested that the model is fit and it is valid with the existing set of independent variables.

#### 5.3 Conclusions

The findings indicated that the financial measures under study, ROE and ROA, had a positive correlation with the diversification of products at the DTMs. Therefore, it can be concluded that the more the diversification of products increases the profit potential of DTMs.

The results of the test showed that the coefficient estimates of all the independent variables were positive conveying the message that these two financial performance indicators (ROE and ROA) were affected positively by the increase in the diversification rate of products offered by DTMs in Kenya. Therefore, it can be concluded that diversification of products creates more returns for investors (ROE) and increases effective utilization of assets (ROA).

The regression model explained 62.11% of the effects of diversification on financial performance indicators (ROE and ROA). Therefore it can be concluded that diversification of products is mostly driven by the profit motive of DTMs in Kenya.

From the ANOVA Model the analysis of variance and the F statistic (2.514) suggested that the model is fit and it is valid with the existing set of independent variables.

## 5.4 Recommendations for Policy and Practice

In terms of policy, the researcher recommends that the management of DTMs should institute appropriate internal mechanisms to ensure that there is constant review of existing products, development of new products and overall alignment of all product decisions with the expected earnings and wealth maximization objectives of the organizations.

In practice, the DTMs should come up with different product portfolios, client segments and product managers who will be entrusted with the management of specific product lines. By so doing, the DTMs will ensure maximization of benefits from products and enhance their overall earnings.

#### **5.5 Limitation of the Study**

The study was based on the secondary data mainly collected from audited financial statements and website of CBK and the DTMs for the period between 2008–2012. Therefore, the integrity of the findings was as good as the integrity of the financial statements and the information posted on the websites of the organizations. This implies that if there were any material errors or misrepresentation of facts in the

financial statements or websites, then the findings of this study could also be limited by those errors and misrepresentations. However, the researcher took due care of the collected data and ensured proper storage and analysis which enhanced the integrity of the findings.

The first DTM was in 2009 since the legislation was in 2006. There before they were regular micro finance institutions. This means in the period before there was a limitation of diversifying by the law in the period before 2009. This would be a limitation in the sense that most data was in time of transition. This means that a lot of expenses may have to transition hence affected the profits hence R.O.E and R.O.A.

Most of the DTM are based in Nairobi and some have only branches in Nairobi. These causes a limitation in the fact that the data contains in the secondary data source may not represent the whole country. Hence the results may be biased toward urban population ignoring most the rural population.

#### **5.6 Suggestion for Further Study**

The researcher suggests a similar study be conducted through a survey of all the other MFIs in Kenya. This is because the MFIs are quickly growing their loan portfolios and therefore there is need to find out how the diversification of products relates to the financial performance indicators.

Also, research should be done on why the R.O.E had no significant coleration with diversification at a significant level of 0.01. Do the fact that they also depend on grants affect the effect of R.O.E on diversification.

Through regression analysis, you notice that ROA and ROE variables explain 62.11%(2dp) of the relationship between financial performance indicators and diversification of products by DTM's. Research should be done on the other factors, 37.89%(2dp), of the relationship between financial performance and diversification of products offered by the DTM's in Kenya.

Previously, similar research has been done on commercial financial institutions. This research can be compared with that of microfinance institutions and find out the difference that diversification offers for both sectors.

Finally the researcher suggests that research should be done on the effects of individual diversification product on performance. This would involve an individual classification of income of microfinance. And this would lead to more specific effect of micro finance activities like micro insuarance and others.

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## APPENDIX 1: LIST OF REGISTERED MFI'S IN KENYA

MEMBER NAME	ADDRESS
K-rep Bank Ltd	K-Rep Centre, Wood Avenue
	P.O BOX 25363-00603
	NAIROBI
Equity Bank	Equity Centre, Upperhill
	P.O BOX 75104-00200
	NAIROBI
Co-operative Bank	Co-operative Bank of Kenya Ltd
	Co-operative Hse Building- 4th
	Floor
	P.O BOX 48231-00100,
	NAIROBI
Kenya Post Office Savings Bank	Market Lane Off 17 Banda
	Street, Postbank House
	P.O BOX 30311-00100
	NAIROBI.
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
II DOMAIA	P.O. Box 20833-00100 Nairobi
Uwezo DTM Ltd	Park Plaza, Ground Floor,
	Moktah Daddah Street
	P.O. Box 1654-00100 GPO Nairobi
Contury DTM Ltd	New Pumwani Road
Century DTM Ltd	K K Plaza, Gikomba
Sumac Credit DTM Ltd	Consolidated Bank Building,
Sumac Credit DTM Ltd	Koinange Street, 2nd Floor
	P.O. Box 11687-00100
	Nairobi
Blue Limited	Chester House-Koinange Street
Dide Difficed	P.O BOX 27749-00100
	NAIROBI
K-rep Development Agency	K-Rep Development Agency
Trop Development rigority	Ltd K-Rep Centre 7th Flr.
	Wood Av. Kilimani
	P.O. Box Box 10528 – 00100,
	Nairobi.
	TIME OUT.

Eclof Kenya	Chiromo, Royal Offices,
Letor Ronyu	Mogotio Road
	P.O BOX 34889 NAIROBI
	Email: info@eclof-kenya.org
KADET	Capital Hill, Cathedral Road
MDLI	Community
	P.O BOX 1676-00200
	NAIROBI
BIMAS	Bimas Complex
	P.O BOX 2299 EMBU
SISDO	Ngong Road, Ngong lane
	P.O BOX 76622-00508
	NAIROBI
Micro Africa Ltd	P.O BOX 52926 NAIROBI
Opportunity Kenya	Geomaps Centre-Matumbata rd
Opportunity Kenyu	Upper Hill
	P.O BOX 19497-00202 Nairobi
Yehu Microfinance Trust	Buxton, Tom Mboya Street
Tena Wieronnance Trust	P.O BOX 82120 NAIROBI
Fusion Capital Ltd	ACK Garden house, Wing A,
Tusion Capital Liu	Ground Floor, 1st Ngong
	Avenue, Community next to
	ardhi house.
Canyon Rural Credit Ltd	Studio Hse,3rd floor
Canyon Kurai Cicun Liu	P.O. box 46532-00100 Nairobi.
One Africa Capital Ltd	Koinange Street-Ratansi
One Africa Capital Ltu	Educational Trust Building, 2nd
	Floor
	P.O. Box 74093-00200
	oneafrica.microfin@yahoo.co.uk
Jitegemea Credit Scheme	Jogoo Road, KCB building
sucgement credit seneme	P.O BOX 46514. NAIROBI
	jitegemea@wananchi.com
AAR Credit Services	Methodist Ministries Centre, 1st
THE CICUIT SOLVICOS	Floor
	Oloitokitok Road
Agakhan Foundation	Mpaka plaza, Westlands 3rd
Microcredit Programme	floor
1.111.0010011 10Biumino	P.O BOX 13149-00100,
	NAIROBI
ADOK TIMO	Sifa House, Ground Floor,
	Mission Rd.
	Off Kakamega Rd. Opposite
	Kibuye Market. KISUMU.
Pamoja Women Development Programme	Kikinga House, Kiambu Town
Tamoja women Development Hogianine	P.O. Box 2472 – 00100
	Nairobi.
	E-mail: info@pawdep.org
	2 maii. mio e parracp.org

Juhudi Kilimo Co.Ltd	Mucai Road, Ngong Road
Junuai Kiiiiio Co.Lta	P.O. Box 10528-00100
	Nairobi
M 'TZ T 1	E-mail: nat@juhudikilimo.com
Musoni Kenya Ltd	Cape Office Park
	Along Ring Road Kilimani,
	Opposite Yaya Centre
	P.O. Box 25351-00100
	Nairobi.
Molyn Credit Ltd	Bruce House 9th Floor Standard
	Street
	P.O. Box 10144-00100 Nairobi
	Email: info@molyn.co.ke
Renewable Energy Technology Assistance	Waumini Hse, Westlands 1st
Programme(RETAP)	Floor
	P.O. Box 28201-00200 Nairobi
	E-mail: info@retap-africa.org
Rupia Ltd	View Park Towers, 10th Floor
Trup in Dia	P.O. Box 2987-00200 Nairobi
	Tel: 2251389
	Email: info@rupialtd.com
Taifa Options Microfinance	Finance House, Kenyatta
Tana Options witerormance	
	Highway
	P.O. Box 727, Ruiru
T10 T 1 6'	E-mail: taifaoption@yahoo.com
U&I Microfinance Ltd	1st Floor,
	Asili Complex
	River Road/Latema Road
	Junction
	Opposite Kampala Coach
	E-mail: info@uni-
	microfinance.co.ke
Select Management Services Ltd	Kenya Re towers, off Ragati
	Road
	P.O. Box 27639,00506
	Nairobi.
Greenland Fedha Ltd	KTDA, KTDA farmers building
	P.O. Box 30213-00100
	Nairobi.
Youth Initiatives – Kenya (YIKE)	Kariobangi North, Sanoda Hse,
, , , , , , , , , , , , , , , , , , ,	2nd Flr
	P.O. Box 50622-00200, City
	Square, Nairobi
Biashara Factors	Finance House, 11th Floor,
Distributed in the control of the co	Loita Street
	P.O. Box 66065-00800 Nairobi
Platinum Credit Limited	
r aumum Creun Ellinted	2nd floor, union towers, moi
	avenue
	P.O. Box 73304-00200 Nairobi
	info@platinumcredit.co.ke

Ngao Credit Ltd	2nd Floor NHIF Bldg.
Tiguo Cibali Eta	Community
	P.O. Box 60776-00200 Nairobi
	Email: info@ngaocredit.com
Indo Africa Finance	Museum Hill Centre 3rd Floor,
muo Amea rimanee	Museum Hill Road
	P.O. Box 39435-00623 Nairobi
	– Kenya Email:
	info@indoafricafinance.co.ke
Carrier shound Comital	
Springboard Capital	Kensia House along Muranga
	road, Opposite Kobil Petrol
	Station 1st Floor, suite no.12
No. 10 A A A A A A A A A A A A A A A A A A	P.O. Box 23720-00100, Nairobi.
Mini Savings & Loans Ltd	Highway Building, Githunguri
	Town (Near Githunguri Post
	Office)
	P.O. Box 874-00216,
	Githunguri, Kiambu
	Email: minisaving@yahoo.com
KEEF-Kenya Entrepreneurship Empowerment	Mapa House 3rd Floor Kiambu
Foundation	Road
	P.O. Box 648 Kiambu
Women Enterprise Solutions	Development House, Moi
	Avenue
	P.O. Box 4083-00200
	Nairobi.
	info@wesokenya.com
Focus Capital Limited	Donholm Mina Centre
1	P.O. Box 2406-00202
	Nairobi.
	aligeproperty@rocketmail.com
Samchi Credit Limited	Parklands Plaza
Same in Creat Emitted	P.O. Box 16982-00620
	Nairobi.
	info@samchicredit.co.ke
Fountain Credit Services Ltd	Ngong Road, near Kobil Petrol
Pountain Credit Services Liu	Station
	P.O. Box 72367-00200 Nairobi.
CIC Insurance	
CIC HISUITATICE	CIC Plaza, Mara Road
	P.O Box 59485-00200, NAIROBI.
Chartie ingurence	
Chartis insurance	Chartis Haves, Edge Square
	Chartis House, Eden Square
	Complex, Chiromo Road
	P.O Box 49460-00100,
	Nairobi.
	www.chartisinsurance.com

Microensure Advisory Services	Hughes building, Kenyatta
	avenue, 8th floor
	P.O. Box 13383-00100, Nairobi.
Jitegemee Trust	K-Rep Centre, Wood Avenue
	P.O BOX 21768-00505
	NAIROBI
OIKOCREDIT	Methodist Ministries Centre,
	Olitokitok road
	2nd Floor
	P.O BOX 67181 NAIROBI
MESPT	2nd flr vision towers muthithi
	rd, westland
	P.O. Box 187 Sarit Centre
	00606 Nairobi
	info@mespt.org
Women Enterprise Fund	NSSF Building, Eastern Wing,
	Block A, 14th Floor
	P.O. Box 17126-00100 Nairobi
	wefsecretariat@yahoo.com
Unaitas Sacco Society ltd. formerely	Muramati Building, hospital
Muramati Sacco Society Ltd	road, Muranga
	P.O. Box 1145-10200, Muranga.
Swiss Contact	Westlands, Vanguard House, 6th
	Floor,
	P.O Box 47996,00100,
	Nairobi.
	info@swisscontact.co.ke
	www.swisscontact.co.ke

# APPENDIX II: DTM INDICATORS FOR DTM FOR THE PERIOD BETWEEN 2008 – 2012

SMEP						SUM
ROE	0.0856	0.1009	0.1746	0.2474	0.0565	0.6649
ROA	0.0232	0.0130	0.7064	0.8229	0.6041	2.1695
DIV	0.6453	0.5898	0.6532	0.8229	0.6041	3.3153
FAULU						
ROE	0.0770	0.0037	-0.2314	-0.0754	0.0221	-0.2040
ROA	0.0076	0.0004	-0.0279	-0.0114	0.0031	-0.0282
DIV	0.5487	0.6453	0.5963	0.7095	0.6350	3.1348
KWFT						
ROE	0.0746	0.1571	0.1982	0.2474	0.2835	0.9609
ROA	0.0085	0.0178	0.0170	0.0459	0.0536	0.1427
DIV	0.6392	0.7306	0.8053	0.8229	0.8765	3.8745
REMU						
ROE	-0.0729	-0.1320	-0.1199	-0.0079	0.0007	-0.3320
					-	
ROA	-0.0413	-0.0157	-0.0124	-0.0122	0.0101	-0.0916
DIV	0.5119	0.5489	0.5732	0.5824	0.5857	2.8020
RAFIKI						
ROE	0.0856	0.1009	0.1746	0.2474	0.0565	0.6649
ROA	0.0232	0.0130	0.7064	0.8229	0.6041	2.1695
DIV	0.6453	0.5898	0.6532	0.8229	0.6041	3.3153
CENTURY						
ROE	0.0770	0.0037	-0.2314	-0.0754	0.0221	-0.2040
ROA	0.0076	0.0004	-0.0279	-0.0114	0.0031	-0.0282
DIV	0.5487	0.6453	0.5963	0.7095	0.6350	3.1348
SUMAC						
ROE	0.0746	0.1571	0.1982	0.2474	0.2835	0.9609
ROA	0.0085	0.0178	0.0170	0.0459	0.0536	0.1427
DIV	0.6392	0.7306	0.8053	0.8229	0.8765	3.8745
AVERAGE						
ROE	0.0573	0.0559	0.0233	0.1187	0.1036	0.3588
ROA	0.0053	0.0067	0.1969	0.2432	0.1874	0.6395
DIV	0.5969	0.6401	0.6690	0.7561	0.6881	3.3502

**Source: CBK (2013)** 

## APPENDIX III: AVERAGE DTM INDICATORS FOR DTM FOR THE PERIOD BETWEEN 2008 – 2012

	2012	2011	2010	2009	2008
ROE	0.0573	0.0559	0.0233	0.1187	0.1036
ROA	0.0053	0.0067	0.1969	0.2432	0.1874
DIV	0.5969	0.6401	0.6690	0.7561	0.6881

**Source: CBK (2013)** 

## **APPENDIX 4**

## **RAW REGRESSION ANNALYSIS**

Model Summary

Model R R Square Adjusted R Std. Error

Square of the

Estimate

1 .900 .811 .621 .0363789

a Predictors: (Constant), ROA, ROE

**ANOVA** 

10 17 1						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regressio n	.011	2	.006	2.514	.001
	Residual	.003	2	.001		
	Total	.014	4			

a Predictors: (Constant), ROA, ROE

b Dependent Variable: DIV