SURVEY OF THE FACTORS DETERMINING PROFITABILITY OF MICROFINANCE INSTITUTIONS IN KENYA

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DECLARATION

STUDENT'S DECLARATION

I declare this research project is my original work and has not been previously published or presented for award of degree in any other university.

....   Date: …………………………

Charles M. Mulandi; D61/8240/06

SUPERVISOR'S DECLARATION

The research project has been submitted for review with my approval as university supervisor.

Signed: …………………………….   Date: …………………………..

Mr. Ng'ang'a

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LIST OF ABBREVIATIONS AND ACCRONYMS

AMFI	-	Association of Micro Finance Institutions
ASCAs	-	Accumulation Savings and Credit Associations
CBK	-	Central Bank of Kenya
KPSOB	-	Kenya Post Office Savings Bank
MFIs	-	Microfinance Institutions
MSEs	-	Micro and Small-Scale Enterprises
NEPAD	-	New Partnership for Africa's Development
NGOs	-	Non-Governmental Organizations
ROSCAs	-	Rotating Savings and Credit Associations
SACCOs	-	Saving and Credit Cooperative Society

ABSTRACT

In a stable political environment and enabling macro economy, microfinance institutions are important in providing savings, credit, funds transfer and other financial intermediation facilities to low income house holds and Small and micro enterprises. Effective longterm provision of these facilities occurs through microfinance institutions.

In recognition that profitability is a necessary condition for microfinance institutions to scale up to a level that allows them to provide microfinance to a large client base independent of external subsidies over the long term, this paper investigates and documents the factors that determine the profitability of Microfinance Institutions in Kenya by analyzing unique firm level data set of the MFI's performance.

The research applied ordinary least squares to an analysis of multiple correlation and regression consisting of cross sectional data that captured various features of selected microfinance institutions in Kenya to identify the factors that determine the profitability of MFIs in Kenya and the extent to which the identified factors explain the profitability

From the findings of the study, all the independent variables studied i.e.; capital size, size of deposit liabilities, size of credit portfolio, composition of credit portfolio, labour productivity , Information Technology employed, risk level, size of the MFI ,ownership of the MFI, Ownership Concentration, Control Ownership Disparity and Structural Affiliation of the MFIs all affect the profitability of the MFIs. All the variables were found to have a positive correlation with the profitability of the MFIs.

The degree of relationship between the independent variables and profitability varied among the variables with the size and composition of credit portfolio, capital size and size of deposit liabilities having the strongest positive relationship with profitability where as Control ownership disparity and size of the MFI were found to have the weakest positive relationship with profitability of the MFIs.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

The importance of the factors determining Microfinance institutions' profitability can be appraised at the micro and macro levels of the economy. At the micro level, profit is the essential prerequisite of a competitive financial institution and the cheapest source of funds. It is not merely a result, but also a necessity for successful banking in a period of growing competition on financial markets. Hence, the basic aim of microfinance's management is to achieve a profit, as the essential requirement for conducting any business (Bobáková, 2003). At the macro level, a sound and profitable financial sector is better able to withstand negative shocks and contribute to the stability of the financial system. The importance of microfinance institutions' (MFIs) profitability at both the micro and macro levels has made researchers, academicians, managements and regulatory authorities to develop considerable interest on the factors that determine micro finance institutions' profitability (Athanasoglou *et al*., 2005).

Mcdonald (1999) suggests that the environment in which financial institutions operate influences their operations and hence their profitability. As Staikouras and Wood (2003) posit financial market structure, the economic condition of the country, the legal and political environment all may influence the performance of MFIs. Since MFIs mostly deal with credit facilities, the size of credit portfolio influences their profitability i.e a large credit portfolio imply improved profitability. However, since substandard credits are a source of heavy financial losses to financial institutions and have actually been held responsible for numerous financial institution failures, the degree of risk of the credit portfolio need to be well managed (Olajide, 2006). The stability of political environment and an enabling macro economy may also directly or indirectly affect the profitability of the MFI.

Microfinance from the works of McKinnon (1973) and Shaw (1973) in finance for development

gained importance especially as a tool for development in developing countries. According to Ledgerwood (1999), Microfinance has evolved as an economic development approach, intended to benefit low-income people. The term may also refer to the provision of financial services to low-income clients, including the self-employed. Financial services generally include savings and credit; however, some micro-finance organizations also do provide insurance and payment services. In a nutshell, the term microfinance could be defined as not simply banking; rather it involves making financial resources available to the productive poor. Fries *et al*. (2002) argue that for microfinance to perform a creditable function as a poverty reduction and development tool, good performance in terms of profitability is of critical importance.

Microfinance is in actual fact an age-old practice, intended to reach out to all those who have not fully benefited from the development process. For such group, investments should be financed through own savings, equity or credit. Empirical evidence establishes that less than 15 per cent of the population in developing countries has access to the mainstream financial services (Aryeetey 1995). It is in this regard that microfinance is regarded as a strategic tool of poverty alleviation and development in a county.

Micro financing Institutions (MFIs) are defined as institutions whose major business is the provision of microfinance services. Their aim is to become sustainable and expand their microfinance services. Microfinance is the supply of loans, savings, money transfers, insurance, and other financial services to low-income earners. MFIs which encompass a wide range of these financial service providers vary in legal structure, mission, and methodology and offer these financial services to clients who do not have access to mainstream banks or other formal financial service providers. Micro-finance institutions offer loans and/or technical assistance in business development to low-income community in developing countries (Olajide, 2006).

Microfinance has established itself as an integral part of financial sector policies of emerging and developing countries in the past decade. In the field of international finance, it is renowned for its bottom-up approach, because of the main role of Non-Governmental Organizations (NGOs) in the launching and the development of the sector, with the financial support of donors. According to Gentil et al. (2000), a classification of the sector is done by mapping the institutions in two

axes: the profit motive (profit vs not-for-profit) and the decision-making style (centralized vs un-centralized).

Microfinance is not a recent phenomenon in Kenya; This is due to the fact that some of the current informal sector practices such as money lending, Rotating Savings and Credit Associations (ROSCAS), date back to ancient societies in Kenya and elsewhere (Aryeetey and Gockel, 1991). The Kenyan microfinance sector began in the late 1960s with a few NGOs that set up pilot programs providing donor funded credit services. Some of these organizations have evolved over time to become commercialized, self-sustaining and hugely profitable institutions. Microfinance is also rapidly becoming Kenya's most accessible and affordable financial service.

Micro finance is provided by formal commercial banks and KPSOB, semi formal savings and credit co-operatives, MFIs and informal institutions such as accumulation and rotating savings and credit associations (ASCAs and ROSCAs), shopkeepers and money lenders. As at 31st December 2007, 4 mainstream commercial banks namely Equity, Co-operative, K-Rep and Family Bank were undertaking microfinance business in Kenya. Several other commercial banks including the foreign-owned such as Standard Chartered and Barclays have shown a lot of interest in the micro finance sector and are down streaming. By 31st Dec. 2007, KPSOB had 1.3 million clients and 11.54 billion savings, while 5,122 SACCOs had been registered with an estimated 3.3 million members, US$2.39 billion share capital deposits and US$1.64 billion as loans outstanding(Daily Nation 6th April 2010).

The Microfinance Act 2008 of Kenya, seeking to streamline the operation of the Microfinance Institutions in Kenya, addresses licensing provisions, minimum capital requirements and minimum liquid assets, submission of accounts to the Central Bank, supervision by the Central Bank, and limits on loan and credit facilities. It also seeks to protect depositors by requiring that deposit-taking MFIs contribute to the deposit protection fund. The Act sets out the legal, regulatory and supervisory framework for the microfinance industry in Kenya.

The Association of Micro Finance Institutions (AMFI) has 24 institutions comprising of NGOs, companies, trusts, societies and commercial banks. Eighteen of these micro finance institutions operate in Nairobi and have over 750 outlets and a loan portfolio of US$ 63.64 billion, 1.1

million institution savers and 250,000 borrowers. A wide range of financial services are provided by the micro finance institutions ranging from savings and credit facilities, money transfer and micro insurance to the economically active poor low income households and small micro scale enterprises in both rural and urban areas, using innovative delivery methodologies and channels which ultimately contribute to poverty eradication(Daily Nation 7th April 2010).

1.2 Statement of the Problem

Since MFIs offer a new approach to alleviating poverty, their importance is growing. In fact, their growth has been nothing short of spectacular. At the end of 1997, MFIs had 13.5 million clients worldwide. By December 2005, the number had grown to 113.3 million, 81.9 million of whom could be considered very poor (Daley-Harris, 2006). This represents a growth rate of 739.3 per cent over the eight-year period. The United Nations declared 2005 the International Year of Micro credit. In addition, the Nobel Peace Prize for 2006 was awarded to Muhammad Yunus, microfinance pioneer and Founder of the Grameen Bank.

The factors determining profitability of financial institution have been widely studied theoretically and empirically. The studies can be grouped into two; those that have focused on a particular country (Berger *et al*., 1987, Berger, 1995, Barajas *et al*., 1999 and Naceur and Goaied, 2001) and those that have focused on a panel of countries (Haslem, 1968, Short, 1979, Bourke, 1989, Molyneux and Thornton, 1992 and Demirgüç-Kunt and Huizinga, 1999). Based on the findings of these and other related studies, the factors that determine financial institutions' profitability comprise characteristics of individual firms that affect their profitability. Bashir (2000) in his study found that Islamic MFIs profitability measure respond positively to the increase in capital and loan ratios. His findings also indicate the importance of customer and short term non-interest earning assets and overheads in promoting a MFI's profits. Most of these studies were done on firms in developed countries whose strategic approach and financial footing is not similar to that of Kenya hence the need to study the factors determining profitability of MFIs in the Kenyan context.

In Kenya a few studies have been done on the determinants of the financial institution's

profitability. The Central Bank of Kenya (CBK) Annual Report (2001) established that revenue sources of MFIs were from credit extended to various individuals and organizations. Kilonzo (2003), studied the Effect of Changes in Interest Rates on Credit Granted by Financial Institutions in Kenya. His findings show that interest rates have no significant effect on the amount of credit granted by the institutions in Kenya between 1992 and 2003. According to Ndung'u (2003), sound asset and liability management have significant influence on profitability of a financial institution. Among the external factors, high market interest rate was found to have an adverse effect on financial institutions profitability in Kenya. On the other hand, market share was found to have a positive impact on profitability.

While the previous researches have sought to discover determinants of MFI profitability in developed countries, little research has been done in the Kenyan context which is a developing country. The studies that have been done in Kenya have not been exhaustive enough i.e. have only investigated how factors like interest rate, credit granted and asset and liability management affect the profitability of an MFI, while other factors determining the profitability of an MFI like firm's size, state of information technology and management quality have not been studied. A knowledge gap therefore exists on the exhaustive survey of the factors that determine the profitability of the MFIs in Kenya. This study will, therefore seeks to exhaustively investigate and document the factors determining MFI profitability in Kenya by providing new evidence on the factors determining profitability of Kenyan Microfinance Institutions by analyzing a unique firm-level data set of firm performance which will be quite different from the previous studies that dwelt on external factors that the firms do not have much control over. The focus of this research is therefore to add on to the existing literature on the determinants of profitability of MFIs in Kenya.

1.3 Objectives of the Study

(i) To investigate the factors that determines the profitability of MFIs in Kenya.

(ii) To determine to what extent the identified factors explain the profitability of MFIs in Kenya.

1.4 Importance of the Study

This study will be of great importance to MFI managers, policy makers, researchers, academicians as well as share holders of MFIs in the following respects.

MFIs Managers

The study will answer the questions on why some MFIs in Kenya are more successful than others and to what extent are discrepancies in these MFIs' profitability due to variations in endogenous factors under the control of their management. Answers to these questions are vital for the development of effective strategies aimed at eradicating distress and enhancing profitability of MFIs operating in the Kenya.

Policy makers

By researching on the factors determining the profitability of MFIs in Kenya, the study will have important policy implications and thus will help MFIs regulatory authorities in Kenya determine future policies and regulations to be formulated and implemented towards improving and sustaining MFI sub-sector profitability and stability.

Researchers and Academicians

The study will add on the Kenyan literature on the determinants of the MFIs profitability, therefore, it will fill an important gap in the existing literature and improve the understanding of researchers' and Kenyan scholars' knowledge on MFIs profitability in Kenya.

Shareholders

Finally, the outcome of this study will be of tremendous importance to the shareholders and managements of MFIs in Kenya who are interested in making effective decisions that will help to boost the profitability of their respective microfinance institutions.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the information from other researchers who have carried out their research in the same field of study. The specific areas covered here are roots of micro finance, theories of Micro Finance Institutions, microfinance institutions (MFIs) in Kenya, criticism of microfinance institutions, informal financial institutions, origin of MFIs in Kenya, theoretical and empirical view of MFIs, profitability of MFIs and determinants of profitability.

2.2 Roots of Micro Finance

Micro finance institutions have been rightly referred to as "back to the basics of banking" and have evolved over many years worldwide. They started as community banks, merry-go-round groups and other small-pooled funds aimed at serving the interest of small groups of people. Some of the countries where MFIs have led to prosperity of micro-enterprises are Brazil, Bangladesh, Ecuador and a number of other South American countries (Naceur, 2003).

The micro finance revolution began with independent initiatives in Latin America and South Asia starting in the 1970s and has so far allowed 65 million poor people around the world to receive small loans without collateral, build up assets and buy insurance (Beatriz Armedariz 1998)

Micro finance is emerging as an integral part of the new development paradigm described by the phrase "Participation and development" and the idea has become popular among donor agencies and development practitioners who regard it as a poverty alleviating tool. Currently there are about 7000 micro lenders who serve about 25 million micro entrepreneurs all over the world, most of whom are poor women in rural areas (Pear and Philips, 2001)

The Micro finance idea became popular in the development discourse of the early 1980's when the currently famous Grameen Bank was founded in Bangladesh. The Micro-credit provided by micro finance institutions have five features that distinguish them from credit applied by conventional financial institutions. The loan size is small, the primary customers of these loans are the rural poor, women in particular who have little access to conventional banking facilities, the purpose of these loans is to create income generating activities, tangible collateral is not required to taking this kind of loan and the micro finance ventures have integrated loaning and savings mobilization functions (Elahi.K 2004)

The micro finance idea which meets the poor people's needs for small loans through private people is as old as the recorded history of humanity. There are however several features of the current micro finance movement that differentiates it from the traditional informal credit facilities. First the micro finance movement is a Non-governmental Organization (NGO) approach to poverty alleviation. NGOs have their origin in nonprofit value based voluntary organization (Hall and Korten 1987). Unlike the traditional informal credit agencies the micro credit lenders do not have profit motives. The micro credit movement is also non-judgmental. For years charity organizations helped the poor with small loans under the assumption that their poverty was due to personal failings (Robson 1997). The current NGO approach is different from the theory of personal failure because it believes that poverty is created through social processes that deprive the poor of access to social resources. One of these social resources is credit which micro finance institutions treat as a human right. Micro finance leaders believe that they can inspire social and economic revolutions in the third world by organizing the poor under the banner of Grameen type MFIs (Carr & Tong, 2002)

While conventional banks normally serve larger enterprises and wealthier clients in urban areas, MFIs consists exclusively the poor household and very small enterprises in rural and informal sectors (Haper 1998, Ledgerwood 1999, Remenyi 2000). MFIs intend to become self financed and end their dependence on external assistance. Micro finance is about profitable banking with the poor and therefore subsidized credit and subsidized banking with the poor are inimical to best practices in micro finance (Remenyi 2000). The ultimate objective of the micro finance venture

is therefore to be self funded.

Micro finance refers to profit-making financial ventures that intend to serve the poor. Because there has not been sufficient ways to regulate the business practices of MFIs, the international donor community has helped third word countries to establish Para-state credit agencies from the 1970's (Remenyi 2000). The capital required for establishing private financial ventures are equity capital supplied by the main owners of these ventures and share capital collected from the members of the public. Individuals interested in micro finance enterprises have little equity capital and they can expect little public interest in investing in their business. It is also unlikely that MFIs would prove profitable at the onset. Because of this MFIs need assistance from private and public donor agencies for capital as well as for running the micro-lending operations especially in the initial stages.

In order to justify this assistance, MFIs are required to give two kinds of rationale, social and economic. From the social perspective, MFIs need to show that they are different from traditional informal creditors. Owning to vast differences in education and wealth, micro-lenders should not be as greedy as traditional bankers in doing business with the poor (Ledgerwood 1999). The economic rationale demands that; the would be entrepreneurs should be helped with outright grants or low interest loans but the reality is different.

Micro credit involves the extension of very small loans (micro loans) to those in poverty designed to spur entrepreneurship. These individuals lack collateral, steady employment and a verifiable credit history and therefore cannot meet even the most minimal qualifications to gain access to traditional credit (Yunus, Muhamed,2003). Micro credit is part of microfinance which is the provision of a wider range of financial services to the very poor.

Micro credit is a financial innovation that is generally considered to have originated with the Grameen bank in Bangladesh. In that country, it has successfully enabled extremely impoverished people to engage in self employment projects that allow them to generate an income and in many cases begin to build wealth and exit poverty. Due to the success of micro credit many in the traditional banking industry have began to realize that these micro credit borrowers should more correctly be categorized as   pre-   bankable,   thus   micro   credit   is

increasingly gaining credibility in the main stream finance industry and many traditional larger finance organizations are contemplating micro credit projects as a source of future growth, even though everyone in larger development organizations discounted the likely hood of success of micro credit when it was begun. The United Nations declared 2005 the international year of micro credit (Wood,1997).

The origin of micro credit in its current practical incarnation with attention paid by economists and politicians worldwide can be linked to several organizations founded in Bangladesh especially the Grameen Bank in the 1970's and onward for which its fonder Muhammad Yunus was awarded the Nobel peace prize in 2006(Anad,2006).

In the past few years, savings led microfinance has gained recognition as an effective way to bring very poor families low cost financial services. For example, in India, the National Bank for Agriculture and Rural Development finances more than 500 banks that on-lend funds to self help groups which comprise mainly poor women. The self help groups invest the funds in small businesses or farm activities. Nearly 1.4 million self help groups comprising of approximately 20 million women now borrow from banks which makes the Indian self help group bank linkage model the largest micro finance program in the world. Similar programs are evolving in Africa and south East Asia with the assistance of organizations like opportunity international, catholic Relief services, CARE, Oxfam, and APMAS(Yunus,Muhamed,2003) .

Micro credit is not only provided in poor countries but also in one of the world's richest countries, the USA where 37 million people (12.6%) live below the poverty line. Grameen bank has also started its operations in New York in April 2008.According to economist Jonathan Morduch of New York university micro loans have less appeal in the US because people think it is too difficult to escape poverty through private enterprise. Other developed countries in which the micro finance model is in fact gaining impetus include Israel, Russia, and Ukraine, where micro loans given to small business entrepreneurs are also used to overcome cultural barriers in the mainstream business society. Even so, efforts to replicate Grameen style solidarity lending in developed countries have generally not succeeded due to difficulties in reaching the target market, the high risk profile of clients, their general distaste for the joint liability requirement

and high overhead costs.

Micro finance has thus become a buzzword of the decade, raising the provocative notion that even philanthropy aimed at alleviating poverty can be profitable to institutional and individual investors. Billionaires, global leaders and Nobel Prize recipients are hailing these direct loans to uncollateralized would be entrepreneurs as a way to lift them out of poverty while creating self sustaining business (Forbes magazine)

2.3 Theories of Micro Finance Institutions

Micro finance theoreticians have advanced two theories regarding their aims – an economic and a psychological. The economic theory treats MFIs as infant industries while the psychological theory differentiates MFIs from traditional money lenders by portraying them as "social consciousness driven people" (Remenyi 2000). The gist of the economic argument is that success in any business venture including MFIs is determined by the entrepreneurs ability to deliver appropriate services and profitably. However studies conducted in different parts of the third world show that there are no successful MFIs by this definition, some cover their operating cost while others can cover part of their capital employed. This situation suggests that the MFIs will not become financially viable in the long run.

One solution to this problem is to treat MFIs as infant industries so that micro lending business can be subsidized during their initial stages of operation. This subsidization would be beneficial to both the economy and society because it will help micro lenders realize economies of scale and the productivity that comes with profitability (Harper 1998).

The psychological component of the micro finance/credit theory known as social consciousness – driven capitalism has been advanced by the most ardent promoter of micro fiancé, Mohammed Yunus (1998). His theory argues that a species of profit making private ventures that cares about the welfare of its customers can be conceived. In other words, It is possible to develop capitalist enterprises that maximize private profits subject to the fair interests of their customers.

The rationale of the theory is straight forward. Although altruism is not totally absent, capitalism

is founded mainly on the premise that human beings are selfish by nature. Accordingly individuals interested in business are naturally motivated by the principle of profit maximization with little consideration for the interests of their clients. This premise is too limited to be a general model for capitalism, however because it excludes individuals who are concerned about the welfare of their fellow human beings. A more generalized principle would assume that entrepreneur maximizes a bundle consisting of financial return or profit and social return. This assumption creates three groups of entrepreneurs (Ehahi, 2002). The first group is the traditional capitalists who mainly maximize financial return or profit. The second group is the philanthropic organizations (like the traditional micro credit NGOs) and public credit agencies that mainly maximize social returns. The third group consists of entrepreneurs who combine both rates in making investment decisions under the additional constraint that financial return should not be negative. This group includes the micro finance enterprisers who are to be treated as a social consciousness driven capitalistic enterprise. If this generalized principle is accepted then these socially concerned individuals can be encouraged to accomplish many socially desirable activities in capitalist economies. In this system, society's predominant means of improving the plight of the poor is not private, public or corporate charity but rather doing business with the poor in a way that gives them the opportunity to earn at least a small financial and a much larger social return. (MuhammedYunus 1998)

Micro finance is part of a mega project that proposes to add a new chapter in the theory of capitalism. As noted this project is founded upon economic and psychological ideas. The economic idea is the orthodox infant industry argument that justifies protectionist measures within the frame work of the classical theory of free trade. The psychological idea is a criticism of the capitalist entrepreneurs profit maximizing motive. The psychological and economic arguments therefore need critical evaluation to judge the academic virtue of the micro-finance theory (Smith 1976)

National development is the fundamental objective of trade policy and accordingly international trade theory and policy are basically founded on a normative criterion that seeks to improve the economic health of society. Trade policies either facilitate or impede the flows of voluntary exchanges of goods and services between nations undertaken by private nationals. Free trade

policy is used to describe government measures that facilitate these exchanges and any government measure aiming to do the opposite are referred to as protectionism. It follows that international trade revolves around free trade and protectionism both of which seek the same objective, national development (Weinstein, 2001)

Historically protectionism is regarded as conservative economic idea that precedes the liberal economic idea of free trade, (Ellsworth, 1950). The original protectionist argument is mercantilism and the infant industry argument was developed to accommodate mercantilist sentiments within the framework of smith's liberal economic theory. Since the infant industry argument has been invoked to justify the establishment of the micro finance industry in the third world, it is in order to appreciate such features of mercantilism as regulation of foreign trade, promotion of domestic industries by inducing cheap raw materials imports, discouragement of imports through custom duties and encouragement of exports by exempting them from such duties (Blang, 1978) . The Psychological and economic arguments form the theoretical premises of the micro finance theory and there has been a lot of controversy and academic skepticism about the theories. Since capitalism prime mover is human selfishness, then social consciousness can not be a motivating factor for undertaking private business activities in capitalist economies. Micro finance is also motivated by similar factors (Mill 1961). The current micro finance revolution is founded on the promise that conventional banks in third world countries are prejudicial against the poor. (Yunus 1996, Remenyi 2000) Critics argue that the poor posses different kinds of skills that they can use for generating income through self employment. The ability to create self employment however depends upon their access to credit facilities. Unfortunately conventional banking policy severely restricts poor people's access to formal financial institutions. This banking policy deprives the poor of their right to make a living through self employment and forces them to borrow money from informal lenders at exorbitant rates of interest and the consequences are perpetuation of poverty in third world countries. This has led to the establishment of the micro finance industry and the micro lenders seem to have a comparative advantage over the conventional banks in rendering their financial services to the poor (Meir 1968, Myrdal 1956)

2.4 Microfinance Institutions (MFIs) In Kenya.

Microfinance Institutions (MFIs) are defined as institutions that engage in relatively small financial transactions using various methodologies to serve low income households, micro enterprises, and others who lack access to the traditional banking system. MFIs may be informal, semi-informal (registered but not under Central Bank regulation and supervision) or formal financial intermediaries. The key objective of the MFIs is to provide micro credit and other financial services like savings to the otherwise excluded poor people and help alleviate their poverty. Micro finance has been recognized as one of the most important tools for poverty alleviation (Sapienza, 2004).

The micro-finance sector sometimes falls in to informal finance sector which can be described as that part of the economy in which financial activities take place which are not officially regulated or monitored. The principal reason for the emergence of an informal financial market is the unwillingness of the formal financial sector to lend to some relatively risky category of investors. Increased risks often stem from the difficulty to obtain accurate and reliable information about borrowers (La Porta *et al*., 2002) Factors that hinder the flow of accurate information include geographical remoteness and illiteracy, among others. In addition, small clients are also shut out from the formal financial market due to high collateral requirements and high minimum deposit requirements. The main clients of informal finance are informal firms and relatively small formal ones, although informal credit is to some extent demanded by firms of all sizes. Another reason for the emergence of informal financial activities can be attributed to liquidity shocks (Bashir, 2000). In such cases more funds can be raised at a lower cost and without collateral when the source is a relative or friend (informal finance).

Interest rates in the informal financial sector tend to be higher than in the formal financial sector. Aleem (1990) argues that lenders sometimes borrow from the formal financial market themselves and lend on at an even higher interest rate. The comparatively higher cost of funds is attributed to large cost of monitoring and administering formal contracts, higher risks, and costs of delinquency, although according to a study by Steel et al (1997), the loan portfolios of the informal lenders had a comparatively lower delinquency and default risk. This is because unlike

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commercial banks, informal lenders use personal, social and business relations to pre-select clients. Informal finance is sometimes taken as synonymous with moneylender activity, but Steel et al (1997) show that informal creditors may give loans that bear low interest and social and economic ties replace collateral as well as ease enforcement of the loan contracts. The relationship between the borrower and the creditor reduces moral hazard and hence the monitoring costs.

While the use of informal finance may not be widespread or constitute a large part of total debt portfolios, there are indications that borrowing from informal sources has gained importance for some segments of the Kenyan manufacturing sector. Generally, though, informal credit is used when short term credit (such as overdraft facilities) has not been acquired. It has been shown that firms, which have obtained credit from other sources, are less likely to seek informal loans. That is, such firms do not demand informal loans to the same degree as firms that have been denied formal loans. Thus informal finance is a substitute, not a complement for other forms of credit (Berger *et al*., 2000). However, substitution is not for short-term credit (such as overdraft), but for long-term loans and advance payments from clients.

Micro Finance institutions in Kenya are not regulated under the Banking Act, save for some which have embraced most of the formal banking practices, most of the MFIs are not subjected to the continuous Central Bank of Kenya's supervisory activities as well as the prudential guidelines. Thus, since they do not abide by the laid down formal prudential guidelines, they exhibit a greater extent of informality in their operations. In deed it's the informality of MFIs that led Kenya Bankers Association to petition the government on several occasions to introduce legislation to regulate them so as to provide fairness to all institutions in the financial sector (Sunday Nation, 30 May 2004, Page 20). The Kenya Bankers Association pointed out that the unregulated mushrooming of MFIs was a potential risk to the stability of the financial system because they operated without any standard prudential guidelines.

Microfinance institutions focus on clientele that have little access to the formal lending institutions in the country. For example, Kenya Women Finance Trust (KWFT) aims at strengthening women's participation in the economic mainstream through lending to women

owners of micro-enterprises and providing the requisite training. Similarly, K-Rep Bank targets low-income people who borrow small without collateral save for the requirement to be a member of a group which security of the loan emanates (Daily Nation 5th April 2010). Despite MFIs tendency of being semi-formal in their dealings, they still have the same primary objective of serving the poor and unbanked people in the society just as other forms of informal finance. Sometimes MFIs do prefer to deal with groups rather than individuals. Once a group has been formed and started viable business (es), they can easily access credit from an MFI. The main reason for this is that there is rarely need for collateral but the group members acts as the safeguard against individual members default.

The rapid changes in the business environment have led to the increase in resource productivity, increasing level of deposits, credits and profitability and decrease in non-performing assets. However, the profitability, which is an important criteria to measure the performance of financial institutions in addition to productivity, financial and operational efficiency, has come under pressure because of changing environmental requirement of safe custody of money. Therefore, an efficient management of MFIs' operations aimed at ensuring growth in profits and efficiency requires up-to-date knowledge of all those factors on which the bank's profit depends (McDonald 1999).

There has been a huge volume of literature to date that has sought to identify the determinants of firm's profitability and researchers in the area have increasingly relied on firm-level panel data sets to establish empirical relationships (McDonald J, 1999). Short (1979) and Bourke (1989), argued that financial market structure and entry barriers constitute the main external force driving financial institutions' profits. However, more recent studies distinguishing managerial (internal) from environmental (external) factors treat financial market structure (represented by regulatory conditions or concentration) as just one of a number of external influences that affect financial institutions' profitability, to include trade interdependence, economic growth, inflation, market interest rates and ownership. Among the internal, management controllable factors are MFIs specific financial ratios representing cost efficiency, liquidity, asset quality, and capital adequacy. Like this study, studies of the determinants of profitability of firms in Kenya have largely been restricted to the analysis of one or two cross-sections of industry-level data

(Kilonzo, 2003 and Ndung'u, 2003). As a result, a number of important issues that have arisen in the overseas industrial organization literature concerning the determinants of firm profitability have not as yet been studied in the Kenyan context.

The purpose of this study is to provide new evidence on the factors determining profitability of Kenyan Microfinance Institutions by analyzing a unique firm-level data set of firm performance which will be quite different from the previous studies that dwelt on external factors that the firms do not have much control over (Clarke *et al*., 2000). The study will thus look at the profits of MFI, capital size, size of deposit liabilities, size of credit portfolio, composition of credit portfolio, labour productivity, state of IT, risk level, size of MFI, ownership of MFI, ownership concentration of MFI, control-ownership disparity and structural affiliation of MFI

2.5 Criticism of Microfinance Institutions.

Gina Neff of the Left Business Observer has described the micro credit movement as a privatization of public safety-net programs. Enthusiasm for micro credit among government officials as an anti-poverty program can motivate cuts in public health, welfare, and education spending. Neff maintains that the success of the micro credit model has been judged disproportionately from a lender's perspective (repayment rates, financial viability) and not from that of the borrowers. For example, the Grameen Bank's high repayment rate does not reflect the number of women who are repeat borrowers that have become dependent on loans for household expenditures rather than capital investments. Studies of micro credit programs have found that women often act merely as collection agents for their husbands and sons, such that the men spend the money themselves while women are saddled with the credit risk. As a result, borrowers are kept out of waged work and pushed into the informal economy.

Many studies in recent years have shown that risks like sickness, natural disaster and over indebtedness are a critical dimension of poverty and that very poor people rely heavily on informal savings to manage these risks (Rahman,2001). It might be expected that microfinance institutions would provide safe, flexible savings services to this population, but they have been very slow to do so. Some experts argue that most micro credit institutions are overly dependent

on external capital. A study of micro credit institutions in Bolivia in 2003, for example, found that they were very slow to deliver quality micro savings services because of easy access to cheaper forms of external capital. Global data tables from *The Micro banking Bulletin* show that savings represent a small source of funds for micro credit institutions in most developing nations.

Because field officers are in a position of power locally and are judged on repayment rates as the primary metric of their success, they sometimes use coercive and even violent tactics to collect installments on the micro credit loans. Some loan recipients sink into a cycle of debt, using a micro credit loan from one organization to meet interest obligations from another (Morduch,Jonathan,1999).

Some microfinance institutions use excessive interest rates. In recent years, there has been increasing attention paid to the problem of interest rate disclosure, as many suppliers of micro credit quote their rates to clients using the flat calculation method, which significantly understates the true Annual Percentage Rate (Fraser Ian.2007)

Although the stated objective of micro finance movement is national development and poverty alleviation it is neither theoretically nor empirically clear how much the micro lenders can help improve the situation in the third world (Meir 1968). The micro lending idea was conceived in the mid 1970s as a solution to severe poverty prevalent in the third world countries. This suggests that society will have little use of micro finance lenders once this problem is solved. The micro finance theory seems to be apparently grounded on the idea that poverty is a perpetual condition of human society and these micro lenders might work to perpetuate poverty in society for their continual existence (Allen 1987). In other words the potential consequence of the establishment of micro finance industry in the third world could be the creation of private groups that might have vested interests in the perpetuation of poverty.

2.6 Informal Financial Institutions

There are numerous types of informal finance in the world with different names for example Money lenders, Merchants, Loan Brokers, Landlords, lending among friends, relatives and

neighbours, Rotating Saving and Credit Associations (ROSCAs) and Savings Groups. Each of these serves specific clientele with unique needs (Aleem,1990).

2.6.1 Lending Among Relatives, Neighbours and Friends

Borrowing from socially close lenders within the moral economy is often the first resource that poor households have in financing expenses; especially those related to essential consumption expenditures. Transactions are collateral-free and in most cases, interest is not charged. These are essentially informal mutual aid schemes that have the principle of reciprocity at the core of transactions. Both the lender (deposit taker, or insurance provider) and the client gain from the transaction, and the process is self-sustaining. The borrower is able to finance urgently needed expenditure quickly and with few transactions cost: a lengthy appraisal process does not exist, little or no paperwork or travel time is involved, and the terms of transactions are well understood. The lender gains a right to reciprocity in that she or he can lay claim to in the future. Furthermore, the risk of loan discovery is at a minimum since the lender only lends to person who are part of her or his social network, within which contracts can be enforced (Athanasoglou *et al*., 2005). For each partner, therefore, the long-term gains associated with maintaining borrowing privileges is greater than the short-term gain of reneging on the pay back. Such social capital and informal financial contracts can be exploited and used through the formation of member-based institutions.

2.6.2 The Rotating Credit and Saving Associations (ROSCAS)

These are found in many countries and are also networked-based. These associations, which may even operate under a designated, sometimes remunerated manager, pool savings from members each period and rotate the resulting pot among them using various rules. The process is repeated until the last member receives the pot. Because of the rotation rules, these schemes are less suited to address household's risk unless the timing of the receipt coincides with unexpected events. Other ROSCAs auction the fund. Still some others allow the fund to be paid out earlier in times of crisis of one of its members, at times requiring a premium payment. Also,

unlike demand deposits, once the saving is committed, it cannot be withdrawn immediately and the member is required to wait her turn (Kwan and Eisenbeis 2005). The main purpose of a ROSCA is to accumulate savings and channel this to the borrowers in some pre-specified order, thereby fulfilling an important intermediation function. Informal financial self-help groups exist in many countries, and have inspired to some extent the innovations in solidarity group lending as well as linkage banking.

2.6.3 Informal Money Lenders and Pawn Brokers

Typically, they are approached when the amount demanded (loan amount), its timing and sometimes need for confidentiality cannot be fulfilled by socially close lenders, such as friends, neighbours, or ROSCAs. Money lenders charge explicit interest rates in order to obtain real positive returns on their capital. In fact, interest rates are usually high, and real rates in the range of 5-10 percent per month are common (Kwan and Eisenbeis 2005). Typically, moneylenders lend only to households about whom they posses enough information. However, they may also lend to others about whom they posses less information if punitive actions against those that default are feasible. Lending may be either secured by physical collateral or by social collateral, such as third party guarantees or loss of reputation in ones social network. These collateral substitutes are effective in sustaining the informal lending business because contracts enforcement is legitimized by social norms (Athanasoglou *et al.*, 2005). Member based institutions, such as village banks, groups and savings and credit cooperative get advantage over socially distant banks in using social capital for the enforcement of their contracts. Also deposit-taking institutions have a comparative advantage in using informal enforcement mechanism compared to institutions that lend "cold" money.

2.6.4 Tied Credit

Informal, but socially and/or spatially distant lenders frequently tie their loans to complementary transactions in land, labor or commodities as they lack adequate information about the credit worthiness of the borrower or suitable physical or social collateral. Thus, traders disburse input

and consumption credit to farmers in exchange for the right to market the growing crop; shopkeepers increase sales by providing credit for food, farm inputs, and household necessities; and landowners secure access to laborers to whom they lent in the hungry season (Athanasoglou *et al.*, 2005).

The important feature of these types of transactions is that the lender also deals with the borrower in a non-lending capacity and is able to use this position to screen applicants and enforce contracts at relatively low transactions costs compared to a pure money-lending contract. In the complimentary non-financial contract, the lender often exercises near-monopoly power (such as often occurs between landlord and tenant or employer and laborer) that may feature usurious, i.e. monopolistically priced interest rates. State-owned marketing boards that monopolize agricultural input supply and output marketing have frequently used tied credit. It is also used by agribusiness processing firms that control critical bottlenecks in the production or marketing of agricultural and often perishable products (Berger *et al*., 2000). However, the deregulation and liberalization of agricultural markets has reduced the scope of using tied contracts as collateral substitute in rural lending.

These four informal institutions provide valuable financial services, and much may be learned from them. Lending among family members and friends as well as ROSCAs may bear a high risk for poor people, for example with respect to default or social exclusion. Information tends to be segmented and to circulate within specific groups or networks excluding others (Robinson 2001). Communities can be driven by vested interest of local elite (Bashir, 2000). Moreover, all of the above institutions have serious limitations with respect to term and size transformation, liquidity, and risk diversification because they are based on personal relationship and reciprocity and deal in socially, culturally, economically or geographically limited sectors.

2.7 Origin of MFIs in Kenya

Most of the MFIs in Kenya started as NGO's or informal groups but have matured over time to greater levels that they pose a greater source of competition to the formal banking sub-sector. MFIs in Kenya fall under semi-formal financial institutions since they have been subjected to

minimal regulations but have in themselves embraced most of the formal banking practices in terms of lending and savings taking. In deed, MFIs are said to fall under the Banking Act but there are several clauses, which have been found difficult to enforce on them. These include the capital adequacy, lending practices, liquidity, and ownership among others. Consequently, there has been need for formal legislation tailored to the sub-sector(Daily Nation 30th May 2009). A Micro Finance Act has been enacted and is expected to open more opportunities for MFIs by formalizing their operations hence deepening their competitiveness against the existing formal financial institutions under the Regulation of Central Bank of Kenya. The lack of accommodative legislation for the sub-sector has been seen as a stumbling block to the nurturing of MFIs in Kenya. In Kenya, there is an Association of Micro Finance Institutions, which was registered in March 1999.

The potential of using institutional credit and other financial services for poverty alleviation in Kenya is quite significant. About 60% of the population is poor and mostly out of the scope of modern banking services. According to the national baseline survey of 1999/2000 there are close to 1.3 million Micro and Small Enterprises (MSEs) employing nearly 2.3 million people or 29% of the country's total employment and contributing 18% of overall GDP and 25% of non-agricultural GDP. Despite this important contribution only 10.4% of the MSE sector receives credit and other financial services as the formal banking sector in Kenya has over the years regarded the informal sector as risky and not commercially viable.

2.8 Theoretical Review

Remarkably, international accounting rules have little to say about MFIs even though they are financial institutions, which have traditionally been highly-regulated. Greuning *et al.* (1998) reviewed MFI regulatory issues and found that rules range from *ad hoc* to full intervention. They recommended a tiered approach to external regulation that takes into account the different categories and types of MFIs.

Since MFIs have a two-fold nature – social and financial (Gutiérrez-Nieto *et al.*, 2007) – they are particularly interesting to analyze under legitimacy theory. Donors are concerned with impact, so

for an MFI to appear legitimate, it must disclose information on social issues. Likewise, since some investors and regulators are concerned with sustainability, it must also disclose financial information.

Reid (1993) recognizes that the macro-economic environment in which the MFI is active is an important determinant for MFI-performance in addition to institution-specific characteristics. However, the link between the performance of MFIs and the development of the formal financial sector remains unexplored. The market-failure solution theory of microfinance, which suggests that MFIs serve a different purpose than commercial banks, is commonly accepted, but has not yet been confirmed by empirical proof.

Arun (2005) claimed that in many countries MFIs are not usually covered by financial regulation legislation and thus are restricted to attracting deposits from the public. He underlined the importance of an appropriate regulatory framework to support the sustainable delivery of diversified microfinance services. Abbey (2008) argued for constructive regulation instead of restrictive regulation. The former would legitimize the role of MFIs and assure their accountability to the general public, while the mechanical application of formal regulations risks stifling innovation. He identified several best practices in microfinance that would be prohibited by traditional banking rules: outdoor banking, uncollateralized loans and interest rates in excess of market rates.

According to the quantity theory of money, changes in the supply of money lead to changes in nominal GDP and the price level. Money supply refers to the quantity of money available and it depends on the monetary policy that is being followed. The money supply is basically determined by Central Bank's policy; nevertheless it is affected by the behaviour of households that hold money and financial institutions in which money is held. Mamatzakis and Remoundos (2003) used the supply of money as a measure of market size and found that it significantly influences profitability.

2.9 Empirical Review

Existing literature suggests that the environment in which financial institutions, like any other firms, operate influences them. Therefore, the financial market structure, the economic condition of the country, the legal and political environment all may influence the performance of MFIs (Mcdonald J, 1999). GDPGR is expected to have an effect on numerous factors related to the supply and demand for loans and deposits which in turn have an effect on the profitability of MFIs. A positive relation is expected between the performance of the financial institutions and these variables (Staikouras C. and Wood G., 2003).

Another important macroeconomic condition, which may affect both the costs and revenues of MFIs, is the inflation. As Staikouras and Wood (2003) point out that inflation may have direct effects like rise in the price of labor and indirect effects like changes in interest rates and asset prices on the profitability of MFIs. According to Perry (1992), the effect of inflation on MFIs performance depends on whether the inflation is anticipated or unanticipated. In the former case (anticipated inflation) the interest rates are adjusted accordingly resulting in revenues, which increase faster than costs, with a positive impact on profitability. In the later case (unanticipated inflation) the MFIs may be slow in adjusting their interest rates, which results in a faster increase of MFIs costs than revenues that consequently have a negative impact on profitability.

Demirguc-Kunt and Huizinga (1999), examined how the performance of the financial institutions is related to the relative development of the industry and the stock market using the ratios total assets of the deposit money divided by the GDP (ASSGDP) and stock market capitalization divided by total assets of deposit money (MACPASS) as well as industry concentration. Total assets of the deposit money divided by the GDP reflects the overall level of development of the financial sector and measures the importance of MFIs financing in the economy. Demirguc-Kunt and Huizinga, (1999), found that financial institutions in countries with a more competitive financial sector, where financial institutions' assets constitute a larger portion of the GDP, have smaller margins and are less profitable. Market capitalization divided by total assets of deposit money reflects the complementarity or substitutability between financial institutions and stock market financing.

2.10 Profitability of MFIs

In a stable political environment and an enabling macro economy, microfinance institutions are important in providing savings, credit, funds transfer and other financial intermediation facilities to low-income households, micro-enterprises and marginal small-scale enterprises. Effective, long-term provision of these facilities occurs through microfinance institutions that adhere to the key principles of microfinance endorsed by the Consultative Group to Assist the Poorest (CGAP). The following factors influence the profitability of MFIs (Bashir, 2000).

2.11 Determinants of Profitability

2.11.1 Capital Size

Microfinance institution's capital can be seen in two ways. Narrowly, it can be seen as the amount contributed by the owners of the institution (paid-up share capital) that gives them the right to enjoy all the future earnings of the MFI. More comprehensively, it can be seen as the amount of owners' funds available to support the institution's business (Athanasoglou *et al.*, 2005). The later definition includes reserves, and is also termed total shareholders' funds (Anyanwaokoro, 1996). No matter the definition adopted, a MFI's capital is widely used to analyze the status of its financial strength (Bobáková, 2003).

Positive correlation between returns and capital has been demonstrated by Furlong and Keeley (1989), Keeley and Furlong (1990), Berger (1994), Berger (1995), Naceur (2003) and Kwan and Eisenbeis (2005). Investigating the determinants of Tunisian banks' performances during the period 1980-1995, Naceur and Goaied (2001) indicated that the best performing banks are those who have struggled to improve labour and capital productivity and those who have been able to reinforce their equity. Bourke (1989) and Naceur (2003) agree that well-capitalized banks face lower need to external funding and lower bankruptcy and funding costs; and this advantage translates into better profitability. Therefore, researchers widely posit that the more capital a financial institution has, the more resistant it will be to failure (Uche, 1998: 30).

2.11.2 Size of Deposit Liabilities

Empirical evidence from Naceur and Goaied (2001) indicate that the best performing financial institutions are those who have maintained a high level of deposit accounts relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the institution in different profitable ways such as investments and lending activities. In turn, this should increase the MFI's returns on assets *ceteris paribus* (Allen and Rai, 1996 and Holden and El-Bannany, 2006).

2.11.3 Size and Composition of Credit Portfolio

The profit function of a financial institution includes the size and composition of its credit portfolio (Bashir, 2000 and Fries *et al*., 2002). Ordinarily, loans generate revenue through interest and increase profits (Rhoades and Rutz, 1982); hence, a large credit portfolio ought to imply improved profitability. However, since substandard credits are a source of heavy financial losses and have actually been held responsible for numerous institution failures (Olajide, 2006), it follows that a large credit portfolio could also result in reduced bank profitability if it mainly comprises substandard credits. Therefore, it is right to conclude that the size of a MFI's credit portfolio affects its profitability either positively or negatively, depending on its composition of substandard credits.

2.11.4 Interest Rate Policy

A bank's interest rate policy can be seen from two perspectives: the bank's policy regarding the interests it pays on deposits received by it and the bank's policy regarding the interests it receives on credits given by it. The interest paid by a bank on its deposit liabilities is a cost source and tends to contract the bank's income *ceteris paribus*. This is why Fries *et al*. (2002) argue that the profit function of a bank includes the interest it pays on deposits. On the other hand, the interest received by a bank on credits given by it is a revenue source and tends to expand the bank's income *ceteris paribus*. Hence, Bobáková (2003) argues that the profitability of a financial

institution is influenced by its interest rate policy. This policy can be adjusted to enhance profitability. Here the decisive factor is the ability to set such an interest rate for asset deals that meets costs of funds, operating costs, as well as the required rate of profitability.

2.11.5 Labour Productivity

Empirical evidence from Athanasoglou *et al.* (2005) shows that labour productivity growth has a positive and significant effect on financial institution profitability. This suggests that higher labour productivity growth generates income that is partly channeled to profits. Finacial institutions target high levels of labour productivity growth through various strategies that include keeping the labor force steady, ensuring higher quality of newly hired labor, reducing the total number of employees, and increasing overall output via increased investment in fixed assets which incorporate new technology.

2.11.6 State of Information Technology (IT)

IT systems have important contributions to the managerial control of MFIs as well as the efficiency of customer services. Porter and Millar (1985) argue that investing in IT plays an important role in lowering the total costs of a firm (giving a cost advantage) and differentiates its products (giving a competitive advantage), which should be reflected in increased net profit. Using evidence from accounting data, Holden and El-Bannany (2006) empirically investigated whether investment in IT systems affected financial institutions profitability in the UK during the period 1976 – 1996. Their results revealed that investment in IT systems (proxied by number of automated teller machines) had a positive impact on bank profitability. Similarly, several other researchers (Abdullah, 1985, Katagiri, 1989, Shawkey, 1995 and Gupta, 1998) have posited that the deployment of ATMs by MFIs results in greater turnover in services without needing to recruit more staff and open more branches, thereby reducing transaction costs and eventually improving profitability.

The use of the Internet to effect banking transactions has also helped to reduce transaction costs and enhance profitability. Daniel and Storey (1997) refer to the results of a survey in which

the unit transaction cost for a non-cash payment is £1.08 for a branch, 54p for a telephone bank, 26p for a PC bank and just 13p for an internet bank.

2.11.7 Risk Level

Koehn and Santomero (1980) and Athanasoglou *et al.* (2005) suggest that financial institutions risk taking has perverse effects on profits and safety. Bobáková (2003) asserts that the profitability of a financial institution depends on its ability to foresee, avoid and monitor risks, possibly to cover losses brought about by risks arisen. Hence, in making decisions on the allocation of resources to asset deals, a MFI must take into account the level of risk to the assets.

2.11.8 Management Quality

The management of the financial institution itself is also a prerequisite for achieving profitability and stability. There is evidence that superior management raise profits and market shares (Berger, 1995 and Athanasoglou *et al*., 2005). On the other hand, Montinola and Moreno (2001) argue that where management quality is low and managerial monitoring is imperfect, some workers will not exert full effort, thereby "free riding" on good workers. Observing that a poor worker next to him is shirking, a good worker may reduce his own effort; so over time average effort falls to that of the poorest worker. From time to time, good workers may be hired, but their effort will eventually drop down to the preexisting level. At other times, workers who are lazier than existing employees may be hired, dragging down the performance of current workers. Since only hiring that causes workers to shirk more have an impact, the equilibrium is for efficiency to fall over time and the profitability of the firm is adversely affected.

In the same vein, where management quality is low and the board of directors does not provide honest and effective leadership, being often more concerned with securing credit facilities for themselves, prudent lending practices cannot be followed. This has the net effect of increasing the ratio of substandard credits in the bank's credit portfolio and decreasing the bank's profitability (Mamman and Oluyemi, 1994). But Gambs (1977) argues that extremely bad management may not prove fatal to an institution unless adverse economic conditions

take a toll on the institution and lead to unexpected capital outflows or loan losses.

2.11.9 Institution's Size

If the relative size of a firm expands, its market power and profits increases. This is the Market-Power (MP) hypothesis. The hypothesis is also referred to as the Structure-Conduct-Performance (SCP) hypothesis (Athanasoglou *et al*., 2005). It has been argued that the effect of a growing size on financial institutions profitability is significantly positive to a large extent (Smirlock, 1985). Kwan and Eisenbeis (2005) suggest that the difference in profitability among large and small financial institutions is due to production technologies and outputs, which vary across them. The relative efficiency hypothesis (Clarke *et al*., 1984) presupposes that larger institutions (where size is measured by assets) are more efficient than smaller ones, and are more profitable as a result of this superior efficiency.

The preceding arguments on the effect of size on financial institutions profitability overlap with the idea that large ones can benefit from economies of scale (Baumol, 1959). However, some researchers suggest that little cost saving can be achieved by increasing the size of a financial firm (Berger *et al.*, 1987). They suggest that eventually very large institutions could face scale inefficiencies, perhaps due to bureaucratic reasons (Athanasoglou *et al.*, 2005).

2.11.10 Institution's Age

Newly established MFIs are not particularly profitable (if at all profitable) in their first years of operation, as they place greater emphasis on increasing their market share, rather than on improving profitability (Athanasoglou *et al.*, 2005).

2.11.11 Restructuring

Claessens *et al*. (1997) explain that enterprise restructuring involves depoliticizing management by giving managers more autonomy, adopting new accounting standards and practices, shedding labor and concentrating on activities in which   the enterprise has a competitive advantage. The

better corporate governance that can result leads to higher market value and profitability.

2.11.12 Ownership of the Institution

In the literature, ownership is widely reported to be a determinant of financial institution profitability. Several studies (Bashir, 2000, Berger *et al*., 2000, Clarke *et al*., 2000 and Naceur, 2003) have concluded that foreign owned banks are more profitable than their domestic counterparts in developing countries and less profitable than domestic banks in industrial countries, perhaps due to benefits derived from tax breaks and other preferential treatments. Privately owned banks have also been assessed to be more profitable than their state owned (public) counterparts (La Porta *et al*., 2002, Barth *et al.*, 2004, Micco *et al.*, 2004 and Sapienza, 2004). Specifically, Micco *et al.* (2004) and Athanasoglou *et al.* (2005) posit that public banks' low profitability is due to the fact that, rather than maximizing profits, they respond to a social mandate.

2.11.13 Ownership Concentration

Using data for all the more than 700 Czech firms that were consistently listed on the Prague Stock Exchange over the period 1992-95, empirical evidence from Claessens *et al.* (1997: 2) identifies strong positive relationships between ownership concentration (top five investors' shares as a percentage of total shares outstanding) and firm management / profitability / market value. They explain that concentrated ownership gives the owners better incentives to monitor firms and make necessary changes in management. By contrast, in firms with diffuse ownership, no single owner has an incentive to "mind the store," so management is not disciplined for bad performance or rewarded for good performance". Mitton (2002) also shows that firms with concentrated ownership showed better stock market performance during the Asian economic crisis.

2.11.14 Control – Ownership Disparity

Joh (2003) has identified control-ownership disparity as a determinant of firm profitability. In a firm with a high control-ownership disparity, a controlling shareholder exercises control but owns only a small fraction of the firm's cash flow. La Porta *et al.* (2002b) find that these firms are widespread around the world. Joh argues that, during economic crisis, firms having high control-ownership disparity show low performance mainly because these firms' controlling shareholders have an incentive to expropriate resources since the private benefits exceed costs. Jensen and Meckling (1976) and Shleifer and Vishny (1997) also argue that the tendency to expropriate resources increases as the control-ownership disparity increases, i.e. as the controlling shareholder owns less, and is even more likely when their position is secure. However, Morck *et al.* (1988) posit that such effects do not have a monotonic relationship.

2.11.15 Structural Affiliation

A firm's structural affiliation could have positive or negative effects on its profitability. On the positive side, Leff (1978), Hubbard and Palia (1999) and Khanna and Palepu (2000) are of the view that firms affiliated with business groups have advantages over independent firms through intragroup trading and internal capital markets, especially in less developed economies. Also, through diversification, business groups can reduce risk and uncertainty in firm operations. Furthermore, a business group can exploit its large size to borrow money at a lower cost (Joh, 2003). But, on the negative side, Lamont (1997) and Scharfstein and Stein (2000) argue that multi-divisional firms sometimes overinvest capital in weak divisions and underinvest it in stronger ones; and this adversely affects the profitability of the entire business group. Firms associated with business groups can also suffer greatly, as their controlling shareholders have the tools to divert firm resources through the transfer of assets from one subsidiary to another. Controlling shareholders of firm groups can move away resources for their private benefits by means such as self-dealing, as well as divert resources from one subsidiary in which they own less to firms in which they own more. The end result is inefficient investments and reduced profitability of the entire business group.

2.12 Conclusion

From the literature, it can be concluded that the key objective of the MFIs is to provide micro credit and other financial services like savings to the otherwise excluded poor people and help alleviate their poverty. Micro finance has been recognized as one of the most important tools for poverty alleviation. Micro finance institutions have been rightly referred to as "back to the basics of banking" and have evolved over many years worldwide.

Informal financial institutions identified in the literature include, lending among relatives, neighbors and friends, the rotating credit and saving associations (ROSCAs) , informal money lenders and pawn brokers and tied credit. Most of the MFIs in Kenya started as NGO's or informal groups but have matured over time to greater levels that they pose a greater source of competition to the formal banking sub-sector.

The determinants of profitability found in the literature include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labour productivity, state of information technology (IT), risk level, management quality, institution's size, institution's age, restructuring, ownership of the institution, ownership concentration, control – ownership disparity and structural affiliation.

Most of the literature above is from other countries whose economic situation is different from that of Kenya. The purpose of this study is to provide new evidence on the determinants of the profitability of Kenyan Microfinance Institutions by analyzing a unique firm-level data set of firm performance which is quite different from the previous studies that dwelt on external factors that the firms do not have much control over. The study thus looks at the profits of MFI, capital size, size of deposit liabilities, size of credit portfolio, composition of credit portfolio, labour productivity, state of IT, risk level, size of MFI, ownership of MFI, ownership concentration of MFI, control-ownership disparity and structural affiliation of MFI.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The chapter looks at the methods that will be used to attain at the objective of the study. This chapter is structured into research design, population of study, data collection and data analysis.

3.2 Research Design

This study was a descriptive survey. Descriptive survey was preferred for it is used to obtain information concerning the current status of a phenomena and purposes of these methods is to describe "what exists" at present with respect to situational variables i.e. it looks at relationship between and among variables (Mugenda and Mugenda 2003).This research design is appropriate to this study because the study seeks to describe the factors that determine the profitability of MFIs in Kenya. This method was successfully used by Wanjiru, (2000), in a study of factors that influence productivity of credit officers in microfinance institutions.

3.3 Population of Study

Target population is the specific population about which information is desired. According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. The population is an entire group of objects having a common observable characteristic or the aggregate of all that conforms to a given specification. This definition ensures that population of interest is homogeneous. And by population the researcher means complete census of the sampling frames. Population studies also called census are more representative because everyone has equal chance to be included in the final sample that is drawn according to Mugenda and Mugenda (1999).

The population of interest in this study consisted of all the Microfinance Institutions (MFIs) that operate in Kenya. The Association of Micro Finance Institutions (AMFI) has a membership of 24 institutions comprising of NGOs, companies, trusts, societies and commercial banks. Eighteen of these micro finance institutions operate in Nairobi with approximately 750 outlets. The researcher targeted the 18 MFIs operating in Nairobi for the research and this formed the sample for purposes of the research. This is because the 18 MFIs operating in Nairobi form an accessible population and with over 700 outlets in the country they form a sample that is comparable to the target population in the characteristics that appear most relevant. The selected sample was therefore deemed to be a representative of the target population, and the researcher can therefore generalize the results of the study (Mugenda and Mugenda, 1999).

3.4 Data Collection

This study was facilitated by the use of both primary and secondary data. The primary data was collected through researcher administered questionnaires to the respondents who were senior managers in the selected MFIs. Closed ended questions were used to get information on some variables using a rating scale so as to allow for quantitative analysis. The secondary data was collected from published accounts in the MFIs reports and also from their websites. The information consisted of items targeted for the study as data on profits of MFI, capital size, size of deposit liabilities, size of credit portfolio, composition of credit portfolio, labour productivity, state of IT, risk level, size of MFI, ownership of MFI, ownership concentration of MFI, control-ownership disparity and structural affiliation of MFI. Secondary data was also be collected from the financial statements of the MFIs sampled for the study, journals, reports, newspapers and magazines.

3.5 Data Analysis

Data collected was purely quantitative and it was analyzed by descriptive analysis. The descriptive analysis of the data involved multiple correlation and regression and this showed direction and magnitude of the relationship between the variables. Descriptive statistical tools

helped the researcher to describe the data and determine the extent to be used. Data analysis used SPSS 17.0 and Microsoft excel, percentages and tabulations. To empirically ascertain the factors determining MFIs profitability in Kenya, a linear regression model was predicted. While no specification test was used to support using the linear function, it is evident that the linear functional form is widely used in the literature and produces good results (Bourke, 1989). The majority of studies on profitability, such as Short (1979) and Bourke (1989), used linear regression models to estimate the impact of various factors that may be important in explaining what determines profits in firms.

In order to eliminate the possibility of obtaining spurious correlations, the study ensured that all the variables incorporated into the predicted model were clearly established, in the literature. Since regression analysis is basically a forecasting technique (Gitman, 2007), to empirically ascertain the significance of the factors determining MFIs' profitability in Kenya a simple Ordinary Least Squares (OLS) method was identified as was used by Greene, (2004). Ordinary least squares (OLS) computational methods are commonly used to test hypotheses of differences among factor-level means in repeated measures of data, that is, systems of equations in which there are more equations than unknowns This is because, statistically, least squares estimates are the most reliable regression estimates because of their general quality of minimized bias and variance. In testing for significance of the regressors a significance limit at 5 per cent was used.

3.5.1 Model

$$P_{it} = \alpha_o + \delta CAP_{i,t-1} + \delta DL_{it} + \delta CP_{it} + \delta CCP_{it} + \delta LP_{it} + \delta IT_{it} + \delta R_{it} + \delta S_{it} + \delta O_{it} + \delta OC_{it} + \delta COD_{it} + \delta SA_{it} + \varepsilon_{it} \tag{1}$$

where P_{it} is profits of MFI i at time t; $CAP_{i,t-1}$ is capital size of MFI i at time t-1; DL_{it} is size of deposit liabilities of MFI i at time t; CP_{it} is size of credit portfolio of MFI i at time t; CCP_{it} is composition of credit portfolio of MFI i at time t; LP_{it} is labour productivity of MFI i at time t; IT_{it} is state of IT of MFI i at time t; R_{it} is risk level of MFI i at time t; S_{it} is size of MFI i at time t; O_{it} is ownership of MFI i at time t; OC_{it} is the Ownership Concentration of MFI i at time t , COD_{it} is the Control Ownership Disparity of MFI I at time t; SA_{it} the Structural Affiliation of

MFI at i time t :α_o is a constant; δ is variable coefficient; while ε_{it} is an error term.

The model above was successfully used by Koutsoyiannis, (2003) and Greene, (2004). Koutsoyiannis (2003) statistically stated that least squares estimates are the most reliable regression estimates because of their general quality of minimized bias and variance.

While no specification test is used to support using the linear function above, it is evident that the linear functional form is widely used in the literature and produces good results (Bourke, 1989 and Bashir, 2000). The majority of studies on determinants of profitability, such as Short (1979), Bourke (1989), Molyneux and Thornton (1992), Demirguc-Kunt and Huizinga (2001), Goddard et al. (2004) and Athanasoglou et al. (2005) used linear regression models to estimate the impact of various factors that may be important in explaining organizations profits.

In order to control for multicollinearity and autocorrelation, enough care was taken in selecting and defining the independent variables to estimate the dependent variable so as to ensure that multicollinearity was reduced to a minimum(C.R.Kothari,2009)

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data findings and analysis thereto on the study to investigate factors that determine the profitability of MFIs in Kenya. The study had targeted 18 respondents out of which all the 18 respondents filled and returned their questionnaires constituting 100% response rate. Data analysis was done through Statistical Package for Social Statistics (SPSS 17.0). Frequencies and percentages were used to display the results which were presented in tables, charts and graphs.

4.2 Data Analysis and Interpretation

The data was collected from MFIs that have their Head Offices in Nairobi and the following institutions participated in the study; Equity Bank, K-Rep Bank, Faulu Kenya, Small and Medium Enterprise Program (SMEP), Kenya Women Finance Trust (KWFT), BIMAS, Micro Kenya, Micro Enterprise Support Trust, Kenya Ecumenical Church Loan Fund (ECLO), Pride Kenya, Women Economic Empowerment Consortium (WEEC), KPOSB, Jamii Bora, Elite Microfinance, Sunlink, Jitengemee Trust, KADET and Family Bank.

The respondents held various senior management positions in their respective institutions which included Public relations managers, credit managers, Operations managers, sales and marketing managers and Customer care officers.

Figure 1: Number of years the respondent has served in the institution
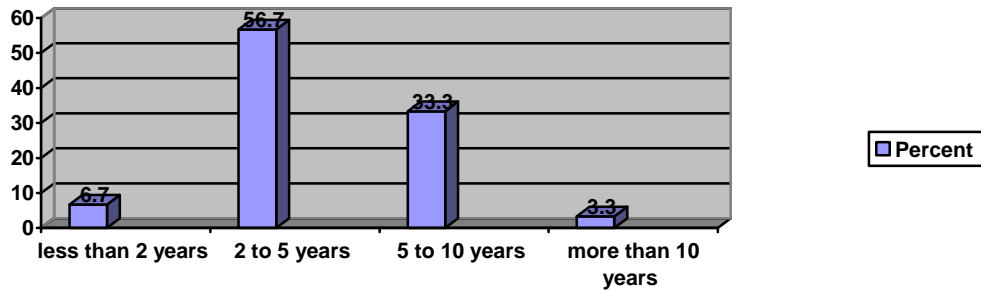
The study sought to know the number of years the respondents had served their respective organizations. From the findings of the study, 56.7% of the respondents had served their organization for 2 to 5 years, 33% had served their organization for 5 to 10 years, 6% had served their organization for less than 2 years and 3.3% had served their organization for more than 10 years. This was an indication that majority of the respondents had served their organizations for less than 5 years

Figure 2: Number of years the MFI has been in operation
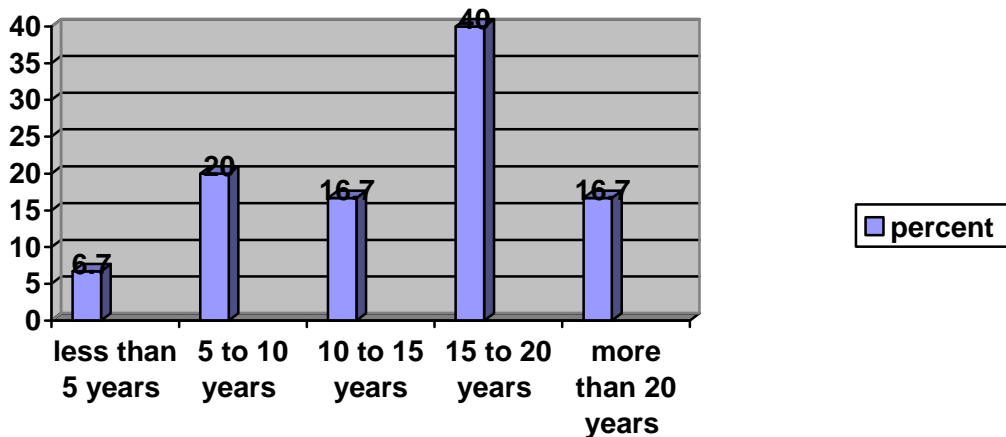
The study sought information on the number of years the respective MFIs had been in operation. It was found that 40% of the MFIs had been operation for 15 to 20 years, 20% of the MFIs had

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been in operation for 5 to 10 years, 16.7% of the MFIs had been in operation for 10 to 15 years, 6.7% for less than 5 years and 16.7% of them had been in operation for more than 20 years. This information indicates that more than 93% of MFIs in Kenya have been in operation for more than 5 years and only 16.7% have been in operation for more than 20 years.

Table 1: Number of employees in the firm

	Frequency	Percentage
1-250	11	63.3
251-500	4	23.3
501-750	2	10.0
751-1000	1	3.3
Total	18	100.0

The study also sought information on the number of employees in the institutions. From the findings in the above table 1 the study found that 63.3% of the MFIs had less than 250 employees in their firm, 23.3% had between 251 to 500 employees in their firm, 10% had between 501 to 750 employees in their firm and 3.3% of the MFIs had more than 750 employees. This information shows that most MFIs have low numbers of employees which could be attributed to their age and size in this country. Closely associated with the number of employees in the MFIs was the branch network. The study found that the branch network of the MFIs ranged between 2 and 27 branches with most of the MFIs having less than 10 branches.

Figure 3: The ownership of the MFI.
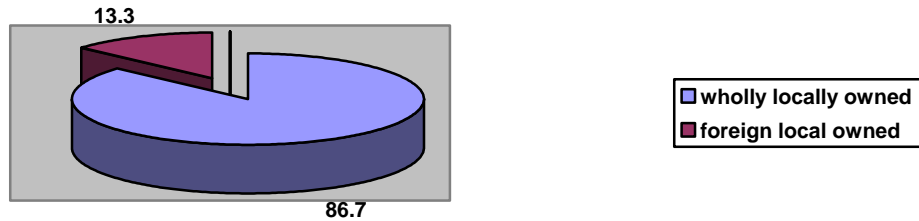
The study also sought information on the ownership of the MFIs. It was found that 86.7% of the MFIs in the country were wholly locally owned whereas 13.3% of the MFIs had foreign local ownership. No MFI was found to be wholly foreign owned. This information shows that most of the MFIs in the country were wholly locally owned and that all of them had some degree of local ownership.

Table 2: Whether the organization lends to its directors and other employees

	Frequency	Percentage
Yes	14	80.0
No	4	20.0
Total	18	100.0

The study also sought information on the lending characteristics of the MFIs in respect to lending to directors and other employees.

It was found that 80% of the MFIs were lending to their directors and other employees whereas 20% of the MFIs weren't lending to their directors and other employees. This information shows that most of the MFIs were lending to their directors and other senior employees. This information gives the level of insider lending in the MFIs and has a bearing on the financial risk of the institutions.

Table 3: Respondent rating of the performance of the board of directors

	Frequency	Percentage
Poor	2	13.3
Fair	7	40.0
Good	7	36.7
Very good	1	6.7
Excellent	1	3.3
Total	18	100.0

The study sought opinion of the respondents on the performance of the board of directors and it was found that 40% of the respondents rated the performance of their directors as fair, 36.7% as good, 13.3% rated the performance of the directors as poor, 6.7% of the respondents rated their directors performance as very good and 3.3% rated the performance of the directors as excellent. This is an indication that most of the respondents were satisfied with the performance of their Board of Directors.

Figure 4: Whether the organization employs ATM services
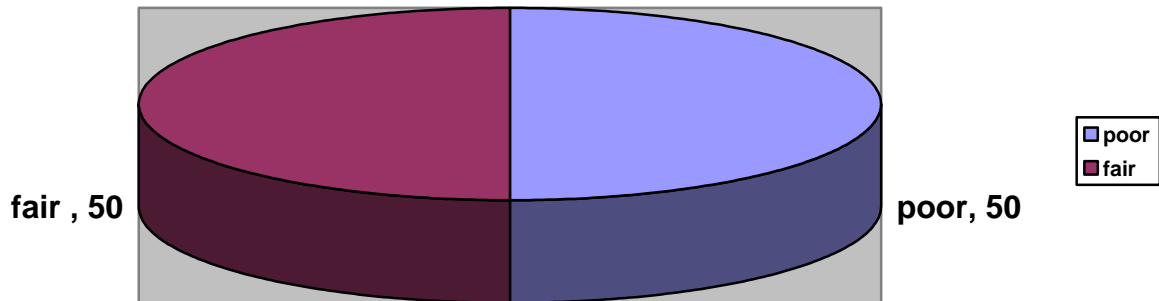
The researcher sought to know whether the respondent organizations were employing the use of ATM services. The study found that 50% of the MFIs were employing the use of ATM services and the other 50% were not. This is an indication of the low use of Information Technology in MFIs.

Table 4: How often the organization undertakes reconstruction/ re organization in order to improve its competitive advantage

	Frequency	Percentage
Not often	6	33.3
Often	8	43.3
Very often	4	23.3
Total	18	100.0

The study sought information on the level of reorganization and reconstruction undertaken by the MFIs for strategic purposes and competitive advantage and it was found that 66.6% of the MFIs undertook reconstruction/ re organization in order to improve their competitive advantage while 33.3% of the MFIs did not. Of the MFIs that undertook reconstruction, 23.3% did it frequently with the changes in external environment.

Table 5: Whether the management of the organization possesses any shares in the firm

	Frequency	Percentage
Yes	11	60.0
No	7	40.0
Total	18	100.0

The study sought information on the degree of ownership the management had in the MFIs and it was found that 60% of the MFIs had their management owning shares in them whereas 40% of the MFIs did not have the management owning shares in them. The number of shares possessed by the management ranged between 10% and 20% of the MFIs total ownership.

The study also found out that between 15% to 45% of the total shareholding in all the MFIs were held by the top five investors which indicates a high ownership concentration within MFIs in Kenya.

Table 6: Whether the organization is an affiliate to any group of companies

	Frequency	Percentage
Yes	6	33.3
No	12	66.7
Total	18	100.0

The study also sought information on the structural affiliation of the MFIs in Kenya and it was found that 66.7% of the MFIs were not an affiliate to any group of companies whereas 33.3% of the MFIs were an affiliate to a group of companies and the number of firms in the business group ranged between 3 to 15 companies. This shows that more than 66% of MFIs in Kenya are not an affiliate to any group of companies.

Table 7: The respondents rating on labour force productivity

	Frequency	Percentage
Low	1	6.7
High	13	70.0
Very high	4	23.3
Total	18	100.0

The study sought the opinion of the respondents on the productivity of the MFI labour force and it was found that 70% of the respondents rated their labour force Productivity as high, 23.3% rated the productivity of their labour force as very high and 6.7% rated the productivity of their labour forces as low.

4.3 Model Analysis

Table 8: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.986(a)	.972	.943	808.61485

From the above table the Adjusted R^2 is called the coefficient of determination and tells us how the profits of MFIs varied with the independent variables. From Table above, the value of adjusted R^2 is 0. 972, which implies that, there was a variation of 97.2% on profits of MFIs with the independent variables at a confidence level of 95%.

Table 9: Model results and model coefficients

	Un standardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	1.2059	1.0114	1.097	.323
Capital size of MFI	1.4511	1.8224	0.868	.425
Size of deposit liabilities of MFI	1.0492	0.9396	1.117	.315
Size of credit portfolio of MFI	1.6970	2.5110	0.676	.529
Composition of credit portfolio of MFI	1.7940	2.3931	0.750	.487
Labour productivity of MFI	0.3420	0.0540	0.351	.001
IT of MFI	0.8331	0.1561	0.839	.317

Risk level of MFI	0.7712	0.0612	0.097	.938
Size of MFI	0.2164	0.0188	0.094	.923
Ownership of MFI	0.3584	0.3111	0.090	.978
Ownership Concentration	0.5741	0.4181	0.097	.967
Control Ownership Disparity	0.2000	0.0631	0.094	.935
Structural Affiliation of MFI	0.9554	0.6134	0.092	.918

From the above table data, the established regression equation from the model was

$$\text{Pit} = 1.2059 + 1.4511\text{CAP}_{i,t-1} + 1.0492\text{DL}_{it} + 1.6970\text{CP}_{it} + 1.7940\text{CCP}_{it} + 0.3420\text{LP}_{it} + 0.8331\text{IT}_{it} + 0.7712\text{R}_{it} + 0.2164\text{S}_{it} + 0.3584\text{O}_{it} + 0.5741\text{OC}_{it} + 0.2000\text{COD}_{it} + 0.9554\text{SA}_{it} + \varepsilon_{it}$$

From the above regression equation based on the model it is established that profits of an MFI will be 1.2059 holding the independent variables to a constant zero. A unit increase in capital size of an MFI will cause an increase in profits of the MFI by a factor of 1.4511, a unit increase in size of deposit liabilities of an MFI will cause an increase in profits by a factor of 1.0492, a unit increase in size of credit portfolio of an MFI will cause an increase in profits of the MFI by a factor of 1.697, a unit increase in composition of credit portfolio of an MFI will cause an increase in profits of the MFI by a factor of 1.7940, a unit increase in labour productivity of an MFI will cause an increase in profits of the MFI by a factor of 0.342, a unit increase in employment of IT by an MFI will cause an increase in profits of the MFI by a factor of 0.8331, a

unit increase in risk level of an MFI will cause an increase in profits of the MFI by a factor of 0.7712, a unit increase in size of an MFI will cause an increase in profits of the MFI by a factor of 0.2164 ,an unit increase in local ownership of an MFI will cause an increase in profits of the MFI by a factor of 0.3584, a unit increase in Ownership Concentration of an MFI will cause an increase in profits of the MFI by a factor of 0.5741, a unit increase in Control Ownership Disparity of an MFI will cause an increase in profits of the MFI by a factor of 0.2000 and a unit increase in Structural Affiliation of an MFI will cause an increase in profits of the MFIs by a factor of 0.9554. This infers that there is positive relationship between profits of MFIs and the independent variables but the degree of the relationship varies for the different variables depending on the strength of the relationship.

CHAPTER FIVE

5.0 SUMMARY OF DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The recommendations were based on the objectives of the study as to investigate the factors that determine the profitability of MFIs in Kenya and determine to what extend the identified factors explain the profitability of MFIs in Kenya.

5.2 Summary of Findings

From the findings of the study, 40% of the MFIs had been operation for 15 to 20 years, 20% had been in operation for 5 to 10 years. Those MFIs that had been in operation for more than 20 years and 10 to 15 years were represented by an equal percentage of 16.7% in each case and 6.7% of the MFIs had been in operation for less than 5 years. This information indicates that most of the MFIs in Kenya had been in operation for 5 to 20 years.

The number of employees in the respondent MFIs was found to be between 1 and 250 for 63.3% of the MFIs, between 250 and 500 employees for 23.3% of the MFIs, between 500 and 750 employees for 10% of the MFIs, and only 3.3% of the MFIs were found to have more than 750 employees. This information shows that MFIs in Kenya have low numbers of employees which is attributable to their age and size in the country.

The ownership of the MFIs was found to be 86.7% for those wholly locally owned in the country whereas 13.3% of the MFIs had foreign local ownership. No MFI was found to be wholly foreign owned which shows that all the MFIs in Kenya have some degree of local ownership.

The number of branches per MFI range between 2 to 27 branches and 80% of the MFIs were lending to directors and other employees whereas 20% of them weren't lending to their

directors and other employees. This information shows that most of the MFIs were lending to their directors and other employees.

The respondent rating of the performance of the board of directors was found to be fair for 40% of the MFIs, good for 36.7% of the MFIs, poor for 13.3% of the MFIs, very good for 6.7% of the MFIs and excellent for 3.3% of the MFIs. This shows that most of the directors were performing well in their respective organizations.

On the employment of the use of ATM services, the study found that 50% of the MFIs were employing the use of ATM services whereas the other 50% of the organizations were not. The study found that 66.6% of the organizations undertook reconstruction/ re organization in order to improve their competitive advantage in response to changes in external environment where as 33.3% of the organizations didn't.

The percentage of shares owned by the top five investors in the MFIs, was found to range between 15% to 45% of total shareholding and 60% of the MFIs had their management owning shares in them with the number of shares possessed by the management ranging between 10% to 20%.

Most of the MFIs did not have any structural affiliation as the study found that 66.7% of the MFIs were not an affiliate to any group of companies whereas 33.3% of them were an affiliate to a group of companies with the number of firms in the business group ranging between 3 and 15 firms.

The productivity of MFIs labour force was found to be high for most of them with 70% of the MFIs rating the productivity of their labour force as high, 23.3% as very high and only 6.7% rating the productivity of their labour force as low.

The Adjusted R^2 is called the coefficient of determination which refers to the amount of variation on the dependent variable explained by the independent variables. The multiple regression model is adopted because the study has one dependent variable (Profit) which is presumed to be a function of various independent variables which together predict the dependent variable.

The value of adjusted R^2 is 0. 972, which implies that, 97.2% of the variation in profits of MFIs is explained or predicted by the independent variables (capital size, size of deposit liabilities, size of credit portfolio, composition of credit portfolio, labour productivity, state of IT, risk level, size of MFI, ownership of MFI, ownership concentration of MFI, control-ownership disparity and structural affiliation of MFI) at a confidence level of 95%. The established regression equation from the model was

$Pit = 1.2059 + 1.4511CAP_{i,t-1} + 1.0492DL_{it} + 1.6970CP_{it} + 1.7940CCP_{it} + 0.3420LP_{it} + 0.8331IT_{it} + 0.7712R_{it} + 0.2164S_{it} + 0.3584O_{it} + 0.5741OC_{it} + 0.2000COD_{it} + 0.9554SA_{it} + 808.61485$

From the above regression equation based on the model, it is established that profits of MFIs will be 1.2059 holding the independent variables to a constant zero. A unit increase in capital size of an MFI will cause an increase in profits of the MFI by a factor of 1.4511, a unit increase in size of deposit liabilities of an MFI will cause an increase in profits by a factor of 1.0492, a unit increase in credit portfolio of MFI will cause an increase in profits of the MFI by a factor of 1.697, a unit increase in composition of credit portfolio of an MFI ,will cause an increase in profits of the MFI by a factor of 1.7940 ,a unit increase in labour productivity of an MFI will cause an increase in profits of the MFI by a factor of 0.342, a unit increase in employment of IT by an MFI will cause an increase in profits of the MFI by a factor of 0.8331, an unit increase in risk level of an MFI will cause an increase in profits of the MFI by a factor of 0.7712, a unit increase in size of an MFI will cause an increase in profits of the MFI by a factor of 0.2164 ,a unit increase in local ownership of an MFI will cause an increase in profits of the MFI by a factor of 0.3584, a unit increase in Ownership Concentration of an MFI will cause an increase in profits of the MFI by a factor of 0.5741, a unit increase in Control Ownership Disparity of an MFI will cause an increase in profits of the MFI by a factor of 0.2000 and a unit increase in Structural Affiliation of an MFI will cause an increase in profits of the MFI by a factor of 0.9554. This infers that there is positive relationship between profits of MFIs and all the independent variables.

5.3 Conclusion

From the above findings, the study concludes that all the independent variables studied i.e.; capital size of MFI ,size of deposit liabilities of MFI, size of credit portfolio of MFI , composition of credit portfolio of MFI , labour productivity of MFI , IT of MFI, risk level of MFI , size of MFI ,ownership of MFI , Ownership Concentration of MFI , Control Ownership Disparity and Structural Affiliation of MFI all affect the profitability of the firm. All the variables were found to have a positive correlation with the profitability of the MFIs.

The degree of relationship between the independent variables and profitability varied among the variables with the size and composition of credit portfolio, capital size and size of deposit liabilities having the strongest positive relationship with profitability. Control ownership disparity and size of an MFI were found to have the weakest positive relationship with profitability of the MFIs.

5.4 Recommendation

From the above findings and conclusion, the study recommends that in order for MFIs to remain profitable, they must maintain at an optimal level the factors which affect their profitability with a strong emphasis on capital size, size of deposit liabilities, size of credit portfolio and the composition of credit portfolio of the MFIs.

5.5 Limitations of the Study.

The findings of this study are subject to some limitations that may provide the initiatives for future research. One of the limitations of the study is the methodology used for measuring some of the variables like labour productivity, IT and Risk Levels of MFIs. Although the questionnaires had been constructed and defined as precisely as possible by drawing the relevant literature, the measurements used may not perfectly represent all the dimensions as the information provided was purely qualitative and was rated to allow for quantitative analysis. Secondly the data collection methodology employed was mainly self administered questionnaires

due to time constrains though interviews could have yielded more reliable and accurate results. Lastly despite limitations of using single-period data, the results of the study provide valuable insights in to the effect of the various factors in the determination of profitability of microfinance institutions in Kenya.

5.6 Suggestions for Further Research.

Much of the previous empirical work on microfinance institutions includes only case studies and small sample reviews of their financial conditions. This study used firm panel cross sectional data from selected microfinance institutions operating in Nairobi and measured variables on a single time period. Future studies could use the same basic regression construction but implement the study in terms of a longitudinal rather than a cross sectional design as it would correct changes in data relative to time element. Studies could also be undertaken using more theoretical models on the development and operations of MFIs especially looking at more disaggregated data to more closely examine the contribution of the factors to the growth and development of the microfinance sector in Kenya.

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Yunus,Muhamed(July 2005)"Grameen Banks struggling(Beggar)Members Programme,Grameen Communications.

APPENDICES

APPENDIX I: INTRODUCTORY LETTER

To Whom It May Concern

RE: PERMISSION TO CARRY OUT A RESEARCH ON THE FACTORS DETERMINING PROFITABILITY OF MICRO FINANCE INSTITUTIONS IN KENYA.

I am a student at the University of Nairobi and in partial fulfillment of a Masters in Business Administration degree I intend to carry out a research on microfinance institutions operating in Nairobi. The topic of the research is 'Factors determining Profitability of Microfinance Institutions in Kenya'.

Your microfinance institution has been chosen for the study. The choice is based on your strategic importance in the achievement of objectives of the study. I kindly request your approval of I the undersigned collecting data in the institution from its financial statements. Any other documentations, reports or journals that you may have that are relevant to this topic of study may be availed to me at your discretion.

The research information will be confidential and will only be used for academic purposes. Thank you in anticipation

Yours Faithfully,

Charles M Mulandi, D61/8240/06

APPENDIX II: QUESTIONNAIRE

Please supply the required data by filling in the blanks where space is provided or by ticking [√] against the most appropriate answer**.**

1.   What is the name of your financial institution?

   …………………………………………………………………………..

2.   What is your designation in the company

   …………………………………………………………………………..

3.   What is the number of years that you have served in the institution?

   Less than 2 years   [ ]

   2 years to 5 years   [ ]

   5 years to 10 years   [ ]

   More than ten years   [ ]

4.   For how long has the MFI been in operation?

   Less than 5 years   [ ]

   5 years – 10 years   [ ]

   10 years – 15 years   [ ]

   15 years – 20 years   [ ]

   More than 20 years   [ ]

5. Number of employees in the firm

    1-250   [   ]

    251-500   [   ]

    501- 750   [   ]

    751-1000   [   ]

    Over 1000   [   ]

6. What is the ownership of the company?

    Wholly locally owned   [   ]

    Foreign owned   [   ]

    Foreign-local owned   [   ]

7. How many branches does your organization have in the country?

    …………………………………………………………………………………..

8. Does your organization lend to its directors and other employees?

                                Yes   [   ]

                                No   [   ]

9.   In your opinion, how can you rate the performance of the board of directors?

Poor   [ ]

Fair   [ ]

Good   [ ]

Very good   [ ]

Excellent   [ ]

10.   Does your organization employ the services of automatic teller machines (ATM)?

Yes   [ ]

No   [ ]

11.   How often does your organization undertake reconstruction / re organization in order to improve its competitive edge?

Not often   [ ]

Often   [ ]

Very often   [ ]

12.   What is the percentage of total shares owned by the top five investors in your organization?

……………………………………………………………………………….

13. Does the management of your organization own any shares in the firm?

Yes   [ ]

No   [ ]

14. If yes, what is the percentage of the total shares owned by the management as a fraction of the total shares outstanding

……………………………………………………………..

15. Is your organization affiliate to any group of companies?

Yes   [ ]

No   [ ]

16. If yes, how many firms are in the business group?

……………………………………………………………..

17. What is the rate of labour turnover in your organization i.e. what is the percentage of the employees who have left the organization in the last one year as a fraction of the total number of the employees?

……………………………………………………………………

18. In your opinion, how can you rate the productivity of your labour force?

Low   [ ]

High   [ ]

Very high   [ ]

Thank you so much for your co-operation.