THE RELATIONSHIP BETWEEN PRODUCT DIVERSIFICATION AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA.

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2016

DECLARATION

This research project is my original work and has not been presented for an academic examination.

Signature: …………………………………… Date: ……………………………………

Amon Kibathi Kariuki
D61/72924/2012

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

Signature: -- **Date**…………………………

Mr. Mwachiti Mohamed

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DEDICATION

This research work is dedicated to my caring family for the support and patience during the entire period of my study and also for their encouraging words and continued prayers towards the successful completion of this course. Thank you and God bless you.

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LIST OF ABBREVIATION

AMFI	Association of micro finance Institutions
CBK	Central Bank of Kenya
CBR	Central Bank Rate
DTM	Deposit taking Microfinance
HHI	Herfindahl-Hirschman Index
KBRR	Kenya Banks' Reference Rate
KWFT	Kenya women micro finance
MFI	Microfinance Institutions
RBV	Resource Based View
ROA	Return on Assets
ROE	Return on Equity
SMEP	Small micro enterprise program
SMEs	Small and Medium Sized Enterprise
ATM	Automated teller machine

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ABSTRACT

The objective of the study was to determine the relationship between product diversification and financial performance of deposit taking Microfinance institutions in Kenya. The study was done through the sample of the 9 microfinance institutions that had been registered by Central Bank of Kenya before the end of financial year 2012 and have constrantly existed between 2012 nad 2015. The data collected was cleaned before uploading to the Statistical Package for Social Sciences (SPSS) for the purpose of analysis. The data was analyzed using data analysis techniques which included descriptive statistics like the standard deviation, mean, minimum and maximum. In addition, inferential statistics like regression analysis were also used to establish the relationships between the dependent and independent variables.

The Herfindahl-Hirschman Index (HHI) was used and analyzed using a Regression model whose results showed that, microfinance institutions are moderately diversified with mean diversification index (HHI=0.17). The study recommended that microfinance institutions should extend their product mixes to increase the performance through combination of non interest activities and innovative customer focused products that ride on existing technology.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Microfinance related services contribute in playing a very important role in the growth of Kenyans economy and financial system of any nation. While several studies have been done to address different issues relating to relationship between product diversification and profitability of commercial banks, limited study has been done on the relationship between product diversification and financial performance of microfinance institutions in 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 (Kimaru, 2011).

With introduction of KBRR from CBK requiring all microfinance institutions to disclose the lending rate and its composition to the clients and with the new enacted Banking (amendment) bill, 2015 regulated financial institutions to set a maximum interest rate to be charged for all credit facilities in Kenya at a maximum of 4% above the base rate which is the rate set by monetary policy committee and published by Central Bank of Kenya, microfinance institutions will require to diversify the source of income from the

main interest source. This is by introducing other non funded sources of income through diversified products.

1.1.1 Product Diversification

Diversification is an investment principle that can be used to mitigate risk by spreading money among different investments for an institution. It is also a form of business development strategy in which an institution can diversify their product range by either of the following; modifying the current existing products, introducing a new product or adding new product to the existing product range. In this study, we will focus on product diversification from three perspectives which are linked, unrelated and related product diversification. From un-related diversification we have characteristics which are common and generally limited to finance and business management while related diversification presents additional synergy which includes expertise in marketing and distribution, technology know how and facilities in production. On the other hand, linked diversification, entails moving into new business line and operating at different centers of concern in the specific business lines. However, there exists the kind of a chain (integration) among various businesses (Galbraith, 2008).

The microfinance industry has come a long way since the days when MFIs proposed a single product – microcredit – to a single client base - micro-entrepreneurs. Today, MFIs are capable of delivering financial products which are more elaborate and which provide a better response to the needs of their different client segments. Developing and offering new products enables MFIs to serve a larger number of clients and therefore puts them in a better position to fulfill their social mission to provide services to populations excluded

from conventional financial services. The new products bring in other income sources which, in turn, help to boost the financial sustainability of MFIs (Natalie and Patrice, 2004).

1.1.2 Financial performance

Financial performance is used assess the soundness of the strategies used by a firm to generate and grow the worth for its owners. This can be evaluated by use of a range of financial measures which includes ROE (Return On Equity), profit after tax, ROA (Return on Assets), EPS (Earnings per Share) or any generally accepted market value ratio (Pandey, 1985). According to Michael, Alan Miller and Craig (2001), managers in financial institutions are faced by three critical issues regarding financial performance measures. These critical issues include the size of the firm, profitability and growth of the firm over the specific time period. As a result, financial performance measures that assess size of the institution, organization growth rates and profitability are key elements that assist to monitor the progress and overall financial performance.

Several methodologies can be used to measure the financial performance of financial institutions. This may include benchmarking with other firms in the industry, analysis of financial ratios, evaluating performance against the organizational budget or a mix of the three methodologies. The financial records of a financial institution contain a number of financial ratios intended to give an indication on how an institution is performing (Oye, 2006). Financial position and organization structure of a certain firm are mostly the origin of financial performance of the firm. This information is used as a yard stick to evaluate and monitor performance and is derived from the financial statement. Comprehensive financial plans can be drafted from financial statements to assist the

business team maximize share holders value and mitigate possible risks that may be existing in a firm. Financial Statements are relied on to gauge/evaluate the financial position and performance of a firm. These financial statements are prepared and produced by management for external stakeholders who includes shareholders, government agencies and lenders (Rahaman, 2010). In this project, the researcher used the return on asset (ROA) as the measure of financial performance because it explicitly shows how the institution has utilized the existing assets to support business activities.

1.1.3 Relationship between Product Diversification and Financial Performance.

Diversity of products can bring both positive and negative effects to an MFI's performance. The positive effects arise from the increase in client satisfaction and loyalty that will be translated into the increase in word of mouth promotion by clients and loans-savings clients' transactions quality. In addition, the more varied products provided by the microfinance institutions enable them to diversify their sources and use of funding, and hence increase the effectiveness of their MFI's risk management. Those effects jointly generate an increase in the outreach and financial performance of MFIs. The negative impacts arise from the financial and reputation loss risks, staff performance decreases because of over capacity, product cannibalization or exclusion of the poor because of the inappropriate design that potentially exists when a new product is launched (Frankiewicz & Churchil, 2011).

According to Moon (2009), diversification in financial institutions can also assist the institution to improve efficiency in cost management through lower risk through

diversification, and also mitigate against the minimum risk premiums required on the existing un-insured debt and other dependent claims which includes derivative contracts. Hughes and Mester, 2008 also noted that, use of the rewards gained from diversification to venture into higher risk investments may assist the firm maximize the average revenue.

1.1.4 Microfinance Institutions in Kenya

Microfinance institutions can be classified into two categories according to CBK classification. This includes: nationwide microfinance institutions and community-based microfinance institutions. These microfinance institutions have played a major role in growing access to financial services or financial inclusion throughout the country. A nationwide microfinance institution is an institution licensed to carry out deposit-taking microfinance business in any part of Kenya while a community microfinance institution is restricted to carrying-out deposit-taking microfinance business within one Government Administrative District, Division or any other specified region as the Central Bank may deem appropriate (CBK Annual report 2015).

Microfinance business involves giving out a collection financial related services to the general public usually on a small scale. These services include transfer of money to other clients, Accounts deposits, bill payment services, loan disbursements and insurance related products to low income earners and their enterprises (Mngolia, 2009). In a quarterly report by CBK (March 2016), The total Non-Performing Loan portfolio (NPLs) increased by 15.8 percent from KSh 147.3 billion in December 2015 to KSh 170.6 billion in March 2016. It also noted that, the sector that recorded highest increase in NPLs in the quarter was Real estate which is as a result of slow uptake of housing units.

Personal/household sector registered NPLs increase of KSh 5.77 billion or 21.5 percent between the financial period December 2015 and March 2016 which was due to the consequences of negative macroeconomic drivers which includes delayed salaries and job losses.

Microfinance institutions source of income can be divided in two major streams namely funded and non-funded income. Previously, much of attention has focused on lending activities that generate interest income and this is due to the connection of this conventional activity to bank performance (Kenya Bankers Association, 2012). To avoid high unpredictability in reported profits, Microfinance Institutions need to redeploy their resources and engage in non-funded products. This will in turn reduce pressure on lending rates as Microfinance institutions will not be forced to review lending rates to improve their financial performance.

1.2 Research Problem.

During the last few years, Product diversification that involves use of new technology, venture into new markets, flow of information and new innovations have experienced an exceptional growth and development and it is being regarded a key/major channel for social as well as economic development in various countries (Otieno and Moronge, 2014). Several studies have been conducted on issues related to product diversification and financial performance of corporate institutions. Chang and Elyasiani (2008) looked at Product diversification and performance in the financial industry in USA and argued that, banks expansion into non interest activities can improve risk adjusted performance. Stephanus and Wihana (2015) evaluated the relationship between productivity and

performance where they saw significant direct relationship between the levels of saving–loan product diversity and outreach performance indicators, both for scale and depth of outreach.

Here in Kenya, the research has been done by Kimeu (2012), who argued that there are a few benefits that accrue from income diversification from the conventional banking although there was a rising significance of non interest income. Maina (2013) and Rotich, Ochieng & Away (2011) also evaluated the relationship between product diversification and financial performance of commercial banks in Kenya.

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. At the same time there has been recent focus in the interest rates in the Kenyan market with the new Banking amendment bill 2015 to regulate interest rate 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.

Few researchers have conducted studies to assess how product diversification strategies as employed by commercial banks relate to performance. However, to the best understanding of the researcher, there is no recognized previous study that has been done on the relationship between product diversification and financial performance of Microfinance Institutions in Kenya. This study therefore attempt to respond the following subject matter: What is the relationship between product diversification and financial performance of deposit taking Microfinance institutions in Kenya?

1.3 Objective of the Study

To determine the relationship between product diversification and financial performance of deposit taking Microfinance institutions in Kenya.

Value of the Study

The study will be important to the following groups,

Researchers and academicians

The study will assist learning institutions in providing reference and literature to future researchers seeking to carry out further research in this field or in a related area. This will aid in development of knowledge in this line of study. Since this study may leave some gaps and certain areas not exhaustively covered, future researchers will have a starting and reference point from which to start and study further both locally and internationally.

Microfinance Institutions

The research will provide adequate information to the management in the microfinance sector in Kenya and will enable them to indentify whether their efforts towards product diversification is adding value to achieving their strategic goals. This will help the managers achieve a competitive edge in the market.

Investors

The investors and prospective investors in the microfinance sector will get adequate information on product diversification and how it affects financial performance of the institution. This will guide the investors and prospective investors on their investment decisions

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a detailed theoretical framework based on diversification of products, then goes forward to look at the empirical evidence in product diversification in microfinance sector. It focuses on theoretical foundation, empirical review of literature, microfinance services, product diversification and summary of literature review.

2.2 Theoretical Review

This study is informed by three theories namely Agency Theory, Resource, Market Based View and Market Power theory. These theories provide theoretical evidence on the relationship between product diversification and financial performance of deposit taking microfinance institutions.

2.2.1 Resource Based View Theory

According to Wernerfelt (1984), Resource Based View is based on the assumption that firms undertake deliberate managerial efforts steered towards attaining a sustainable competitive advantage. The approach analyses firms as a collection and sets of resource. According to this theory, ability of the firm also allows some institutions to increase the worth in the customer value chain, expand in new markets or develop new products. The resource based view relies on the capabilities and resources that exist in the firm in order to build up a competitive advantage that is sustainable. However, all the resources in an

institution may not be strategic and thus the source of competitive advantage. Competitive advantage in an institution occurs only when there is a state of resource immobility and resource heterogeneity. This theory takes into consideration firm-specific perspective on why they succeed or fail in the market place and this is commonly referred to as an ‘inside-out view’. (Pankaj Madhani, 2010). The Resource Based predicts a positive impact of diversification on a firm’s financial performance.

2.2.2 Market Based View

Barney (2002) explains diversification as one of the strategy to overcome the competition in the market. Companies can build market power by diversifying their products in the market. Market-based view is an approach which explains that companies diversify with motivation to build financial strength, overcome the competition complexity, and cost efficiency. The theory shows the external industry composition and the strategic behavior of competitors within the industry which explains a firm’s performance. According to this market based view also referred to as the “outside-in perspective”, the performance of an institution and its competitive advantage can also be fundamentally linked to the existing structure of its industry, for example, barriers to new entrance may exist in an industry to put off additional competitors and protect the high profit margins. The corporate environment in Kenya is full of competition and thus institutions should indentify their competitive advantage to survive in the market.

2.2.3 Agency Theory

According to Chepkorom (2013), Agency theory looks at the challenges that arise due to different understanding of the goals or desires between the principal (shareholders) and the agent (management). The condition may come about due to the fact that the principal isn't informed of the proceedings of the agent or is restricted by the available resources from getting the information required. Management may have a desire to grow the business by penetrating into other markets. This could mean sacrifice to the short-term profitability of the company for potential growth and higher expected earnings in the future. However, shareholders that desire high return on capital may be unaware of these strategies.

Managers who are risk averse 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 maximizing the expected level of returns, the riskiness of returns and the in formativeness of returns as a signal of managerial effort ability. This brings out the agency conflict. (Hermalin and Katz, 2000). Managers are tasked with the responsibility of improving the financial performance of MFIs and at the same time increase access. This creates an agency problem. This research seeks to show how managers of MFIs are able to solve this problem, improve financial performance and at the same time increase access through product diversification.

2.2.4 Market Power Theory

According to Barney, (1991) diversification is one of the strategies that organizations use to build market power granting them access to conglomerate powers. By entering other markets through diversification, firms enjoy competitive power in the market not because of their particular position in that market but because of their positions in other markets. A firm with conglomerate market powers can give product discounts, cross subsidies and practicing reciprocal purchasing and selling as tools to put off prospective competitors intending to enter in the industry which helps them to control market prices. Such firms are able to overcome competition thereby earning profits above the average market profits (Palich, Cardinal, and Miller, 2000). Therefore market power theory prescribes diversification as a tool for enhancing the financial performance or profitability of a firm.

2.3 Empirical Review.

Generally, financial institutions have two major sources of revenue streams which include interest driven income and non-interest based income. From the previous academics, a lot of attention has focused on lending activities that generate interest income owing to the link of this conventional activity to performance of banks and microfinance institutions (Kenya Bankers Association, 2012). According to Kenya Bankers Association, 2012, Banks in Kenya are viewed to over-emphasize this source of income, but it is responsive to fluctuation in the CBR which is one of an exogenous factor for financial institutions. To avoid high instability in reported profits, a financial institution needs to change refocus and engage in the available non-interest activities or products. This will assist the firm to ease pressure on lending rates as financial

institutions don't have to increase the lending rates to maximize profits, assuming that there is scale for cross-subsidy amongst the two sources of income.

According to Chang and Elyasiani (2008) when they looked at Product diversification and performance in the financial industry. When looking at Financial Holding Company expansion into insurance activities and the effect on performance of 510 Financial holding companies in USA using quaternary panel observations of year 2003-2005. They concluded that, banks expansion into non interest activities can improve risk adjusted performance. Insurance 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.

According to Lepetit, Nys, Rous, and Tarazi (2007) when they evaluated the implication of risk and the development towards stronger product diversification in the European banking industry concluded that institutions which have ventured into non-interest sources revenue are considered to be more risky as compared to financial institutions which primarily carry out conventional intermediation activities. Further investigations revealed that risk is primarily positively correlated with the portion of fee driven activities which was not seen in activities related to trading. The study points out that, institutions are using related product diversification as one of the balanced way to mitigate risk and leverage on synergy. Concentric diversification strategy entails the addition of a business or products that are linked to the firm in terms of markets, technology or products. With this strategy of diversification, the new line of businesses indentified is more linked with the existing business, thus the acquiring institution needs to search for new businesses with channels of distribution, products, technologies,

resource requirements and familiar markets that are not identical, not filly interdependent and synergistic. This diversification mode therefore involves looking for new products that gives an institution marketing or technological synergies with product lines currently being offered, even though the products offered by the firm gain traction to a different group of customers (Wambua 2014).

According to Stephanus and Wihana (2015), when they evaluated the relationship between productivity and performance in the operation of the CUs and BUKPs in Yogyakarta Special Province, they indentified the existence of a significant direct relationship between the levels of saving–loan product diversity and outreach performance indicators, both for scale and depth of outreach.

According to Maina (2013) when she evaluated the relationship between product diversification and financial performance of commercial banks in Kenya, In her study of the 43 registered and operational commercial banks in Kenya as per the CBK records for the period of study in year 2008-2012, she concluded that by using financial performance measures which included (NOI, ROE, ROA, and EBIT) revealed positive linear relationship with the level of product diversification. She recommended that, banks should extend their product mixes to increase profitability through combination of traditional intermediation activities and non interest activities and the need to strengthen bank product diversification policy through effective and efficient regulation and supervisory framework.

According to Kimeu (2012) when he evaluated the effects of income diversity to performance of commercial banks in the period 2000-2010, he concludes that there are a few benefits expected in income diversification from conventional banking activities

although there was a growing importance of non interest sauces of revenue. He notes that noninterest income is more volatile and with increased volatility, there are fewer benefits from diversification. A higher diversification is mostly related to low lending rates according to central bank of Kenya, being a benefit to the banks by avoiding over reliance on interest income.

Rotich, Ochieng & Away (2011) on their research to find out the relationship between diversification and financial performance on Kenyan commercial banks in their research of 44 banks in Kenya year 2005-2009 concludes that, financial diversification leads to improved performance with larger institutions having a greater ability to expand. They also noted an increase on non interest based source of reveue. Finally interest and non interest incomes were found to be correlated.

According to Wambua (2014) in his study on the influence of product diversification strategies on the performance of commercial banks in Kenya, he argued that multinational corporations prefer related diversification strategy because it assist subsidiaries to export their products to other international markets by relying on their foreign parents' allocation channels and universal networks. It also helps local institutions to improve their managerial expertise and technological skills. This organizational effect helps to reduce transaction costs and operational doubt, and is thus beneficial to performance of the subsidiary. He concluded that, commercial banks always adopt related product diversification strategies which assist them to achieve a high level of compatibility with the existing organisation structures and platforms and thus leverage on operational efficiency and synergy. From the study, the diversification strategies adopted

by the commercial banks have been noted to have a positive relationship with performance.

2.4 Determinants of Financial Performance.

Performance of an institution is of critical significance to stakeholders of the firm and the whole economy. The investors of the firm will be more interested with the return they get on their investments, and a sound performing business will accrue increased and long-term returns to the investors. Additionally, profitability of an institution will improve the income of its workforce, sustain quality products for its clients, and run a production units in a better and friendly environment. Also, increased profits may be channeled to more investments in future, which will intern generate more employment opportunities in the country and enhance the sources of income in the economy (Sidra and Attiya, 2013). The following are determinants of financial performance,

2.4.1 Corporate governance

According to Sidra and Attiya (2013), corporate governance entails coordinated rules, practices and processes through which an institution is directed and controlled. It basically involves taking into consideration the interests of the various stakeholders in a firm who includes the financiers, management, shareholders, customers, suppliers, , government and the community. Corporate governance practices are the business structures and behaviors that guide a business entity on how to set its objectives, develop strategies, manage risks, monitor and report its performance.

2.4.2 Economic condition

According to Ntim (2009), the economic condition of a country is one of the factors that affect performance of an institution on numerous fronts. High cost of borrowings can have a negative influence on the capability of an institution to generate capital and invest in other projects.

2.4.3 Ownership structure

According to Sidra and Attiya (2013), the ownership structure of an institution significantly impact on the financial performance of the firm. According to agency theory, having an employee's share ownership plan improves managers commitment to maximize the value to shareholder through improved return on equity.

2.4.4 Capital structure

According to Maina (2013), capital structure is not one of the relevant factors when evaluating company performance. He argued that, when considering a perfectly competitive market, performance is only affected by real factors. Other studies in the recent past disagree with his school of thought arguing that, capital structure is one of the factors that plays an important role in influencing corporate performance. High leverage level will also increases the risk of bankruptcy in organizations. Company's total assets are also considered to positively influence financial performance in a company with higher assets value meaning a reduced amount of risk.

2.4.5 Risk management

According to Sidra and Attiya (2013), risk management in a company is one of the factor that influence its performance. Risky businesses tend to only attract investors who are ready to accommodate that level of risk. The relationship between the risks exposed and returns accrued have to be monitored to give the investors the equivalent return that is commensurate to the level of risk they willing to bear. Taking a higher risk is essential factor to economic reward but the challenge is to identify which risks differentially affects business outcomes and transform how the specific risks are mitigated to protect the business in the best way, improve performance level and drive creation of the firms value.

2.4.6 Firm characteristics and policies

According to (Dragnić, 2013) financial performance in an institution can be determined by either internal or external factors. Internal factors are specific to a certain firm while external factors are unique in a certain specific industry and macroeconomic determinants. Internal environmental factors occur within an organization which includes the size of business entity, technology, organization stage in the life cycle, innovation in the product, organizational features of independence, centralization of operations, market roles, and type or importance of organization goals. External factors on the other hand are dealings that occur outside the operations of an organization. This factors are harder to forecast and control. These factors include general state of the customer type, sector and the whole economy at large.

Certain characteristics of a firm are linked with improved performance of a firm. These characteristics include firm's size, Organization growth rate, dividend policy, liquidity and sales. The firm that enjoys a higher rate of growth can afford to invest on better equipments which will in turn increase the future value of the business. Large institutions can afford to attract and retain good managers and staffs who in turn bosost the performance of the company.

2.5 Conceptual framework.

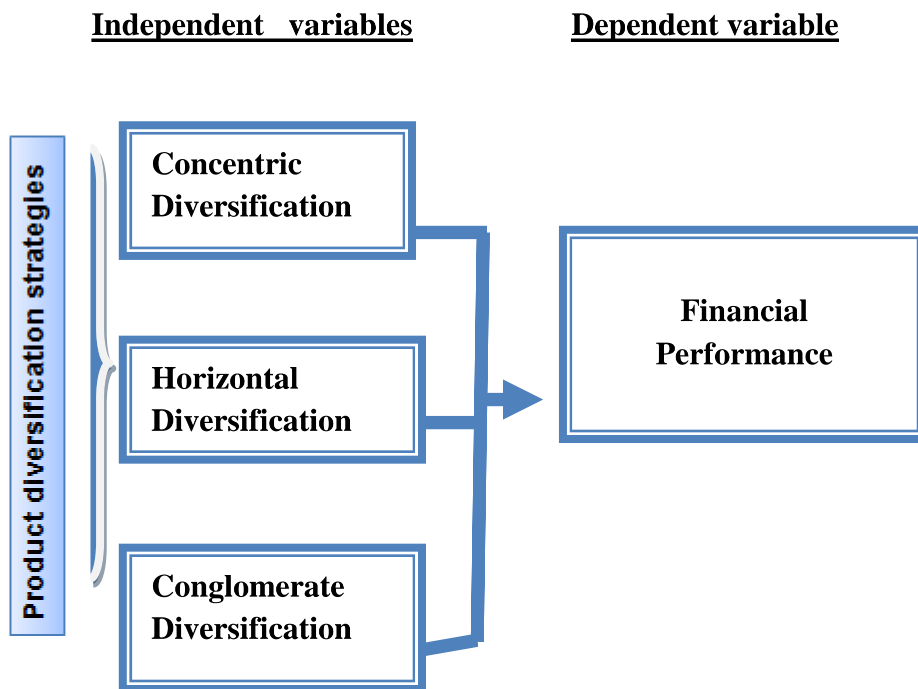
A conceptual framework figure shows the link that exists between the dependent and independent variable. As per this study the dependent variable is financial performance of microfinance institutions as measured by Return on Asset while the independent variables are the different product diversification strategies (Concentric, Horizontal and Conglomerate Diversification). Return on asset was used as a measure of financial performance since it accommodates the assets employed to support business activities and the data is easily available in the secondary data sources.

Lepetit, Nys, Rous, and Tarazi (2007), suggests that the ideal concentric diversification is experienced when the company profits improves strengths and opportunities in an institution, as well as reduce weaknesses and risk exposure. Product diversification may also take the form of unrelated (conglomerate) diversification which is the venture into markets that have no observable link to any of a company's value chain activities in the present industry.

According to Wambua (2014), diversification can be in the form of related diversification which entails corporate development outside the existing markets and products range but

within the current capabilities of the firm. This can either take vertical or horizontal integration (concentric strategy). Diversification can also be achieved through unrelated diversification (conglomerate strategy) which entails development of products and services beyond the present capabilities and value network. Previous studies (Wambua (2014), Lepetit, Nys, Rous, and Tarazi (2007) and Rotich, Ochieng & Away, (2011) have noted a linear relationship involving product diversification and financial performance. This has been shown in the figure below.

Figure 2.1 product diversification strategies and financial performance.



Source: Author (2016)

2.6 Summary of the Literature Review.

As per the literature review from this study, there is conflicting concurrence on relationship between product diversification and financial performance. The theories of microfinance reveal different theoretical arguments on positive impacts of product diversification and financial performance. Case studies demonstrate that product diversification strategies can have both negative and positive effects on financial performance of a firm. MFIs have grown in size and portfolio over the last decade hence making significant contributions towards making financial services more accessible in Kenya, However, significant statistical data on the how product diversification has contributed to financial performance of MFI's is needed. In this project, the objective is to study the relationship between product diversification in deposit taking microfinance institutions and financial performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces the methodology framework that was followed in the process of conducting the research study. The research methodology includes research design, sampling procedure, sample size, target population, instruments used in data collection, data collection procedures, data analysis procedures and analytical model.

3.2 Research design

A research design is relevant in showing the structure of the study and also to show how the various parts of the research project work jointly to address the gap in the research question. According to Kerlinger (1973) the research design reveals the plan structure and the strategy of analysis relied on to obtain answers to the research questions and the control variance. In this study, the researcher adopted descriptive study design. According to Donald and Pamela (1998), descriptive study concerns with establishing what, how and where of the phenomena under investigation. This design was used due to its ability to enable the researcher to extend in a bigger population and generalize the outcome findings.

3.3 Population

Ngechu (2004) defines a population to refer to an entire collection of people, events, or things of interest which the researcher desires to examine. According to him, he defined a

population as a set of services, elements, people, households, groups of things or events that are being researched on. According to Mugenda and Mugenda (1999), studies that rely on data from the whole population are more reliable because all the units have equal probability to be incorporated in the final sample that is drawn. This study comprised of all the 9 Micro-finance institutions registered and licensed with CBK in Kenya and that constantly existed in financial years 2012 to 2015. (Appendix 1).

3.4 Sample population

A study done by Mugenda and Mugenda, (2003) indicated that, the target population is required to have some visible characteristics, which the researcher may use to take a broad view of the outcome of the study. For the interest of this analysis, the researcher relied on data from 9 microfinance institutions licensed by CBK and existed between 2015 and 2015 as per the CBK report 2015. This ensured that we get adequate secondary data for the purpose of the study.

3.5 Data collection methods

In this study, the researcher relied on secondary data from Association of Microfinance Institutions Kenya (AMFIK) published reports, financial reports published by MFI's and CBK reports on MFI Sector in Kenya. According to Maina (2013), secondary data involves the compilation and analysis of records that have been published and other information from various sources such as annual published reports. Thus in this study the researcher used the end of year financial reports of the MFIs for the four years period between 2012 and 2015 specifically the balance sheets and the income statements and

Sector distribution of loans and advances. The balance sheet provided the researcher with information regarding the asset and equity changes while the income statement provided information regarding changes in net income. The sectoral distribution of loans and advances provided the information on diversification per sector in Kenyan economy.

3.6 Data analysis

This involves the process and procedure of collecting, modeling, and transforming data with the objective of getting meaningful information, aiding decision making process and suggesting conclusions and recommendations. The data collected was also subjected to editing/cleaning, coding and entry tasks/activities to ensure accuracy, consistency and completeness. The statistical package for social science package (SPSS) was used to help in analyzing and interpreting the data collected.

This study used measures of concentration as the proxy of diversification meaning the lower values of this coefficient, the higher the diversification. High values of this coefficient indicate concentration (Yana 2015). To get the composition of microfinance loan products, the relative exposure (*ybti*) of the microfinance (b) at the time period (t) and to a specific economic sector (i) was estimated as below:

$$\gamma_{bti} = \frac{NominalExposure_{bti}}{TotalExposure_{bt}}$$

Product diversification was analyzed using Herfindahl-Hirschman Index (HHI) as below.

$$HHI_{bt} = \sum_{i=1}^{n} \gamma_{bti}^2$$

Where;

Nominal Exposure = Total loan book per individual sector.

Total Exposure = Total loan book.

Correlation between performance and diversity was calculated to find the effect of diversification on performance. From the CBK yearly reports by Microfinance institution (Sectoral distribution of loans and advances return-MFR7), the researcher was able to get the exposure of each MFI to the individual economic sectors in Kenya (Appendix 3).

3.6.1 Data Analytical Model

Data analysis regression model below was used as cited by Maina (2013)

$Y = \beta_0 + \beta_{1X1}, + \varepsilon$

Whereby Y = Financial performance indicator as the dependent variable while X1 is the Production diversification level (HHI) as the independent variable and β_0 is the Y intercept, β_1…is the coefficients and ε = Error term. Diversification level (HHI) was regressed against the measure of financial performance as calculated by ROA as shown below:

$ROA = \beta0 + \beta1 (HHI) + \varepsilon$

Where ROA represents the Return on assets, HHH is the level of product, diversification, β_0 is the y intercept and ε is the error term. In this study, the F- value was used to test for significance. The financial performance measure (ROA) was used since the data was easily available in the secondary data sources indentified above from the published financial reports and CBK reports and it also considers investments on assets relied on to support business activities.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, the researcher presents the results and findings derived from the study as informed by the research objective. The data was collected from CBK for the nine microfinance institutions. The results were presented in the form of summary tables while the data was analyzed using Regression model to answer the question from the research objective

4.2 Data Analysis and Interpretation

4.2.1 Regression Analysis

The relationship between product diversification and financial performance of deposit taking MFIs in Kenya was evaluated through a regression analysis. Table 4.1 below shows a summary of results from the regression model with the coefficient of determination showing the extent to which the predictor variables influences the dependent variable, the analysis of variance in table 4.2 which determines the reliability of the model developed in explaining the relationship and the regression coefficients in table 4.2 which gives the coefficient explaining the extent at which both the dependent and independent variables influence each other.

4.2.2 Interpretation of Findings

The tables below shows the data output from the analysis using statistical package for social science package (SPSS).

Table 4.1: ANOVA for product diversification and ROA.

Dependent Variable: Return on assets

Source		Type I Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	414.550	1	414.550	5.164	.041
	Error	1038.301	12.933	80.284[a]		
HHI	Hypothesis	2084.290	25	83.372	.874	.062
	Error	954.296	10	95.430[b]		
		4491.437				

a. 1.256 MS(HHI) - .256 MS(Error)

b. MS(Error)

C. $R^2 = 0.46$

From the table above, Adjusted R2 is referred to as the coefficient of determination which shows us how performance of microfinance institutions in Kenya varied with variation in product diversification. The value of adjusted R2 is 0.46 which shows that in this model, HHI only reflects 46 (R-square 0.46) percent of the variance in ROA with F (1, 42) = 0.874, p value = .062. The P value measures how significant the variables are with the current value of 0.062 showing that product diversification is significant to financial performance (Y).

Table 4.2: ANOVA coefficients for product diversification and ROA

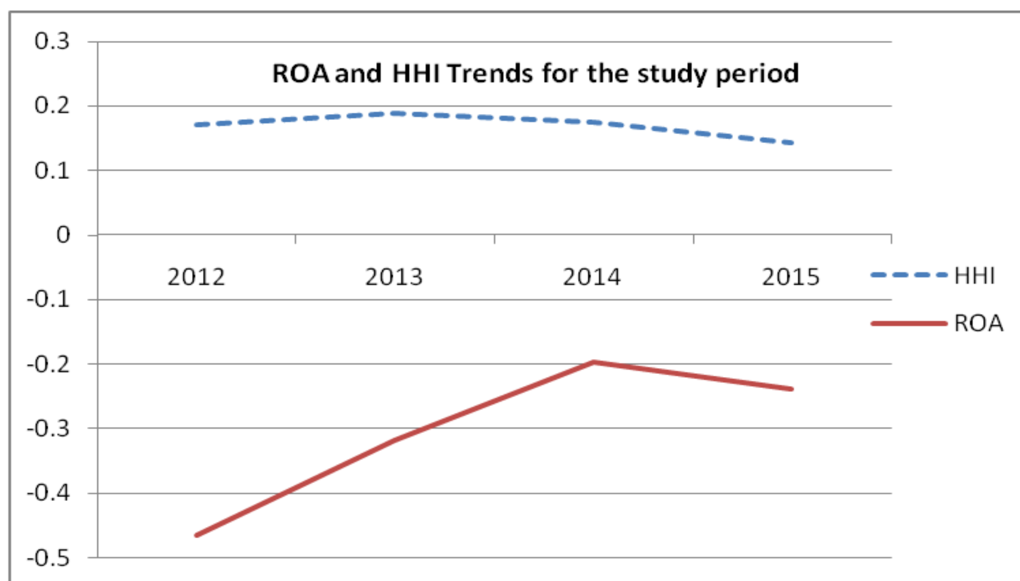
Source	Variance Component		
	Var(HHI)	Var(Error)	Quadratic Term
Intercept	1.722	1.000	Intercept
HHI	1.371	1.000	
Error	.000	1.000	

The table gives the regression coefficients which are used to answer the regression model proposed. $Y = \beta_0 + \beta_{1X1}, + \varepsilon$

Based on the table results, the model therefore becomes;

Y=1.722+1.371X1+Ɛ

Figure 2.2: ROA and HHI Trends for the study period



Source: Author (2016)

Table 4.3: ROA and HHI Trends for the study period

	2012	2013	2014	2015
HHI	0.1721612	0.189433	0.174469	0.143244
ROA	-0.464514	-0.3181	-0.19759	-0.23902

From the model, all the coefficients are positive and thus the variables are positively related to the dependent variable. The data showed that a unit increase in diversification as noted by HHI leads to 1.371 units increase on return on asset. The model also shows that holding the predictor variables constant at zero (0), the financial performance as noted by (ROA) would be 1.722. This is the Y intercept which gives the predicted value when the independent variable level is zero (HHI=0). The study concludes that, product diversification marginally improves financial performance of microfinance institutions in Kenya. This results agree with other research findings from Rotich, Ochieng & Away (2011), Kimeu (2012) and Wambua (2014) of positive relationship between product diversification and financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter, a summary of the key findings from the study are presented with recommendations and conclusions made as per the findings derived from chapter four. The chapter also presents the areas indentified during study for further research.

5.2 Summary

The objective of the study was to establish the relationship between product diversification and financial performance of deposit taking Microfinance institutions in Kenya. In order to fulfill the objective, the study focused on investigating, examining and analyzing the relationship between product diversification and financial performance. Microfinance is viewed to involve the provision of services that are financial in nature to SMEs who have limited access to banking and other financial related services owing to the high costs of transaction related with serving this category of clients.

Microfinance institutions performance can be evaluated by the use of financial statements accounting information. This analysis of institution's financial performance entails the process of assessing the relationship between the elements of financial statement to acquire facts on the institution's performance.

The analysis reveals that the microfinance instructions in Kenya on aggregate are moderately diversified with mean diversification index of 0.17 (HHI=0.17) as shown in

appendix 4. This shows that, microfinance institutions diversify as one of the strategy to assist in improving financial performance.

5.3 Conclusion

The results findings from the entire study of the regression model shows that financial performance as measured by ROA has a positive linear relationship with HHI level as measured by exposure per economic sector.

5.4 Policy Recommendations

This study recommends that microfinance institutions should extend their product mixes to increase the performance through combination of non interest activities and innovative customer focused products that ride on existing technology. Also the study recommends that there is need to strengthen microfinance institutions product diversification policy through effective and efficient regulation and supervisory framework from the regulator (Central Bank of Kenya).

5.5 Limitations of the Study

The limiting factors for the purpose of this study were regarded as the parameters that were experienced and which contributed to the researcher inability to get the required data or getting inadequate information. The study experienced various challenges which limited its suitable process of execution. The use of secondary data was one of the limitations to the study. This is because the data used was not originally collected for the sole purpose of this study but for monitoring purpose. This brought about the question of

accuracy of the data to be used in analyzing the factors as influencing financial performance of the MFIs.

Another limitation in the course of the study was the limited time used to conduct the study. Studies that are done in ample time give more reliable findings unlike those done in a short time. Due to my official duties, time was a major concern. The information required for the study was very confidential with limited accessibility from the microfinance institutions and CBK research department.

5.6 Suggestions for Further Research

The following are the suggested areas that are suggested in this study for future research; Further research can be carried out in other Microfinance institutions in East African countries to gather adequate information that can be used to formulate a sustainable framework and see whether similar results will be achieved in other countries.

This study used secondary data; future studies should also consider employing primary sources of data to collect data for their studies. This would be time saving and would also facilitate detailed information collected from original sources which would as well give reliable and accurate results that gives more details on the subject.

Finally, this research project focused on diversification through various sectors of the economy through the various loan products in MFIs, further research should focus on diversification to non funded incomes through other channels like internet, mobile banking, agency banking and ATM cards.

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APPENDICES

Appendix I: List of Licensed Microfinance Banks

	Name of Institution	Date Licensed
1	Faulu Microfinance Bank Ltd	21st May, 2009
2	Kenya Women Microfinance Bank Ltd	31st March, 2010
3	SMEP Microfinance Bank Ltd	14th December, 2010
4	Remu Microfinance Bank Ltd	31st December, 2010
5	Uwezo Microfinance Bank Ltd	08 November, 2010
6	Rafiki Microfinance Bank Ltd	14th June, 2011
7	Century Microfinance Bank Ltd	17th September, 2012
8	Sumac Microfinance Bank Ltd	29th October, 2012
9	U&I Microfinance Bank Ltd	8th April, 2012

Source: Central Bank of Kenya website.

Appendix 2: Introduction Letter.

Friday, 10th October 2016

The Director,
Bank Supervision Department,
Central Bank of Kenya,
Haile Selassie Avenue,
P. O. Box 60000 – 00200,
Nairobi

Dear Sir

Dear Sir/ Madam,

RE: DATA COLLECTION FOR MBA RESEARCH PROJECT.

As part of the requirement for the degree of master of business administration (MBA) of the school of business, University of Nairobi, I am currently undertaking a research. The aim of the research is to find out "The Relationship between product diversification and Financial Performance of Deposit taking Microfinance Institutions in Kenya".

I would be grateful if you could please provide the information sought by the data collection forms attached. Your responses will be treated in strict confidence and the results of the report will be used solely for academics purposes.

Yours faithfully

Amon Kariuki

D61/72924/2012

Appendix 3: Data Collection Form - Published financial reports.

	DEC 2012		DEC 2013		DEC 2014		DEC 2015	
MFI	**Asset Value**	**Profits (PBT)**	**Asset Value**	**Profits (PBT)**	**Asset Value**	**Profits (PBT)**	**Asset Value**	**Profits (PBT)**
FAULU								
KWFT								
SMEP								
REMU								
UWEZO								
RAFIKI								
CENTURY								
SUMAC								
U&I								
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Appendix 4: Data Collection Form- Sectoral performance.

PERIOD (Year Ended)..										
ECONOMIC SECTORS	FAULU	KWFT	SMEP	REMU	UWEZO MFI	RAFIKI MFI	CENTURY MFI	SUMAC	U&I MFI	TOTAL
Agriculture										
Manufacturing										
Building And Construction										
Mining And Quarrying										
Electricity And Water										
Trade										
Tourism, Restaurant And Hotels										
Transport & Communication Business										
Real Estate & Home Improvement										
Financial Services										
Personal/Household Consumer Loans										
TOTAL										

Appendix 5: Summary of ROA and HHI Level (2 Decimals Places)

Table 4.4: Average ROA and HHI per MFI (Data period 2012-2015)

MFI	ROA	HHI
SUMAC MFB	0.01	0.15
REMU MFB	0.02	0.15
UWEZO MFB	-0.01	0.16
RAFIKI MFB	-0.05	0.16
FAULU MFB	0.01	0.16
KWFT MFB	0.01	0.16
SMEP MFB	-0.23	0.17
U&I MFB	0.02	0.17
CENTURY MFB	-0.04	0.24
AVERAGE	**-0.03**	**0.17**

Source: Research data and CBK (2012-2015)