FINANCIAL RISK MANAGEMENT AND FINANCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN NAIROBI COUNTY, KENYA

BY

EVELYN AUMA ONGILI

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

Signature…….. Date…….

EVELYN AUMA ONGILI **REG NO: D61/68063/2011**

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

Signature…….. Date…….

Martin Odipo

Senior Lecturer

Department of Finance and Accounting,

School of Business

University of Nairobi

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My special thank you goes to the Almighty God for having given me the strength to persevere all the obstacles that came on my way. My supervisor **Martin Odipo** and fellow scholars have shown their sincere contributions and I wish to thank them for their support and advice

DEDICATION

I dedicate this research project to my loving family. They were very supportive during the entire period and they relentlessly contributed towards creation of a suitable environment to ensure that I further my studies. I also thank God for seeing me through my entire studies.

ABSTRACT

Each company has a financial risk, but a MFI that uses the correct strategies of managing financial risks in their business plan and in their management of financial performance have a higher likelihood of attaining their strategic as well as operational goals. The key to performance of MFIs is management of financial risk. The focus of MFIs is to attain appropriate balance in risk and returns and reduce the adverse effect it might have on their performance financially. To attain this, there is need to have techniques of managing financial risks that are more sound and dynamic to improve performance in this sector that is very competitive and dynamic and the outcome will be competitive advantage generating growth and also profit. The main objective of this study was to determine the relationship between financial risk management and financial performance of MFIs in Nairobi County, Kenya. The study was guided by the following specific objectives: to determine the effects of financial risk management, to examine the effects of deposits, to establish the effect of capital ratio and to assess the effect of liquidity ratio on financial performance of microfinance institution in Nairobi County. Descriptive research design was adopted with the targeted population being a total of 55 MFIs that are located in the County of Nairobi and that are members of AMFI. The study used secondary information that was collected for duration of 5 years from 2013 to 2017 from MFIs financial statements. The study performed multiple regression analysis to determine how MFIs performed financially. SPSS Version 23 was used in analyzing the data where inferential and descriptive statistics were performed. logit regression model was applied in testing the association between management of financial risk and performance financially. The study found that changes on performance of MFIs financially could be accounted for by changes in financial risk management, deposits, capital ratio and liquidity ratio. The study also found that financial risk management, deposits, capital ratio and liquidity ratio and performance of MFIs financially were strongly related. The study also revealed that financial risk management, deposits, capital ratio and liquidity ratio positively and significantly affect performance of MFIs financially. It is recommended that management of MFIs need to invest more in automated strategic risk management tools which would enhance analysis and profiling of their strategic risk. There is need for the management of microfinance institution in Kenya to maintain the liquidity level at safe level as it was found that liquidity ratio positively affect performance of microfinance institution financially. In addition microfinance institution should try and find ways in which they can increase their level of equity this will in return lower cost on capital and will have a positive effect on profitability.

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LIST OF ABBREVIATIONS

AMFI	Association of Micro finance Institutions of Kenya
CAMELS	Capital Assets Management Earnings Liquidity Sensitivity
CBK	Central bank Of Kenya
DETA	Deposit to Total Assets
EQTA	Equity to Total Assets Read
IMF	International Monetary Fund
MFIs	Microfinance Institutions
NPLs	Non-Performing Loans
ROA	Return on Assets
ROE	Return on Equity

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In today's business environment, managing risk is more challenging than ever with bankruptcy rate raising, the risk of incurring substantial losses are greater than ever. For any business entity to survive, it requires to be financially sound. While he pressure from the economy and other practices in the business are causing companies to pay slower, there is a greater focus on managing financial risk. Poor financial risk management controls heightens the risks to liquidity and profitability (Graham, 2010). The basis of managing risk is to make wise choices regarding the level of risk that can be tolerated, techniques that can be used in mitigating those risks that cannot be tolerated and managing real risks which are part of the business. It is easier for those companies which their sole purpose is to make profits compared to the MFIs that evaluation of their performance is based on financial as well as social objectives. A framework of managing risk gives the senior managers as well as directors an opportunity to decide on various aspects concerning risks and determine the approach that is most cost effective in managing those particular risks and cultivating an internal culture rewarding management of risks that is good and at the same time does not discourage taking of risks (Bald, 2012).

With the rapid growth and expansion of MFIs, which serves increasing number of clients and attracts more capital and funds for investment, there is need for a strengthened internal capacity identifying and anticipating potential risk thus avoiding losses and surprises that are unexpected (Castello, 2014). The role of any financial institution is managing risks of finances including the following risks; credit, liquidity, interest rate, foreign exchange and investment portfolio. Majority of MFIs have directed a lot of resources in coming up with a

plan that will reduce individual risks on credit and at the same time ensure that quality portfolio is maintained. MFIs whose source of loan funds is the deposits need to have funds that are sufficient to provide the loans and also for withdrawals of the deposits (Bald, 2012). MFIs relying on deposit funds and other borrowings are affected by change in rate of interests (Etienne & Graham, 2010).

Management of financial risk needs a treasury function that is sophisticated which is usually centralized at the headquarters and its function is to manage risks like; liquidity, interest rate, and investment portfolio. There are several choices that MFIs can select for funding and there is increasing differentiation of loan assets which is very important in proper management of this risks (Bald, 2012). The risk that is frequently dealt with by the MFIs is the financial risk earnings or capital from borrowers and obligations of not paying loans. Financial risk includes loosing income as a result of inability by MFIs to collect the interest earning they anticipated and also as a result of losing principal amount that results defaulting of loan payments. Transaction risk as well as portfolio risk form part of financial risk (Steinwand, 2013).

1.1.1 Financial Risk Management

Quality control of funds is what is referred to as management of financial risk. It is a wide terms that is used to refer to various things in various contexts but it mainly involves identifying analyzing and taking needed actions to eliminate or lower the probability of incurring losses whether by an individual or a company (Steinwand, 2013). The key concern of managing microfinance is to optimize the profits that are expected while considering the financial risk it faces. Therefore, there is need for risk management that is active for the purpose of attaining the needed outcome. It can therefore be said that management of

financial volatility is trying to lower the risk on profits which has the capability of reducing the value of the wealth of stakeholders. There are various reasons that have been provided by different individuals including Stulz (2014), Smith and Stulz (2013) and Froot, Scharfstein and Stein (2013) on why it is important for managers to have their focus on risk management that is active in the company.

Oldfield and Santomero (2015) based on his reviews on various literatures provided 4 key rationales for management of financial risk. They are; personal interest in protection of their positions and the company's wealth. The argument is that because of their abilities that are limited in diversifying their investments in their own companies, they avoid taking risks and opt to ensure stable earnings of the company to risks. The reason being; with equilibrium in all aspects, stability leads to improvement in utility. Past the managerial motives, the urge to make sure that the burden of shouldering low tax is another rationale (Steinwand, 2013). With the progress in tax schedules, the tax burden that is anticipated is lowered when there is smooth income therefore activities that lower volatility of income that is taxed are followed which improve the value of stakeholders (Froot, Scharfstein & Stein, 2013).

The rational that is most compelling is the focus of lowering variability of profits whenever there is distress financially. Because of significant losses in earnings, shareholders have lost confidence in operations of the company, the company has lost its position in the market, there has been license withdrawal and even the company has ended up being bankrupt (Smith & Stulz, 2013). Because of the cost that relate with these, managers will try to avoid them by engaging in practices that assist in avoiding realizations that are low. Management of financial risk is pursued because MFI don't want low profits that will force them to try and

find opportunities for investment from outside. In the case that this happens, the result is investment that is suboptimal and therefore low value of stakeholders because the cost of investment from outside is high because of the imperfections in the capital market (Steinwand, 2013).

1.1.2 Financial Performance

MFIs are currently concerned with making profits and growing. With the aim of attaining stability financially as well as growth in their finances, MFIs have undergone restructuring. Profitability refers to the ability of a program to remain viable financially even when aids and subsidies are stopped (Woolcock, 2013). What is embraced is creation of enough profit to cater for all the expenses and eliminate all subsidies even the ones that aren't obvious like the loans that are made in hard currency but its payment is in local currency (Tucker & Miles, 2014). Tucker and Miles (2014) did a study on 3 data series for the period of March 1999 and March 2001 and established that MFIs that are self-sufficient make profit and their performance is better in ROE as well as ROA that commercial banks and MFIs of developing nations that haven't yet reached self-sufficiency.

Based on aggregate data of all the MFIs it was established that MFIs do not make profits and their performance is bad in comparison to their peers. With the aim of optimizing their performance, MFIs are trying to be more oriented commercially and emphasize more on bettering their profits and therefore be self-sustainable there is no likelihood that they will be providing the poor with the costliest and the smallest loans. However, authors continue to stress that majority of the MFIs will continue to need subsidies and since they won't be able to attain self-sustainability because their aim isn't to just provide services that relate with finances and earn interest, but they also provide other services that do not relate with finances

and they do not need to gain anything since they want to assist their customers to properly manage their businesses as well as their living. Tucker and Miles (2014) recalled the application of the rating system of Action CAMEL- which is a modified CAMELs system that is used by commercial lenders in the US, by MFIs in reporting their financial measures, like adequacy of capital, quality of asset, management of liquidity, management, market risk sensitivity and earnings. Comparing various MFIs was made possible through the adoption of a rating model of Action CAMEL which enables the practice of standard accounting.

1.1.3 Financial Risk Management and Financial Performance

The reasons why a firm manages their financial risks are the same with the reasons why they employ management of risk; this is because a financial risk is a sub-group of the risks faced by a firm. Reducing instability of the earnings because of exposure to financial risks is one of the key reasons (Dhanini, Fifield, Helliar & Stevenson, 2013). Because of the reduction the company will be able to make predictions in a better way (Drogt & Goldberg, 2008). This assist in guaranteeing sufficiency in availability of funds for firm's investment as well as dividends the other reason why there is financial risk management is to do away with distress financially and other costs that relate with (Triantis, 2010; Drogt & Goldberg, 2008). Another reason why stabilization of earnings is sought is to ensure that tax levels are kept constant which is another reason for management of financial risk (Dhanini, 2007). Based on the arguments that the firm is focused on, structuring of management of risk could be done. The aim is to reduce risks or avoid large losses (Aumann and Dreze, 2004).

Improved planning of liquidity requirements can be attained by lowering unstable flow of cash/earnings and also prevention of losses. The advantage of this is that it avoids shortcuts in funds availability and equity consumption (Eichhorn, 2014). For the purpose of

maintaining liquidity in finances and avoiding losses at the end of a period, there is need for optimum loss that can be tolerated to be computed. There is need for the focus of risk management to be on the real situation of the firm financially. The risks that are covered are internal, external, and also liquidity as well as solvency risks. There is need for the risk of financing to be taken care of directly depending on disparity of the duration of the asset and their financing. The firm needs to match both durations with the aim of avoiding difficulty or high cost incurred in following up the credit. Further, it lowers the risk of having increased debts that what is required after lifetime of assets and therefore saving interest costs (Vickery, 2016).

External risks financially are affected by variations in the financial markets. It is possible to secure against unstable price or rate of exchange by buying or selling the amount that is needed or will be attained in the future. Organizing of the transactions need to have management work. Further, not always is it possible since it is not possible to store commodities because of the cost of doing so is high. Work as well as cost is caused in a similar way by foreign funds or debt. Lastly, the probability of securing the exposure of interest rate or changing contracts condition is usually restricted. The reason being, the specifics of contracts on debts is greatly dependent on firm's credibility and they aren't flexible (Brünger, 2008).

1.1.4 Microfinance Institutions in Kenya

According to the Institute of Economic Affairs (2002) MFIs in Kenya took various routs but they had similar aim of providing different credit facilities to borrowers in rural areas as well as the ones in urban areas. MFIs were created as a result of increased poverty levels in Kenya and the need of provision of finances for investing for those individuals who had no ability of

securing a loan through the banks. Recently, MFIs have been facing several challenges which have impacted the way they do business. There has been a significant increase in competition among the MFIs which has resulted in low interest rates, increase in efficiency by creation of financial products that are distinct. One of the main challenges has been commercial banks being involved in the services that are provided by MFIs (Institute of Economic Affairs, 2002).

It is expected of financial systems to provide the function of resource transfer from surplus units to deficit. Safe savings, loans that are well designed for the poor, MSEs, SMEs and insurance that is appropriate and services of payments that can assist individuals to improve income, acquire capital, manage risk and opt out of poverty (Srikanth, 2013). The key role of the financial industry is to bring together investors and savers, channel finances to uses that yield high returns therefore increasing specialization and division of labor pooling of risks, transferred and lowered by banks while there is an increase in liquidity as well as information by using progressively financial products that are more sophisticated and also technology. Technology as well as innovativeness in financial services doesn't just increase financial accessibility but improves accessibility rate (Todaro & Smith, 2003).

1.2 Research Problem

Each company has a financial risk, but a MFI that uses the correct strategies of managing financial risks in their business plan and in their management of financial performance have a higher likelihood of attaining their strategic as well as operational goals (Steinwand, 2013). The key to performance of MFIs is management of financial risk. The focus of MFIs is to attain appropriate balance in risk and returns and reduce the adverse effect it might have on their performance financially (Vickery, 2016). To attain this, there is need to have techniques

of managing financial risks that are more sound and dynamic to improve performance in this sector that is very competitive and dynamic and the outcome will be competitive advantage generating growth and also profit. There some risks aspects that provide a chance through which companies can have competitive edge and contribute to improved performance financially (Stulz, 2016).

MFIs became prominent in Kenya in the 80s but it was experimented three decades before in countries like Bangladesh, Brazil and a few others. Majority of the MFIs were founded as NGOs and they got their funds from agencies as well as donors (foreign) (Wainana, 2012). In Kenya, growth in MFIs sector has seen not less than a hundred NGOs provide services to customers. There are only fifteen companies that are considered to be significant players. In Kenya, it's greatly recognized that promoting micro and small FRMS enterprise industry is a dynamic strategy to attain the goals of the nation which includes creation of job opportunities, eliminating poverty, and attaining a balance in development of sector and sub sectors. All of them are essential in achieving the vision of the government which is industrialization by 2020 (Mullei & Bokea, 2013).

The MFIs assets are still less sustainable compared to the ones of formal financial providers such as banks and therefore they don't pose a risk to stability of the general financial system in majority of the nations. But, there is increasing volume of MFIs that take deposits from the public, and majority of individuals depositing are poor since their target is the low income earners and majority of them give out loan without asking for collateral or are very flexible compared to banks regarding the collateral that is needed for a loan to be given (Wainana, 2012).

Based on empirical researches that have been conducted in Kenya, their focus has been on management of credit risk and they include (Njiru, 2003) who studied the effects of management of credit risk in coffee coops in Embu district, investigation of practices of management of credit risk by pharmaceutical manufacturing firms in Kenya (Nduku, 2007) and study of techniques of management of credit risk embraced by MFIs in Kenya (Mwirigi, 2006). The studies did not factor in financial risk management. Oludhe (2010) studied impact of management of credit risk of how commercial banks in Kenya perform financially and established that they strongly affect components of CAMEL on performance financially. The main focus of the stud was credit risk which one of the components in financial risk. There is a little study which has been carried out to determine how the wider management of financial risk impact performance of MFIs in Kenya financially. There is limited evidence on the association between management of financial risk and performance of MFIs in Nairobi financially. Therefore, the study sought to fill this research gap by investigating the association between management of financial risk and performance of MFIs in Nairobi County, Kenya financially.

1.3 Research Objective

1.3.1 General Objective

To determine the relationship between financial risk management and financial performance of MFIs in Nairobi County, Kenya

1.3.2 Specific Objective

The study was guided by the following specific objective

i. To determine the effects of financial risk management on financial performance of MFIs in Nairobi County

ii. To examine the effects of deposits on financial performance of MFIs in Nairobi County
iii. To establish the effect of capital ratio on financial performance of MFIs in Nairobi County
iv. To assess the effect of liquidity ratio on financial performance of MFIs in Nairobi County

1.4 Value of the Study

The study might provide deeper insight into how financial risk management contributed to the financial performance of MFIs, thus, allowing for improvement in MFIs strategies to enhance lending and therefore it will benefit managers of MFIs since it is focusing on management of financial risk which is the key source of business for majority of MFIs. The research information would also provide very important information to help and benefit researchers, makers of policies, and planners as well as implementers in monitoring and evaluation of facts that exist on how financial risk management systems contributed to the financial performance of MFIs.

This would catalyze policy thus, influencing decision-making processes by presenting various practices that can be shared by all financial institutions in the sector and the regulatory board in general. Future researchers and students may use the study as a source of empirical information on the impact of financial risk management systems as well as a source of areas for further research on areas not covered by the study. Overall, the study will contribute to the academic pool of knowledge.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter literature that relates to the study is discussed. The chapter has been divided into various sections; the first section is the theoretical review, the second section covers the empirical review the third section covers the research gaps then the summary of the chapter is provided.

2.2 Theoretical Review

The study was guided by the stakeholder theory, financial economic theory and new institutional economics theory.

2.2.1 Stakeholder Theory

This theory focuses on equilibrium of the interests of the shareholders which is the key determinant of the policies of the corporation. In some of the sectors, mainly high-tech and services, clients trust that the firm has the ability to continuously offer their services in the future which increases the value of the firm. The value of this claim is very sensitive to the cost that is anticipated in case of bankruptcy of distress financially. Because the practices of managing financial risk result to reduction in the expected cost, there is a rise in the value of the firm (Klimczak, 2005).

Thus, this theory gives a new perspective to another rationale to management of risk but it hasn't been directly tested. According to Judge (2006) the hypothesis on investigating financial distress gives only evidence that is indirect. In a case that a company does enter financial distress, then it will incur the cost of defaulting on loan, the one for filing for bankruptcy and the one that relates to reorganization and liquidation. With these costs, companies have incentives of lowering the chances of falling into distress financially.

Hedging of variability of earnings is one of the ways through which a company can lower the likelihood of falling into financial distress.

2.2.2 Financial Economic Theory

This theory indicates that management of corporate risk is important in increasing the value of the company in cases where the capital market is not perfect and there exist imperfections like bankruptcy cost, tax schedule that is convex or issues of underinvestment. Carter et al. (2006) indicated that management of risk has a chance of increasing the value of shareholders through financial harmonize and policies of investment. There is a chance that a company will under invest when they are using external capital. Management of financial risk can be applied in increasing the value of stakeholders through the coordination of the need to have internal funds available. Conflicting interests between stakeholders and debtors can result to the company under investing.

In cases where there is a high leverage and the residual claim of the assets of the company by stakeholders is small the issue of under investing may arise, therefore the advantage of an investment that is safe and also profitable arises mainly to the holders of the bond and could not be accepted (Bessembinder,1991). Management of risk that is credible could reduce the likelihood of under investing by lowering volatility of the value of the company. There is a high likelihood that those companies that have significant opportunities of growth and investment will suffer the problem of under investing, there are a number of techniques that can be applied in measuring this hypothesis of under investing.

2.2.3 New Institutional Economics Theory

Williamson (1998) indicated that this theory is a prediction that the practices of managing risks could be determined using practices that are accepted in the industry or the market.

Furthermore, through the theory, security is linked with asset purchase that are specific, implying that management of risk can be significant in contracts binding two sides without giving a chance for diversification, like a corporation in a supply chain or a large contract of financing.

Companies that are in sectors that are regulated provide top managers with less chances of discretion in corporate investing and decisions of financing. Smith and Watts (1992) did show that regulating is a main determining factor in policies of corporate financing of a company. If companies that are regulated face tight scrutiny and low costs of contracting, then they have a less likelihood of hedging company risk. Froot, Scharfstein, and Stein (2013), indicated that if funds from external sources cost more to a company in comparison to internal funds, then the firm could benefit from using the methods of managing risks that are proactive. Particularly companies hedging cash flow with the aim of avoiding shortfall in finances which could need a visit to the capital market that and at the same time derivatives have a positive relationship to measures of the company's opportunity to invest set proxies.

2.3 Determinants of Financial Performance

2.3.1 Financial Risk management

In the past years, there has been an increasing attention drawn to management of financial risks (Glaum, 2000). This is because, despite these financial risks not being the main competency for the non-financial companies, they greatly affect the operations of their businesses (Triantis, 2010). There could be various forms of financial risks. Based on variations in the financial markets, there are financial risks that are external and also there are the internal risks whereby the firm is the source of the risk (Eichhorn, 2004). The bases of the external risks are factors of interest and exchange rates, and also prices of commodities

(Schönborn, 2010). There are 4 different forms of financial risks which will be discussed; credit; market; capital management and liquidity risk.

2.3.2 Deposits

It is stated that MFIs greatly depend on finances that are provided by the public in form of deposit in financing loans to clients. It is believed that the cheapest source of finances to MFIs is deposits and therefore deposits positively affects profitability of MFIs is banks loan demand is high. This implies that the higher the deposits the MFIs are able to collect then the higher their ability to provide loan is and therefore the higher the ability to generate more profits Devinaga (2010). It is important to note that the demand for loans from MFIs is low and therefore increase in deposits could mean decrease in earnings which leads to decrease in profitability. The reason is, deposits such as Fixed deposits, do earn higher interest to the depositors from the MFIs (Devinaga, 2010). Husni (2011) investigated factors determining the way Jordanian banks perform and established that ROA and total liability to total assets were significantly ad positively related. Vong and Nourzad (2009) did a presentation of impacts of deposits (DETA) on profit as deposit to total asset ratio in capturing capture deposits in the model.

2.3.3 Capital Ratio

Devinaga (2010); Vong and Nourzad (2009) did include capital ratio as one of the variables in determining profitability of the bank and its performance since capital acts as a financial source alongside deposits as well as borrowings. The argument was that capital structure including funds from stakeholders, reserves and profits retained do impact the profit levels of the bank since they impact risk as well as leverage. In addition, they indicated that financing of the assets of the banks could be by debt or capital.

Sufian (2008) did argue that banks that are located in countries that have developed require a capital structure that is strong this is because it gives them strength of withstanding crises (financially) and offering depositors with a better and safe net in time of bankruptcy and distress in conditions of micro economy. Molyneux (1992) indicated that banks having high equity levels can lower capital cost which will positively impact profits. Based on empirical proof by Karkrah and Ameyaw (2010) on factors determining profits in Ghanaian banks established that equity ratio was positively related with ROA of the bank. Their findings were in agreement findings of Suffian (2008) who investigated banks in Philippines and revealed that capitalization levels and profitability were positively related. They were also in line with those findings of Berger (1995), Demirguc-Kunt and Huizinga (1999), Pasiouras and Kosmidou (2007). Capital ratio was presented in Devinaga (2010) did a presentation of capital ratio in his study as (CTRA**)** where Capital and reserve were as a percent of overall assets.

2.3.4 Liquidity Ratio

Devinaga (2010) indicated that it a requirement set by regulators of commercial banks for them to hold some level of liquidity assets. This is so, in order to make sure that they possess enough liquidity to make sure that they have the capability to run the banks. Furthermore, he stated that the bank assumes a state of being highly liquid only if it's able to gather enough cash and possess other liquid assets and have are capable of raising finances quickly from other sources to meet their obligation of payments and other commitments financially without delay.

Bourke (1989) established that concentrations as well as other factors determining the profitability of the banks in Europe, North America and Australia showed level of liquidity and profitability were positively related. Based on the 2011 county report by the IMF it showed that banks in Ghana are more liquid and liquidity regarding the assets of the banks which have increased significantly after the crisis (financial). The estimation provided in the report was that in the year 2010 the ratio of liquid asset and total assets was 25.3% and that of liquid asset to liabilities of short-term was at 32.9%. Therefore for the banks in Ghana to have high liquidity levels could be the reason why they made profits during a time of crisis.

2.4 Conceptual Framework

A conceptual framework refers to list of variables which are operationalized by a researcher with the aim of attaining his/her objective (Mugenda & Mugenda, 2003). It shows the association that exists between the predictor and the response variables. Figure 2.1 below shows the framework that was applied in this study

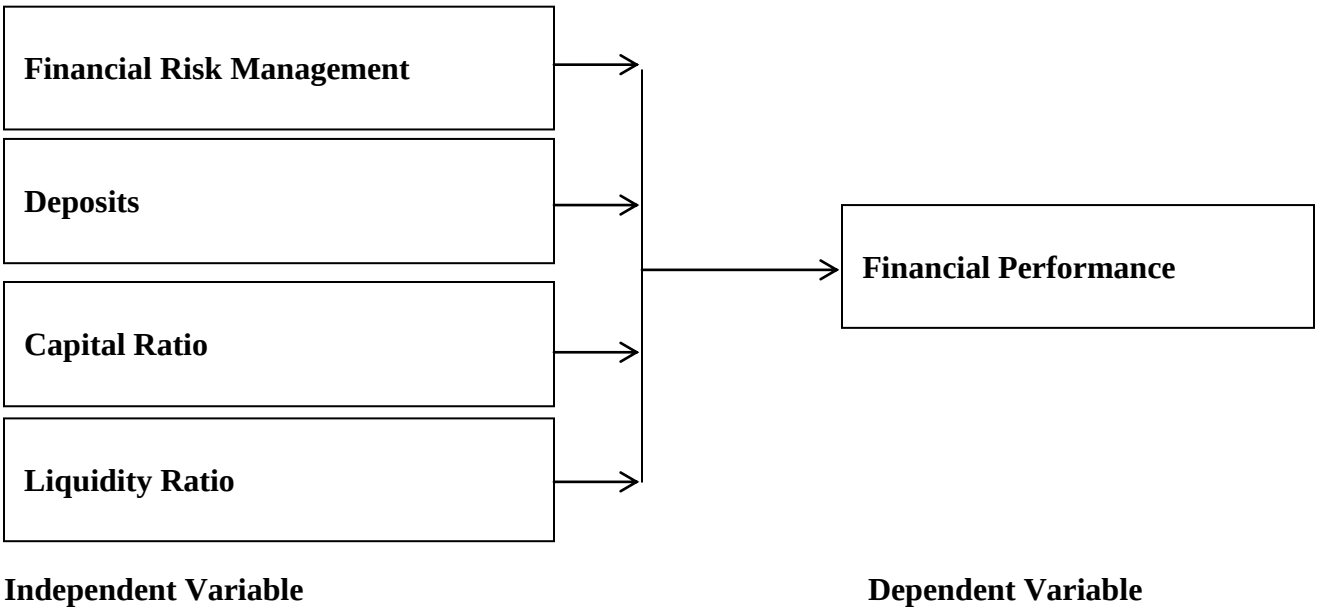

Figure 2.1: Conceptual Framework

2.5 Empirical Review

Ojiako (2012) conducted a study that examined thematic elements in strategic business risk. The aim of the study was to provide propositions on the way a company could conceive risks in a business in an environment that is characterized with frequent changes and uncertainties. In order to achieve this, the researched did an examination on the way military manages its engagements with risks related to it and uncertainties. The study made a presentation of summary of literature that was published in the past 4 decades that covers 3 main areas of literature management; risk management, competitive strategy and also the tactics of the military are conducted. In the paper, a proposition was provided on empirical development on the framework that was deemed appropriate for management of strategic risk.

Kargi (2011) studied credit risk and the way Nigerian banks performed. The study applied the use of portfolios of loans that are not performing and they have a significant contribution to distress financially in the banking industry. The performance of the bank and credit risk as measured by financial ratios whereby the information that was used was collected mainly from secondary sources especially the yearly report and the accounts of the selected banks for the periods of 2004 to 2008. The study concluded that the management of credit risk significantly affected profit making of the Nigerian banks. The management therefore requires to be very cautious in setting credit policies which could have negative impact on profits and they also need to understand the way credit policies impact banks operations to make sure that the deposits are judiciously utilized.

Ahmed, Akhtar and Usman (2011) did a study on the practices of managing risks in the Islamic Banks. The focus of the study was determining the level factors of the company which have significant influence on practices of managing risks in Pakistani Islamic banks.

The response variable that was used in the research study was credit, operational and liquidity risks while the predictor variables that were used were size, leverage, NPLs ratio, capital adequacy and asset management; the data was collected from 2006 to 2009. It was established that size of Islamic banks were positively and statistically significant financial risks (credit and liquidity risk), while it was negatively but not significantly related with operational risk. The management of assets was significantly and positively related with liquidity and risk of operations. It was further established that debt equity ratio and NPLs ratio were negatively and significantly related with liquidity and risk of operations.

Siba (2012) studied association between management of financial risk and the way commercial banks in Kenya performed financially. The sample size that was used in the study was 40 commercial banks. It was established that all the banks had a formal system of managing risks and their risk management environment was similar also their policies as well as procedures. It was also established that the levels of monitoring of risks were efficient and also were the management of IS and internal controls. The conclusion of the study was that the practices of managing risks put in place by the banks were very effective and that the performance of the bank and efficiency in the practices of managing risks are strongly related.

Mwangi (2012) studied the impact of practices of managing risks on the way commercial banks in Kenya performed financially. The aim of the study was analyzing the practices of managing risks that are used by Kenya banks and also stabling and assesses the effects of those practices of managing risks on performance financially. It was established that management of risk and other related practices are considered to be significant in operations

and performance of the banks financially. The guidelines that are put in place by the CBK and the state of the banking sector can have a significant influence on this. Most of the time, banks have embraced proactive and approaches that are enterprise in practices of managing risks by creating a department having managers and have policies of managing risks that are documented in all levels of the organization.

Kithinji (2010) studied management of credit risk and profit making by commercial banks in Kenya by use of NPL portfolio as the response variable and predictor variables as effectiveness of practices of managing risks. The amount of credit which was indicated by loans as well as advances and total assets normalize it was used as the intermediate variable. Profitability was the response variable. It was established that management of credit risk (NPL portfolio), amount of credit and profitability were not significantly related. The focus of this study by Kithinji was credit risk alone and did fail to recognize role that was performed by other financial risk.

Kombo, Wesonga, Murumba and Makworo (2010) assessed the effect of strategies of managing risks on stability of MFIs financially; a case of MFIs in Kisii Municipality, Kenya. The research design that was adopted was survey design. The study established that MFIs preferred donor funding, revolving fund and government subsidies as their sources of finances. The study also established that the common risks that were faced by the MFIs were the Strategic, credit and liquidity risks while reputation and subsidy dependence were not frequent. Furthermore it was revealed that avoidance of risk, risk transfer, risk mitigation were some of the strategies that the MFIs used in reducing the risks. Risk Mitigation is considered to be strategy of managing risk that is most effective. To be more specific, loan

accounts reconciliation and data loan were the most effective ways of managing risks in establishing sustainability of MFIs financially.

Kamau (2010) studied embracing management of risks by commercial banks in Kenya. The focus of the study was identifying risks that are faced by commercial banks in the practice of managing risks that have been embraced by the banks in trying to mitigate those risks. It was established that credit, operation, reputation and compliance risks are risks that are encountered commonly and they are critical. Most of the banks have structure for managing risks. The quality of these structures couldn't be ascertained. Most of the banks used qualitative and quantitative techniques to measure risk.

Njeri (2010) did survey on strategic practices of managing risks by large commercial banks in Kenya. The study used a sample size of 13. The main focus of the study was determining strategic practices of managing risks used by the large banks and the challenges faced by these banks in their strategic risk management practices. The study found out that banks have adopted strategic risk management practices and though there was a slight variance in approach between the banks, the most commonly adopted practice centered on strategic risk assessment, evaluation, monitoring, control and reporting. These strategic risk management practices are discussed in the ensuing sections in detail. The researcher recommends that banks invest more in automated strategic risk management tools which would enhance analysis and profiling of their strategic risk. It would also be appropriate to appoint senior managers as the strategic risk champions.

2.6 Gaps to Fill

Researches that were carried out in Kenya did focus of management of credit risk and some of them were management of credit risk by coffee coops in Embu district (Njiru, 2003), investigation of practices of management of credit risk by pharmaceutical manufacturing firms in Kenya (Nduku, 2007) and study of techniques of management of credit risk embraced by MFIs in Kenya (Mwirigi, 2006). Oludhe (2010) did a study on effects of management of credit risk of how commercial banks in Kenya perform financially and established that there was strong effect between components of CAMEL on performance financially. The main focus of the stud was credit risk which one of the components in financial risk. There is a little study which has been carried out specifically in Kenya to determine how the wider management of financial risk impact performance of MFIs in Kenya financially. The researcher has limited evidence on the association of management of financial risk and performance of MFIs financially in the county of Nairobi, Kenya. This study sought to fill the research gap by investigating the association between management of financial risk and performance of MFIs in Nairobi County, Kenya financially.

2.7 Summary of Literature Review

There is a gap in the research because there is no study that focused in detail the relationship between management of financial risk and performance financially of MFIs. Additionally, most of the researches were conducted on credit risk management or on operational risk. Research gaps also exist as this research might provide more literature for examining the theories reviewed. Additionally, most of the research studies were carried out in countries that are developed and therefore there is little information on developing countries. This particular study aimed at filling the research gap by answering the following; is there any

association between management of financial risk and performance of MFIs in Nairobi County financially? This chapter reviewed various theories informing the variables of the study. It also explored conceptualization of the response and the predictor variables through the analysis of the association between the factors. Additionally, the empirical review was conducted where global and local studies were reviewed in reference to their title, scope, methodology and therefore forming a basis for critique. From the critiques, the gaps in the research were established.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The design used in teh study, targeted population, the sample size, sources of data and procedures used to analysed the gathered data an dthe specification of the model were presented in this chapter.

3.2 Research Design

Descriptive research design was adopted. According to Kothari, (2004) this ype of research design includes surveys and enqueries focused on determining facts and that the main aim of this research design is describing events as they are currently existing. It also determines and reports how things are and tries to describe those things like the possible behaviour, attitude, character and value, (Mugenda & Mugenda, 2003). The study also employed a causal study approcah. This approach suggests causal link between variables through teh observation of a phenomenon that exists and search in available data with the aim of identifying plausible causal association. The main concern was to determine cause and impac of the association and comprehend the factors that are response and the predictors. This design was deemed appropriate tol explain whether two factors relate with each other or whether they are different with aid of sufficient information or data to test the cause and impact of teh assocaition. The aim was exploring teh association between management of financial risk and financial performance of MFIs in Nairobi County, Kenya and to help answer the objectives of the study, empirical evidences was also used.

3.3 Target Population

The population that was being investigated constituted of 55 MFIs that were registered and located in Nairobi County, and that were members of AMFI. Secondary sources of data were

applied. In order to determine the association between systems of management of financial risks and MFIs performance financially, the study computed inferential and regression analysis.

3.4 Data Collection

Secondary data was gathered from MFIs financial statements where forms of data collection were used. Data was gathered for the last five years starting year 2013 to 2017 from financial statements of MFIs. The study collected data on non perfrming loans, market interst rate ,total loans to total deposit, capital reserves to total and deposit to tatal assets.

3.5 Data Analysis

SPSS Version 23 was applied in a analysing the collected data. Inferential statistics were computed where multiple regression models was used. In testing the association between management of financial risk and performance financially, the model that was applied was that of logit:

$Yjt = C + \alpha Xjt + \beta Zt + \varepsilon jt$ …….1

j denotes the individual MFI; t is the year; Yjt is a response variable which is ROA for the year t; the C is the intercept; X is the predictor variable which is management of financial risk, while Z stands for other factors that determine financial performance; α and β are co-efficient and εjt is the error term.

3.5.1 Model Specification

The empirical model which was applied in testing the association between management of financial risk and performance of microfinance institution in Nairobi County, Kenya financially, was presented as follows:

$$ROA = C + \beta_1 CR + \beta_2 MR + \beta_3 LR + \beta_4 CM + \beta_5 DETA + \mu \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

Where:

ROA: return on assets for microfinance, which was used to measure financial performance.

CR: is the credit risk for the for microfinance, credit risk in the microfinance was measured using the level of NPLs in the microfinance

MR: is the market risk for microfinance, market risk was measured using the interest rate

LR: is the liquidity risk, liquidity of the bank was measured using the microfinance liquidity Ratio, which was the ratio of total loans to total deposit for microfinance.

CM: is the capital management of the microfinance; its measure was determined using Capital ratio and reserve to total assets by the MFIs

DETA: is the microfinance deposits measured by use of ratio of Deposits to total assets for microfinance

3.5.2 Test of Significance

The joint significance was tested using the F-test while the significance of specific coefficients was tested using t-test. The model was tested at a CI of 95% and significance level of 5%.

3.6 Diagnostic Test

3.6.1 Linearity Test

For linear regression, the association existing between the response and the predictor variables should be linear. It's very crucial that the study checks for outliers because linear regression is sensitive to the effects of outlier (Creswell & Plano-Clark, 2006). The best way to test if the assumption is met is by use of scatter plots. When drawing a scatter plot, the residual values are used and are plotted on the x-axis and also Y values are used which are

plotted on the y-axis. It can be concluded that the linear assumption is met if the plot follows a linear pattern. In addition ANOVA was applied in testing linearity if F== $\frac{R^2(k-1)}{(1-R^2)/(n-k)}$ is significant, it can be concluded that the assumption of linearity has been met.

3.6.2 Normality Test

Normality assumption assumes that the random variables have a normal distribution or they are nearly normal distribution. All statistical tools must have some degree of error which is similar to normality assumption. It's not possible to gather data that is exactly normally distributed. However, most of the phenomenon that occurs naturally follows a distribution that is almost normal. OLS can only be used if the error term is normal (Gujarati, 2004). Shapiro- Wilsk test was used to test for the normality assumption.

3.6.3 Autocorrelation

Autocorrelation is correlating data that is time series in its future and past values. Wooldridge test was applied testing existence autocorrelation. It is likely to find autocorrelation in panel data and for the purpose of attaining model specifications that are correct it is important to account for it. Wooldridge (2002), indicated that failing to account for it will result to standard error that is biased and parameter estimates that are not efficient. Absence of serial autocorrelation will be the null hypothesis. If it is found that there is presence of serial autocorrelation then FGLS procedure of estimation will be used.

3.6.4 Multicollinearity

It is a common thing to see Multicollinearity in time series data because they tend to follow a particular pattern. The study applied the use of correlation matrix in testing Multicollinearity whereby o.8 was considered to be the cut-off point (Cooper & Schindler, 2014). If

multicollinearity is not accounted for, then the regression coefficients obtained will indeterminate and the standard errors will be infinite. If the standard error is large, it affects precision and accuracy of accepting or rejecting the null hypothesis. The main concern was the severity and not its absence. If the coefficient id greater than 0.8 then it suggests that there is severe multicollinearity.

CHAPTER FOUR: DATA ANALYSIS, RESULTS FINDINGS AND DISCUSSION

4.1 Introduction

In this chapter, data analysis, interpretation, presentation of the findings and its discussion based on the data that was collected are presented. The chapter specifically covers the summary of the statistics, the findings based in study's objectives. The findings of the study were discussed by applying the use of descriptive and inferential statistics.

4.2 Summary Statistics

In section 4.2 the study present the research finding on the descriptive statistic of the data collected.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Risk Management	275	.21	.54	.1151	.08743
Deposits	275	.56	.97	.6875	.11784
Capital Ratio	275	.02	.34	.1371	.08046
Liquidity Ratio	275	.25	0.47	.2473	.07589
Valid N (list wise)	**275**				

Source: Author Computation

From the summary obtained in table 4.1 above, financial risk management has a mean of 0.1151, deposits has a mean of 0.6875, capital ratio has a mean of 0.1371, and liquidity ratio has a mean of 0.2473.

4.3 Empirical Model

Multiple regression analysis was conducted with the aim of testing the effect among the independent variables. SPSS version 23 was used in coding, entering and computing of the multiple regressions. This section presents the research findings on the relationship between various independent variables on the regression model and financial performance of microfinance institution in Nairobi County, Kenya.

4.3.1 Model Goodness of Fit Test

Table 4.2: Model Goodness of Fit Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sign
1	.903[a]	.815	.792	.0.0876	.001

Source: Author Computation

The variation in response factor as a result of changes in the presictors are is shwn by the coefficient of determination which is the adjusted R^2. It is clear from the findings that the value of the adjusted R^2 is 0.792 which suggests that at a CI of 95%, 79.2% change in performance of MFIs financially could be explained by variation in management of financial risk, deposit, capital ratoion and liquidity ratio. This implies that variations in financial risk management, deposits, capital ratio and liquidity ratio could account for 79.2% variation in perfprmance of MFIs financially. The association between that variabless being studied are shown by correlation coefficint which is R. ot is evident from the findings that the variables were strongly related as shown bt a R value of 0.903.

4.3.2 Results of Analysis of Variance

Table 4.3: Results of Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Residual	12.823	4	3.206	42.896	.001[b]
	Regression	20.178	270	0.075		
	Total	**33.001**	**274**			

Source: Author Computation

From the finding of the ANOVA table, the processed data had a p-value of 0.001 which implies that the data can be used in making inference of the population this is because the p value was less than 0.05 which is the significance level. The F critical value was less that the F calculated value (42.896 > 2.405) which implies that financial risk management, deposits, capital ratio and liquidity ratio significantly affects financial performance of microfinance institution in Nairobi County, Kenya. It was concluded that the model was statistically significant because the p-value<0.05.

4.3.3 Results of Estimate Model

Table 4.4: Results of Estimate Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	**Constant**	**0.975**	**0.234**		**4.167**	**.002**
	Financial Risk Management	0.247	0.092	.297	2.685	.003
	Deposits	0.311	0.101	.131	3.079	.004
	Capital Ratio	0.297	0.197	.014	1.508	.005
	Liquidity Ratio	0.499	0.174	.212	2.868	.001

Source: Author Computation

The resulting regression model was;

$Y = 0.975 + 0.247 X_1 + 0.311 X_2 + 0.297 X_3 + 0.499 X_4$

The regression equation above shows that holding financial risk management, deposits, capital ratio and liquidity ratio to a constant zero, performance of MFIs financially would be at 0.975. From the table above, financial risk management had a significant coefficient (B= 0.247, p value=0.003). It suggests that management of financial risk positively and significantly impact performance of MFIs financially. Also, deposits had a significant coefficient (B= 0.311, p value=0.004). It suggests that deposits positively and significantly affects financial performance of microfinance institution. Capital ratio had a significant coefficient (B= 0.297, p value=0.005). It suggests that capital ratio positively and significantly impact performance of MFIs financially. Finally, liquidity ratio had a significant coefficient (B= 0.499, p value=0.001). It suggests that liquidity ratio positively and significantly impact performance of MFIs financially.

4.4 Discussion

The findings of the study established that 79.2% changes on financial performance of MFIs could be as a result of changes in financial risk management, deposits, capital ratio and liquidity ratio. The study also revealed strong association performance financially and financial risk management, deposits, capital ratio and liquidity ratio. Furthermore it was eatablished that financial risk management, deposits, capital ratio and liquidity ratio significantly affected performance of MFIs in the county of Nairobi financially.

From the findings, financial risk management had positive significant effect on financial performance of microfinance institution in Nairobi County, Kenya. It concurs with conclusion made by Siba (2012) in his research on association between management of

financial risk and the way Kenyan banks performed financially and revealed that practices of managing risks put in place by the banks were very effective and that the performance of the bank and efficiency in the practices of managing risks are strongly related. In the past years, there has been an increasing attention drawn to management of financial risks; this is because, despite these financial risks not being the main competency for the non-financial companies, they greatly affect the operations of their businesses (Triantis, 2010).

It was established that deposits positively and significantly impact performance of MFIs financially. This is in line with the recommendations of Kargi (2011) who studied credit risk and the way Nigerian banks performed that the management therefore requires to be very cautious in setting credit policies which could have negative impact on profits and they also need to understand the way credit policies impact banks operations to make sure that the deposits are judiciously utilized. According to Devinaga (2010) MFIs greatly depend on finances that are provided by the public in form of deposit in financing loans to clients; the cheapest source of finances to MFIs is deposits and therefore deposits positively affects profitability of MFIs is banks loan demand is high. This implies that the higher the deposits the MFIs are able to collect then the higher their ability to provide loan is and therefore the higher the ability to generate more profits.

It was revealed that capital ratio positively and significantly impact performance of MFIs financially MFIs. This disagrees with Kithinji (2010) who studied management of credit risk and profit making by Kenyan banks by use of NPL portfolio as the response variable and the predictor variables was effectiveness of practices of managing risks and established that

management of credit risk (NPL portfolio), amount of credit and profitability were not significantly related. Vong and Nourzad (2009) capital structure including funds from stakeholders, reserves and profits retained do impact the profit levels of the bank since they impact risk as well as leverage.

It was found that liquidity ratio positively and significantly affects performance of MFIs financially in Nairobi County, Kenya. Ahmed, Akhtar and Usman (2011) did a study on the practices of managing risks in the Islamic Banks and established the management of assets was significantly and positively related with liquidity and risk of operations. The findings concur with findings of Bourke (1989) that concentrations and also other factors determining the profitability of the banks in Europe, North America and Australia showed level of liquidity and profitability were positively related.

4.5 Summary

In this chapter, the findings of the study on the association of management of financial risk and performance of MFIs financially in Nairobi County, Kenya have been captured; the chapter has presented the data in systematic manner from the descriptive statistics, empirical model for the study and findings of the study discussed while relating them to existing literature.

From the findings the study found that changes on performance of MFIs in Nairobi County, Kenya financially can be explained by variation in financial risk management, deposits, capital ratio and liquidity ratio. It was also established that financial performance and financial risk management, deposits, capital ratio and liquidity ratio were strongly related.

The study further found that financial risk management, deposits, capital ratio and liquidity ratio significantly impact performance of MFIs in Nairobi County, Kenya financially.

CHAPTER FIVE: SUMMARY AND CONCLUSION

5.1 Introduction

In this chapter, summary of finding, conclusion and recommendations are presented. It particularly covers summary of the study, conclusion, limitations, and, presents the recommendations.

5.2 Summary of the Study

The main objective of the study was determining the relationship between financial risk management and performance of MFIs financially. Descriptive research design was adopted with the targeted population being a total of 55 MFIs that are located in the County of Nairobi and that are members of AMFI. The study used secondary information that was collected for duration of 5 years from 2013 to 2017 from MFIs financial statements. In order to determine performance of MFIs financially in Nairobi County the study adopted the use of multiple regression analysis.

The study established that 79.2% change in performance of MFIs financially could be explained by variation in management of financial risk, deposit, capital ratoion and liquidity ratio. The study also established that financial performance and financial risk management, deposits, capital ratio and liquidity ratio were strongly related. Furthermore it was eatablished that financial risk management, deposits, capital ratio and liquidity ratio significantly affects performance of MFIs financially.

From the findings, it was established that management of financial risk had positive significant effect on financial performance of microfinance institution in Nairobi County, Kenya. Also deposits had positive significant impact on performance of microfinance institution in Nairobi County, Kenya financially. Further, capital ratio had positive significant

impact on performance of MFIs financially in Nairobi County, Kenya financially. Finally liquidity ratio had positive significant impact on performance of MFIs financially in Nairobi County, Kenya. It was further found that financial risk management, deposits, capital ratio and liquidity ratio have positively and significantly affect financial performance of MFIs in Nairobi County, Kenya.

5.3 Conclusion

It was revealed that variations in performance of MFIs financially could be accounted for by changes in financial risk management, deposits, capital ratio and liquidity ratio. The study therefore concludes that financial risk management, deposits, capital ratio and liquidity ratio determine the performance of MFIs in Nairobi County, financially.

Financial risk management, deposits, capital ratio and liquidity ratio and performance financially of MFIs in Nairobi County, Kenya were revealed to be strongly related. The study also found that financial risk management, deposits, capital ratio and liquidity ratio have positively and significantly affect performance- financially, of MFIs in Nairobi County, Kenya. The study therefore concludes that a unit increase in financial risk management, deposits, capital ratio and liquidity ratio will lead to an increase in financial performance of MFIs in Nairobi County, Kenya.

5.4 Limitations of the Study

This study was restricted on determining the association between management of financial risk and performance if MFIs in Nairobi County, Kenya financially. The study was limited to 55 registered MFIs that were members of AMFI. Only secondary data was used, which was collected for the last five years starting year 2013 to 2017 from financial statements of MFIs

financial reports. The data that was collected was used as it was this is because the researcher had no way to verify the data and therefore it was considered to be accurate. This implies that the findings are subjected to validity of the data that was collected.

The set limit for duration of the study was 5 years which was from 2013 to 2017; however if a longer time was used it could have covered periods with distinct significance in ten economy such as times of recessions and booms. This could have provided a wider focus and therefore a broad dimension to the problem.

The aim of the study was determining the association of management of financial risk and financial performance of microfinance institution in Nairobi County, Kenya. For this reason the other financial institution like insurance companies and MFIs that were not members of AMFI were not incorporated in the study.

5.5 Recommendation

The management of MFIs need to invest more in automated strategic risk management tools which would enhance analysis and profiling of their strategic risk. The study also recommends that MFIs should appoint senior managers as the strategic risk champions this will ensure that the strategies selected to manage risks are efficient.

There is need for the management of MFIs in Kenya to maintain the liquidity level at safe level as it was found that liquidity ratio positively affect performance financially of microfinance institution. Further microfinance institution need to try and find ways in which they can increase their level of equity this will in return lower cost on capital and will have a positive effect on profitability.

There is need for microfinance institution in Kenya to increase their financial risk management, deposits, capital ratio and liquidity ratio as they were found to positively relate with financial risk management, deposits, capital ratio and liquidity ratio and financial performance of microfinance institution in Nairobi County, Kenya.

5.6 Areas for Further Research

A study should be conducted on the challenge facing microfinance institution in Kenya in financial risk management.

A study should be conducted on determinants of financial risk management among microfinance institution in Kenya.

A similar study needs to be conducted on the association between management of financial risk and performance of Insurance Companies and commercial banks in Kenya financially.

Also a study need to be conducted on factors influencing management of financial risk among microfinance institution in Kenya.

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APPENDICES

Appendix I: Data Collection Sheet

	2013	2014	2015	2016	2017
Net profit					
Total Assets					
Non-Performing loans					
Current Liabilities					
Current Assets					
Total Capital					
Reserve					
Interest Rate Cap					
Deposits					

Appendix II: Summary of Data

	ROA	CR	MR	LR	CM	DETA
AAR Credit Services	0.050	0.072	0.323	0.281	0.223	0.097
Ace Capital & Credit Ltd	0.066	0.039	0.296	0.282	0.237	0.756
ADOK TIMO	0.041	0.099	0.292	0.281	0.240	0.684
Agakhan Foundation Microcredit Programme	0.050	0.077	0.319	0.269	0.232	0.366
BCF Kenya limited	0.038	0.071	0.308	0.298	0.221	0.109
Biashara Factors	0.057	0.083	0.251	0.261	0.274	0.228
BIMAS	0.036	0.075	0.273	0.283	0.249	0.534
Blue Limited	0.037	0.057	0.275	0.286	0.246	0.989
Canyon Rural Credit Ltd	0.040	0.061	0.274	0.284	0.248	0.965
Century DTM Ltd	0.031	0.056	0.285	0.281	0.244	0.966
Eco bank TWS	0.063	0.095	0.265	0.276	0.258	0.642
Eclof Kenya	0.036	0.050	0.303	0.314	0.215	0.258
Faulu Kenya DTM	0.040	0.078	0.277	0.288	0.244	0.302
Fusion Capital Ltd	0.037	0.064	0.397	0.241	0.203	0.185
Greenland Fedha Ltd	0.035	0.042	0.263	0.273	0.261	0.080
Indo Africa Finance	0.044	0.058	0.270	0.281	0.252	0.806
Jitegemea Credit Scheme	0.034	0.026	0.287	0.298	0.233	0.691
Jitegemee Trust	0.019	0.038	0.272	0.282	0.250	0.646
Juhudi Kilimo Co. Ltd	0.027	0.056	0.301	0.313	0.217	0.092
KADET	0.035	0.040	0.272	0.282	0.250	0.089
KEEF-Kenya Entrepreneurship Empowerment Found	0.047	0.172	0.173	0.168	0.171	0.192
Kenya Post Office Savings Bank	0.030	0.170	0.172	0.167	0.160	0.179
Kenya Women Finance Trust DTM	0.016	0.182	0.184	0.178	0.171	0.191
K-rep Bank Ltd	0.023	0.181	0.183	0.177	0.170	0.169
K-rep Development Agency	0.024	0.182	0.184	0.178	0.171	0.191
MESPT	0.011	0.179	0.180	0.194	0.186	0.208
Micro Africa Ltd	0.016	0.176	0.178	0.172	0.165	0.185
Micro-ensure Advisory Services	0.002	0.173	0.174	0.169	0.174	0.195
Mini Savings & Loans Ltd	0.004	0.177	0.179	0.173	0.166	0.186
Molyn Credit Ltd	0.008	0.176	0.178	0.172	0.165	0.184
Musoni Kenya Ltd	0.005	0.169	0.171	0.165	0.159	0.177
Ngao Credit Ltd	0.002	0.168	0.204	0.213	0.194	0.216
OIKOCREDIT	0.001	0.162	0.164	0.159	0.152	0.170
One Africa Capital Ltd	0.017	0.182	0.184	0.178	0.171	0.191
Opportunity Kenya	0.018	0.178	0.180	0.174	0.167	0.187
Pamoja Women Development Programme	0.052	0.181	0.183	0.177	0.170	0.190
Platinum Credit Limited	0.051	0.176	0.178	0.172	0.165	0.165
Rafiki Deposit Taking Microfinance Ltd	0.040	0.174	0.176	0.170	0.163	0.183

Remu DTM Ltd	0.036	0.173	0.175	0.169	0.162	0.181
Renewable Energy Technology Assistance Programme(RETAP)	0.053	0.169	0.171	0.165	0.199	0.222
Rupia Ltd	0.036	0.181	0.183	0.205	0.217	0.242
Select Management Services Ltd	0.034	0.178	0.190	0.184	0.177	0.198
SISDO	0.058	0.179	0.181	0.176	0.168	0.167
SMEP DTM	0.037	0.178	0.180	0.174	0.167	0.187
Springboard Capital	0.047	0.177	0.179	0.173	0.184	0.206
Sumac Credit Ltd	0.036	0.176	0.177	0.172	0.165	0.184
Swiss Contact	0.046	0.177	0.194	0.188	0.180	0.202
Taifa Options Microfinance	0.021	0.176	0.177	0.172	0.165	0.184
U&I Microfinance Ltd	0.036	0.176	0.178	0.172	0.165	0.185
Unaitas Sacco Society ltd	0.028	0.177	0.178	0.173	0.166	0.185
Uwezo DTM Ltd	0.022	0.174	0.176	0.170	0.172	0.193
WEEC	0.039	0.175	0.177	0.171	0.164	0.183
Women Enterprise Fund	0.021	0.176	0.177	0.172	0.165	0.175
Yehu Microfinance Trust	0.010	0.176	0.177	0.184	0.177	0.198
Youth Initiatives –Kenya (YIKE)	0.001	0.174	0.176	0.170	0.163	0.169

Appendix III: List of MFIs in Nairobi City County, Kenya

1. AAR Credit Services
2. Ace Capital & Credit Ltd
3. ADOK TIMO
4. Agakhan Foundation Microcredit Programme
5. BCF Kenya limited
6. Biashara Factors
7. BIMAS
8. Blue Limited
9. Canyon Rural Credit Ltd
10. Century DTM Ltd
11. Eco bank TWS
12. Eclof Kenya
13. Faulu Kenya DTM
14. Fusion Capital Ltd
15. Greenland Fedha Ltd
16. Indo Africa Finance
17. Jitegemea Credit Scheme
18. Jitegemee Trust
19. Juhudi Kilimo Co. Ltd
20. KADET
21. KEEF-Kenya Entrepreneurship Empowerment Found
22. Kenya Post Office Savings Bank
23. Kenya Women Finance Trust DTM
24. K-rep Bank Ltd
25. K-rep Development Agency
26. MESPT
27. Micro Africa Ltd
28. Micro-ensure Advisory Services
29. Mini Savings & Loans Ltd
30. Molyn Credit Ltd

31. Musoni Kenya Ltd
32. Ngao Credit Ltd
33. OIKOCREDIT
34. One Africa Capital Ltd
35. Opportunity Kenya
36. Pamoja Women Development Programme
37. Platinum Credit Limited
38. Rafiki Deposit Taking Microfinance Ltd
39. Remu DTM Ltd
40. Renewable Energy Technology Assistance Programme(RETAP)
41. Rupia Ltd
42. Select Management Services Ltd
43. SISDO
44. SMEP DTM
45. Springboard Capital
46. Sumac Credit Ltd
47. Swiss Contact
48. Taifa Options Microfinance
49. U&I Microfinance Ltd
50. Unaitas Sacco Society ltd
51. Uwezo DTM Ltd
52. WEEC
53. Women Enterprise Fund
54. Yehu Microfinance Trust
55. Youth Initiatives –Kenya (YIKE)

Source (Association of Microfinance Institutions AMFI, 2018)