THE EFFECT OF GOVERNMENT REGULATION ON THE FINANCIAL SUSTAINABILITY OF MICROFINANCE INSTITUTIONS IN KENYA.

BY

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DECLARATION

I declare that this research project is my original Work and has not been presented for an academic award in any University.

Sign…….Date……

Shadrack Mithika M`Mukiri

D63/80593/2012

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

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DEDICATION

I dedicate this project to;

The almighty God for the far he has taken me towards the completion of this work.

My loving wife Rose Mithika for encouraging me during the entire period of this study and supporting me in terms of time and resources towards the achievement of this dream.

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ABSTRACT

In Kenya all Microfinance institutions are required to be regulated through Micro Finance Act 2006 and supervised by the Central bank of Kenya. They can either transform to a Deposit Taking Microfinance or through the Regulations set by the ministry of Finance as conferred by the Microfinance act as credit only Microfinance.

The purpose of this study was to determine the effect of the government regulation on the financial sustainability of Microfinance institutions in Kenya. Using capital adequacy, liquidity and loan provisioning requirements as the independent variables while sustainability as the dependent variable, capital requirement was calculated as ratio of Equity against risk weighted assets as prescribed by the Microfinance act, 2006. Liquidity was calculated as the ratio of current assets over current liabilities, loan provisioning was calculated as the ratio of portfolio in arrears over the outstanding loan portfolio and sustainability was measured by operational self sufficiency calculated as the ratio of operational income over operational costs.

A sample of 30 retail Microfinance institutions was drawn from a target population of 48 retail Microfinance institutions in Kenya using disproportionate stratified random sampling for this study. Secondary data was collected from audited financial statements for each institution for 3 years and analyzed using a multivariate regression model. The study found that capital adequacy and liquidity requirements had a positive effect on the financial sustainability of Microfinance Institutions in Kenya with less than 50% positive correlation on the financial sustainability. It further found that Loan provisioning had a negative effect on the financial sustainability and less than 50% negative correlation on the financial sustainability of MFIs in Kenya.

The study will help Microfinance institutions willing preparing to transform to DTMs to understand that government regulations boost their sustainability as well as help them improve loan quality hence will be encouraged to transform to DTMs.

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LIST OF ABBREVIATIONS

AMFI	-Association of Microfinance Institutions
ASCAS	-Accumulative Savings and Credit Associations
CBK	-Central bank of Kenya
CGAP	-Consultative Group to Assist the Poor
DTM	-Deposit taking Microfinance
FSD	-Financial Sector Deepening
FSS	-Financial self sufficiency
GDP	-Gross Domestic Product
IISD	-International institute for Sustainable Development
MFI	-Microfinance institutions
OSS	-Operational self sufficiency
ROSCAS	-Rotating Savings and Credit Associations

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Regulation is the promulgation, monitoring and enforcement of rules established. The main purpose of financial regulation is to promote effective and efficient resource accumulation and allocation while maintaining soundness and safety of institutions that take deposits from members. International institute of for sustainable developments (IISD) (2012), outlined the prudential regulations of Microfinance as, minimum capital adequacy which represents the lowest amount of currency an investor should contribute to the entity before seeking for license, capital adequacy ratio refers to the minimum amount of capital an MFI should hold to avoid solvency problems, loan provisioning and reporting requirements.

Microfinance is the provision of financial services to low-income individuals and households, as well as micro, small and medium enterprises. The idea of Microfinance started back in 1974 by Professor M.Yunus by lending 27 USD to 40 Women and later forming the Grameen Bank, today, the microcredit concept is practiced in more than 100 countries. According to Yunus "Microcredit provides a sustainable business model to solve the world's problems.

Sustainability refers to the long-term continuation of the Microfinance programme after the project activities have been discontinued. It entails that appropriate systems and processes have been put in place that will enable the Microfinance services to be available on a continuous basis and the clients continue to benefit from these services in a routine manner. This also would mean that the programme would meet the needs

of the members through resources raised on their own strength, either from among themselves or from external sources.

1.1.1 Government Regulation on Microfinance Institutions

Regulation is binding rules governing the conduct of legal entities and individuals whether they are adopted by a legislative body (laws) or an executive body (regulations) (CGAP 2002). Financial regulation involves prudential regulation which is the government measure to protect the financial soundness of the regulated institutions. This concept is emphasized because of great confusion results when regulation is discussed without distinguishing between prudential and non-prudential issues (CGAP 2002)

While self regulation is put forward as a viable option for Microfinance regulation, it has been found that self regulation does little more than improve the financial reporting and internal controls in the organization. Karlani (2009) argues that MFI responses to self-regulate have at best been 'naively optimistic', and highlights that the USA is on the path to greater government regulation after the failure of that country's experiment with self-regulation.

Prudential regulation or supervision, governs the financial soundness of licensed intermediaries' businesses in order to prevent financial system instability and losses to small, unsophisticated depositors. Such external regulation can be implemented through the existing regulatory and legal framework. Christen et al. (2003) suggest that this approach better promotes integration of the license MFI into the overall financial system and increases the likelihood that the regulatory changes are properly harmonized within the existing regulatory landscape. The Basel Committee (2010)

acknowledged the fundamental differences between micro financing and the traditional banking sector and the need to have Microfinance specific regulation.

The Microfinance act and the prudential regulations by the central bank identified financial capital requirements, loan provisioning and governance requirements as the key areas that an MFI wanting to transform to DTM must address. It is perceived that the appetite to transform to deposit taking MFIs is discouraged by the stringent regulations stipulated in the Microfinance Act 2006 which makes it a costly affair.

The survey done by FSD in (2012), states that, the conversion from a credit Microfinance institution to a DTM is a costly venture that is made even more expensive by elaborate regulatory requirements. "The current CBK requirements, especially with regard to branch security and prudential ratios, are not adapted to the Microfinance business in Kenya. To encourage other organizations which are performing well to transform, a review of actual risks for DTMs would be necessary to lower some of the requirements and therefore costs," reads the FSD report.1.1.2 financial sustainability of Microfinance Institutions.

Financial sustainability means that the MFI is able to cover all its present costs and the costs incurred in growth, if it expands operations. It would mean that the MFI is able to meet its operating costs, its financial costs adjusted for inflation and costs incurred in growth. Financial sustainability involves Operational Self-sufficiency (OSS) and financial Self Sufficiency (FSS) where the former shows ability of institution to cover costs of operations through internally generated income. An OSS of 100% means the organization can cover its operational cost comfortably and if it's less it means it is not able to cover its operational cost from its internally generated income. And the latter

showing whether revenue earned is sufficient to cover all operating, financial and loan expenses as well as to maintain the value of equity. An FSS of 100% and above means the organization is able to cover all its cost and there is surplus and if it's less than 100% then it means it can't meet its obligation sufficiently. According to Gibson et al. (2012) Microfinance sustainability is influenced by Capital/ asset ratio and Operating expenses/Loan Portfolio.

Nyamsogoro et al. (2010) identified Microfinance income and expenses as the major determinants of MFIs sustainability. They further said that, Microfinance income which includes, the interest rates, the loan amount, the repayment rates and other incomes are the key sources of income for MFIs while expenses would include operational costs like transaction costs and loan losses provision according to Shankar (2007). Transaction costs are a function of a number of groups that an MFI serves, and field workers compensation. The transaction costs are affected by the cost per transaction and the number of transactions. Administrative cost is another class of expenses incurred by MFIs. These are expenses incurred in running the organization. The expenses include staff salary, office running expenses, staff visits expenses, costs of running client training, transportation expenses, and costs incurred in setting-up and running a branch or collection centre like salaries, rent, and electricity among others.

1.1.3 Effects of Government regulations on the financial sustainability of Microfinance Institutions

The expansion of Microfinance services during the 1990's raised concerns on the part of financial regulators, donors and Microfinance gurus (Wright,2000).These interested parties saw the need to offer protection to depositors especially in instances where deposits were being used by MFIs for on-lending.

In most countries, especially the developing countries the Microfinance industry is largely either unregulated or self-regulated through social capital contracts. Recently, the issues of regulatory concerns of the Microfinance sector attract more interest than usual from the policy-makers and many countries, particularly in Africa. The arguments for regulation in micro-finance is primarily about ensuring systemic ability and protecting depositors. The enhanced private investment in the sector has some benefits to the sector, but this also raises more challenges with regard to the regulatory practices in micro-finance

The basic premise behind commercial Microfinance is profitability and self sustainability and transformation is viewed as the only means to achieve this. (Robinson 2005). However most regulatory measures may negatively affect the sustainability of these institutions due to the restrictions attached to them.

It is argued that to enable sustained growth many MFIs sought to transform their legal structures. Sensible cost benefit analysis should be undertaken in determining levels of regulation as the already high operating costs of micro financing are increased by satisfying regulatory requirements. Christen et al. (2003) estimates the cost of compliance at 5 percent of total costs during the initial year and 1 percent thereafter.

A regulated MFI is perceived as more secure and trustworthy than a non-regulated one. This is true for the both the consumers and the investing stakeholders. The consumers feel secure when they deposit their already scarce and hard-earned money with a MFI that is regulated by government regulations. This helps the MFI to extend more credit to people who desperately need it and thus provide the means for a better life. On the other hand, a regulated MFI, which regularly publishes its activities and

financial performance, attracts more funders. A regulated MFI is more likely to get funders from the commercialized investors since they show their accountability through proper and systematic reporting, often carried out by capable, authorized personnel.

1.1.4 Microfinance in Kenya

The Kenyan Microfinance sector began in the late 1980s after the collapse of Kenyan industries and retrenchment of workers. It began with a few NGOs that set up pilot programs providing donor funded credit services. According to AMFI website there are 59 formal Microfinance institutions (MFIs) with 9 Regulated as Deposit Taking Microfinance institutions (DTMS), 5 banks offering Microfinance services, 3 Wholesalers advancing loans to other MFIs, 3 Insurance companies offering Insurance to Microfinance and 39 Credit only MFIs.

The business takes different forms raging from those who are regulated as deposit taking MFIs, those registered as Non-governmental organizations, Church based, Merry go round (Chamas), Rotating Savings and Credit Associations (ROSCAs) and investments groups. All these groups came in to bridge the gap created by main stream banks. Currently, MFIs serve over 12 Million clientele according to the Association of Microfinance Institutions` (AMFI) data 2012. 98% of the formal Microfinance adopts the lending model of Groups Based invented by Professor M. Yunus which has seen many organizations grow and improve the living standards of the poorest households in the society. Their success stories and contributions to both social and economic factors has made the industry become an icon in the country`s economy hence many parties have drawn their interests to it.

The Economic Pillar of Kenya's Vision 2030 objective of enhancing deposit mobilization, increasing savings levels and improving the general quality of life for all citizens, has seen the government introduce regulations through the Microfinance act 2006 which were aimed at bringing sanity to the industry. The law has not however been implemented to the letter since the Micro-lenders businesses are not controlled or monitored hence giving room for all forms of entities to scramble for the unregulated business.

The Kenyan Microfinance sector is one of the most vibrant in Sub-Saharan Africa. It includes a diversity of institutional forms and a fairly large branch network to serve the poor. The absence of regulation has allowed innovations to take place: institutions were set up easily without any barriers, such as minimum capital requirements, governance requirements, capital adequacy, and loan provisioning.

Section 3(2) of the Act, empowered the Minister for Finance to make regulations specifying the Non Deposit Taking Microfinance business and prescribe measures for the conduct of the specified business (MF Act, 2006). Currently 9 Microfinance institutions have transformed to Deposit Taking Microfinance institutions (DTMS) which are supervised by the (CBK) while all other lenders both formal and informal are operating without any supervision.

It is perceived that the appetite to transform to deposit taking MFIs is discouraged by the stringent regulations conferred by the Microfinance Act 2006. The survey done by Financial Sector Deepening (FSD) (2012), states that, the conversion from a credit Microfinance institution to a DTM is a costly venture that is made even more expensive by elaborate regulatory requirements.

The challenges facing Microfinance Institutions are limited capacity of the Microfinance Institutions in terms of staffing, management and financial gap in the funding needs to meet the growing demand, due to the continued success and rapid growth of Microfinance.

1.2 Research Problem

Since the concept of Microfinance in Kenya began in 1980s, it is until recently that the regulations have been introduced. Lack of complete regulatory framework for the industry saw emergence of many forms of institutions doing the business due to the easiness in formation. The risk of this kind of business is that there is no accountability and no guarantee of fair play in the market. Unscrupulous business people may use the window to do unethical business as well as steal from the innocent public.

Since the introduction of the law in 2006 only, 9 institutions have transformed to DTMs which enable them expand their business through agency banking, increase their profitability through good governance qualified and experienced staff and improve the quality of their loan book. Cull et al. (2009), using Microfinance exchange data, found that Microfinance institutions subjected to more rigorous and regular supervision are not less profitable compared to others despite the higher cost of supervision. In review of the implications of supervision on the performance of financial intermediaries by Barth et al. (2004), they found no evidence of a positive impact of higher regulatory power on bank performance.

Hartarska and Nadolnyak (2007) using positive approach to assess if regulated MFIs achieve better sustainability and outreach than unregulated MFIs they found that

regulatory involvement does not directly affect the performance both in terms of operational self-sufficiency or outreach. Jansson and Wenner (1997) on the financial regulation and its significance for Microfinance in Latin America and the Caribbean, they found that, entry requirements, minimum capital, capital adequacy, Loan provisioning, operational restrictions, auditing and Control of Loan classification and provisioning, collateral/guarantees are the main areas of financial regulation that have a negative differential impact on Microfinance institutions since impose restrictions which arecostly to the Microfinance institutions.

AMFI (2012) found that, compulsory and voluntary deposits as of Dec 2011,were 30.2% and 10.5% respectively with positive growth trends in voluntary savings, liquidity deposit and liquidity over total assets ratio (cash and balances at banks) of 100.6% and 9.8% respectively as of Dec 2011. Capital adequacy stands at 15.5% and leverage at 5.4 as of Dec 2011. (AMFI, 2012). FSD (2012) found that, the relative higher license fees and infrastructure requirements are not in favor of supporting the setting up of community based DTMs. They also found that meeting the regulatory such as capital requirements is not a challenge but realizing the related costs to comply with the non-capital requirements such as ICT and DTM infrastructure. K`Aol (2003) found that, MFIs in Kenya are licensed under different acts of Parliament; some of these forms of registration do not address such issues as governance and accountability.

It is evident that none of the above studies was done on the effect of the regulations on the financial sustainability of MFIs in Kenya. The purpose of this study was to determine whether financial capital requirement, liquidity requirements and loan

provisioning requirements and introduced by the Microfinance act 2006 and prudential guidelines by the CBK in 2008 has any effect on the financial sustainability of MFIs in Kenya.

1.3 Research Objectives

1.3.1 General objective

To determine the effect of government regulation on the sustainability of Microfinance institutions in Kenya

1.3.2 Specific Objectives

i) To identify how capital adequacy requirements affect the sustainability of MFIs in Kenya

ii) To determine how liquidity requirement affect the sustainability of MFIs in Kenya

iii) To examine how loan provisioning affect the sustainability of MFIs in Kenya

1.3.3 Research Question

(i) How does government regulation affect the sustainability of MFIs in Kenya?

1.4 Value of the Study

Knowing the effect of government regulations on Microfinance`s sustainability will help stake holders to embrace or reject change in the government regulation.

The Government being the regulator will be informed on the effect of these regulations on the sustainability of MFIs who play a big role in the economy as

financial intermediaries, contributing to expand the size of production in the economy, and generating tax revenue for the government. They provide financial facilities to both consumers and business people who in turn increase the Gross National Income (GNP) hence improved pa capita income.

This study is of significance because it is carried out from the perspective of the Kenyan economy and business and researchers can use it in future to further build up knowledge in this area.

Regulations help to define the legal status of institutions, outlining the allowable and prohibited activities, as well as the scope of offering those services. Knowing its effects will help in creating an environment of responsible lending, for lending institutions, and other services.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides theories of Microfinance regulations, determinants of financial sustainability, main review of past studies done in the area, and Summary of the chapter

2.2 Review of Theories

2.2.1 Solidarity groups lending Methodology Theory

Solidarity group model used by Grameen Bank was founded by Muhammad Yunus in Bangladesh in 1976; it was the first micro lending program to use a solidarity group approach. In this model a staff identifies a potential village and conduct a one or two week training course in the village to orient future clients to the philosophy, rules and procedures of the program. Then, groups of five unrelated, self-selected prospective borrowers are formed. Between six and eight of these five member groups come together to form a village "center", groups of which in turn form Regional Branch Offices. Branch workers work with a large number of clients (usually 200-300) and do not evaluate individual loans. Instead, branch workers leave clients or members to assume responsibility for much of the management of financial services. In the Grameen model, groups of borrowers do more than just guarantee loan repayment they become a part of the institutional structure of the bank. Hence, the institution is built from the ground up. (Laura et al. 1998)

New groups of potential borrowers meet and save for a minimum of 4 weeks before any loans are granted. The group appoints a group leader (whose position rotates among all group members) and group members determine the rotation of access to credit. Two members of the group receive the first loans, which are generally under $100. After timely repayment for four to six weeks, two additional members receive

loans. After another month, the fifth member (usually the group leader) receives his or her loan. The responsibility for loan repayment is the legal obligation of all five group members, regardless of which group member received the loan. If any group member defaults on a loan, the other four members must cover the loan. None of the members will receive further loans until the delinquent loan is repaid. In this sense, a sense of collective responsibility serves as collateral on the loan. When groups have established a good repayment history, loan amounts are gradually increased, but normally do not exceed $300.

In addition to repayment requirements, the Grameen Bank incorporated strong social requirements into its program known as the "Sixteen Decisions." These requirements state that borrowers must educate their children; maintain their own health and the health of their families (by boiling all drinking water, maintaining a clean environment, using pit-latrines, and exercising); commit to growing vegetables all year round; not participate in the dowry system.

The Grameen model provides credit to the very poor in rural areas without requiring any collateral. To this clientele, who historically have very little access to credit and almost no access to credit at low interest rates, microloans have proven an effective weapon in the fight against poverty. The Grameen Bank has received worldwide attention for this model. More than 4,000 people from some 100 countries have gone through Grameen's training and exposure programs over the last decade. Many of those visitors have returned to their countries and replicated the Grameen Bank model a total of 223 Grameen replication programs in 58 countries. The Grameen model works best in densely populated rural areas with a static population. Clients are usually women, and loans are usually used for agriculture and retail.

2.2.2 Pathways of impact of Microfinance

The simplest theories of Microfinance impact assume the borrower is the sole operator of a single income generating activity, the output of which is constrained either by lack of capital or by the high marginal cost of credit relative to its marginal returns. Easing the capital constraint permits the operator to increase output, net income, profits, and hence their own welfare (de Mel et al. 2008). Ability to borrow, or debt capacity, depends on the capacity of actual or potential income from the business to meet borrowing costs. More realistic theories take into account that debt capacity is also bound up with business vulnerability, risk and uncertainty.

In the absence of insurance services, credit not only eases the capital constraints but can also serve as a mechanism for spreading risks. For example, access to credit (even if not actually taken up) can raise income by reducing the management of risk through livelihood diversification (Zeller et al. 2001). Borrowers' imperfect knowledge and limited computational capacity means that new forms of credit may have an important impact on the mental models that guide their business decisions (Copestake 2009). More generally, research into the psychology of credit among poor people has undermined the view that credit is generally unlikely to have an adverse impact on borrowers. This argument is based on the assumption that if credit did make them worse off, they would not have borrowed in the first place (Rosenberg 2010). However, possibilities for negative impacts of Microfinance were early and clearly recognized in the framework developed by Sebstad et al. (1995).

A further complication arises because poor people's management of livelihood related resource allocation, risk and uncertainty cannot be separated from decisions about household reproduction (Gertler et al. 2009). As a factor in the management of

diversified and seasonally volatile 'household economic portfolios' (Sebstad et al. 1995), the impact of credit on the cost of consumption smoothing may be as important as its impact on enterprise promotion (Morduch1995, Rutherford 2001, Collins et al. 2009). Because portfolios are co-produced by household members both credit transactions costs and the potential benefits of credit can also profoundly affect intra-household relationships, including the gender division of labour, income and power. Induced changes in social relations inside and beyond the household are also associated with important changes in individuals' aspirations and understanding.

Since changes in credit relations have direct effects on all aspects of poor people's households (and indeed wider kinship and neighborhood networks) theoretical pathways can readily be traced, at least in theory, from credit to almost any indicator of individual socio-economic status or human well-being with positive or negative outcomes .For example, improved access to credit for cash crop production controlled by men may result in reallocation of resources away from food crop production controlled by women, with adverse effects on their children's nutrition. Likewise, improved access to credit for women's trading activities raises the opportunity cost of women's time with possible adverse impact on child care. Empirical testing of multiple pathways is relatively rare, perhaps because the lines of causation are so complex, with many relevant variables having both intrinsic and instrumental value.

It cannot be assumed, for example, that credit impact is only mediated via its effect on business income: direct relational, attitudinal and cognitive effects on individuals can be equally profound (Chen 1995). Despite these complications, most research into the impact of credit on poverty continues to be framed by relatively simplistic causal models that link credit as an exogenous 'treatment' on individual borrowers to one, or

more, indicators of well-being mediated via induced effects on household livelihoods and interpersonal relations.

An alternative approach is to explore the effect of aggregate changes in financial systems on higher units of social organization, from villages to national states. For example, credit supply may be treated as a resource constraint on a multi-sector input-output model, with distributional effects on poor people identified through use of a social accounting matrix. Alternatively, simulation models or cross-country multiple regression analysis can be used to explore the link between credit and indicators of national performance such as gross domestic product (GDP), which have testable relationships with poverty. An important example of this approach established positive links between rural credit expansion in India, district level growth performance and associated changes in poverty incidence.

In summary, the theoretical case for Microfinance rests on the potential for joint liability and other innovations by MFIs, including individual liability with joint monitoring, to resolve issues such as adverse selection and moral hazard and to reduce MFI transaction costs. Mitigating financial intermediation constraints could lead to expansion of economic activities, higher net returns to household assets, and higher income. Furthermore, subsequent theory could be expanded on positive and negative potential relational, cognitive and attitudinal impact of access to credit

2.2.3 Microfinance and imperfect financial markets

The concept of group lending is commonly heralded as the main innovation of Microfinance and claims to provide an answer to the shortcomings of imperfect credit markets, in particular to the challenge of overcoming information asymmetries

(Morduch 2005, Bauchet & Morduch 2010,). Information asymmetries may lead to the distinct phenomena of adverse selection and moral hazard.

In the case of adverse selection, the lender lacks information on the riskiness of its borrowers. Riskier borrowers are more likely to default than safer borrowers, and thus should be charged higher interest rates to compensate for the increased risk of default. Accordingly, safer borrowers should be charged less provided each type can be accurately identified. Since the lender has incomplete information about the risk profile of its borrowers, higher average interest rates are passed on to all borrowers irrespective of their risk profile (Morduch 2005, Bauchet & Morduch 2010,). In 'moral hazard' generally refers to the loan utilization by the borrower, i.e. the lender cannot be certain a loan, once disbursed, is used for its intended purpose, or that the borrower applies the expected amounts of complementary inputs, especially effort and entrepreneurial skill, that are the basis for the agreement to provide the loan. If these inputs are less than expected then the borrower may be less able to repay it (Ghatak and Guinnane 1999).

In addition to adverse selection and moral hazard, high transactions costs, the provision of incentives to borrowers for timely repayment as well as the design and enforcement of adequate loan contracts are further challenges that play a role in explaining the failure of rural credit markets. In this context Microfinance and its group lending approach steps in. Microfinance advocates claim that the formation of joint liability groups (JLGs) with its focus on peer pressure and monitoring responds to these challenges. As a result, the theoretical Microfinance literature has focused on developing models that explain the workings of the JLG concept and its success, in particular, in overcoming information asymmetries.

The standard model of lending commonly contains two mechanisms which address the issue of information asymmetries: assortative matching5 or screening to deal with adverse selection, and peer monitoring to overcome moral hazard (Ghatak and Guinnane 1999). In this widely cited paper, Ghatak and Guinnane (1999) reviewed how the principle of group lending facilitates assortative matching or screening and peer monitoring. Early models were developed by Stiglitz (1990) and Varian (1990) and Banerjee et al. (1994). These models examined how group liability schemes resolve moral hazard and monitoring problems. Other models developed by Ghatak (1999 and 2000), were inspired by Stiglitz and Weiss (1981) and focused on adverse selection and screening mechanisms.

Moreover, social ties among group members, i.e. social connections in the language of Karlan (2007), also referred to as social capital; appear to play an important role in the context of group liability schemes in terms of enhancing repayment behavior, as theorized by Besley and Coate (1995) and Wydick (2001). The overall thrust of the literature is that the concept of JLGs does indeed overcome adverse selection by introducing better screening mechanisms.

In addition, peer monitoring helps to overcome moral hazard and provides group members with incentives to repay loans resulting in high repayment rates (Ghatak and Guinnane 1999). In spite of that, Hermes and Lensink (2007) argued that MFIs are gradually abandoning the group liability scheme in favour of individual liability schemes; however, the literatures on theorizing individual Liability schemes are surprisingly scant. Thus it seems that theory has lagged behind recent developments in the sector and requires some attention.

2.3 Determinants of Financial sustainability of MFIs.

Financial sustainability means that the MFI is able to cover all its present costs and the costs incurred in growth, if it expands operations. It would mean that the MFI is able to meet its operating costs, its financial costs adjusted for inflation and costs incurred in growth. Financial sustainability involves Operational Self-sufficiency (OSS) and Financial Self Sufficiency (FSS) where the former shows ability of institution to cover costs of operations through internally generated income. An OSS of 100% means the organization can cover its operational cost comfortably and if it's less it means it is not able to cover its operational cost from its internally generated income. And the latter showing whether revenue earned is sufficient to cover all operating, financial and loan expenses as well as to maintain the value of equity. An FSS of 100% and above means the organization is able to cover all its cost and there is surplus and if it's less than 100% then it means it can't meet its obligation sufficiently. According to Gibson et al. (2012) Microfinance sustainability is influenced by Capital/ asset ratio and Operating expenses/Loan Portfolio.

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expenses include staff salary, office running expenses, staff visits expenses, costs of running client training, transportation expenses, and costs incurred in setting-up and running a branch or collection centre like salaries, rent, and electricity among others

2.4 Empirical Review

The first prudential standard is the minimum amount of liquid capital that MFIs should raise to enter the regulated market (Staschen, 2003). This requirement is an absolute measure of solvency and is usually established by primary regulation (Staschen, 2003). It is justified on the grounds of influencing the structure of the financial system: it serves as a cushion in periods when the institution shows an unhealthy situation due to its own performance or to exogenous factors such as economic downturns (Christen et al, 2003).This prudential standard is conceived to support the start-up and initial years of operations of an MFI until it reaches its break-even point (Jansson et al, 2004). Some argue that high minimum capital requirements could act as barriers to market entry to possible new players that are not able to raise sufficient capital for the initial stages as a regulated institution (Jansson, 1997). But, on the other hand, a high minimum capital requirement could help to mitigate moral hazard behaviour among shareholders (Jansson et al, 2004). In addition, a high minimum capital requirement is often seen as one tool for limiting the number of institutions that the supervisory body should be responsible for monitoring, especially if the supervisory resources are scarce (Christen et al, 2003).

In one among four studies on Microfinance Tradeoffs, conducted by Cull et al. (2009), which looked at Regulation, Competition, and Financing, using an updated MIX Market dataset, they examined the effect of regulatory supervision on the profitability of Microfinance institutions. In particular, they investigated how regulated institutions

manage the financial and administrative burdens of complying with regulation, looking at profits, business orientation, outreach, and the share of employees who work in the field.

Cull et al (2009) looked for evidence that regulation provides benefits by improving loan quality. By conducting econometric analyses of the dataset described above, and of a subset, the 154 institutions that both reported detailed financial information and were subject to regulatory supervision. They further estimated the impact of prudential regulation on profitability and financial self-sufficiency. The findings reflected that being regulated often permits institutions to collect deposits and thus gain a cheaper and/or more stable source of capital. Ledgerwood and White (2006), draw on four to six years of data for nine MFIs to report that "experience to date has shown that as transformed institutions mature deposits as a percentage of funding liabilities increases." This therefore demonstrates the desire for more MFIs to grow into the regulatory realm, where they will have access to increased funding sources, one of which is through mobilization of voluntary deposits, as a cheaper and more reliable source of funding.

Mersland and Strom (2009) also conducted an econometric analysis of the impact of regulation with cross-institution data. In line with the above findings on regulation and profitability, they found that regulation does not have a significant impact on financial performance. They did not find evidence for the trade-off with outreach. Hartarska and Nadolynk (2007) also show that regulation does not directly affect the performance of Microfinance institutions, either in terms of operational self-sustainability (OSS) or outreach. They find that deposit-taking institutions have broader outreach, though, suggesting that regulation may offer an indirect benefit by permitting institutions to

expand.

A study of Latin American NGOs that had transformed into financial institutions, found that the minimum capital did not impose a constraint as the amount required by these institutions was either the same or less than the amount required to create and maintain profitable operations (Rhyne, 2002).

2.5 Conclusion of the literature review

Literature review gives the basis of forming theories. Having analyzed various writers, Loan provisioning and risk classification, capital adequacy and Liquidity requirements are identified as areas of concern. It is not evidenced that any of the listed variables have negative impacts on the sustainability of MFIs, in the contrary many researchers found that government regulation enables the organization to increase its capital through cheaper deposit mobilization, others believed that minimum capital requirements enables the institution to operate until it breaks even. Others demonstrated that Loan provisioning improved loan quality through provisioning and risk classification.

The Microfinance institutions in Kenya are not different from others in the third world countries as analyzed by various researchers in the Empirical review. Since they share some characteristics like the formation, the clientele, the researcher is of the opinion that the derived benefits purported by many researchers elsewhere does not apply in Kenyan industry and instead believes that the above three identified variables have affect the MFIs sustainability. The researcher is convinced that a gap exists and needs to be investigated to establish whether this hypothesis is true.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives an explanation of the research designs, methodology and justification for using this research design. It has also described the characteristics of the population which was used and has focused on the sampling design and procedures, data collection instruments and finally appropriate data analysis techniques that was generate the data.

3.2 Research Design

This study adopted a descriptive survey design. Kotler and Armstrong (2000) observed that this method was best suited for gathering descriptive information where the researcher wants to describe the state of affairs as they existed. The design often results in the formulation of knowledge and solutions to problems. Since this study had the prime goal of identifying the effect of government regulation on the financial sustainability of MFIs in Kenya, involving how three forms of independent variables affect the dependent variable, it was felt that the descriptive survey design would best help the researcher in achieving this.

3.3 Population

The target population comprised of 48 Retail Microfinance Institutions in Kenya registered with the Association of Microfinance Institution.

3.4 Sample Design

A disproportionate stratified random sampling was used to pick sample of 30 MFIs at random comprising of 8 DTMs and 22 credits only retail lenders, for this survey. A stratified sampling procedure is preferred since it assures the researcher that the

sample is representative of the population in terms of the factors that were used for stratification

3.5 Data collection

This study relied on secondary data. Secondary data was collected using a form which was guided by the objectives of this study. Audited financial statements for 3 years for the selected MFIs were obtained from AMFI.

3.6 Data Analysis.

Analysis of the data was summarized and analyzed using cross tabulations descriptive statistics by help of SPSS software. According to Mugenda and Mugenda (1999), descriptive statistics enabled meaningful description of a distribution of scores or measurements using a few indices or statistics. Presentations of the results was done using tables, bar and pie charts.

Multivariate regression model was used to develop a linear equation function which will be used to determine whether there is any relationship between government regulation and financial sustainability of the selected MFIs. Further using the model a correlation of coefficients was calculated to establish magnitude of relationship.

This model will take this form; $Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\mu$

Where; Y = the Financial Sustainability

α = Constant

β_1, β_2 and β_3 = the beta coefficient of the, variables

X_1= Capital Adequacy requirements

X_2 = Liquidity Requirements

X_3 = Loan Provisioning Requirements

μ = Standard error of Measurement

Capital adequacy was calculated as a ratio of Equity against risk weighted assets for three years. Loan provisioning will also be calculated using the ratio of portfolio in arrears against outstanding total loan to determine the percentage of the provision to the financial statement while liquidity was obtained as a ratio of current assets against Current liability for three years. Sustainability as measured by OSS for the same duration was calculated. An average was calculated for each variable per institution which was fed to SPSS software where, beta coefficients for the variables were obtained. Correlation coefficient to test the magnitude of the relationship between the dependent and independent variable was also obtained.

CHAPTER FOUR: DATA ANAYSIS, INTERPRETATIONS AND DISCUSSION

4.1 Introduction

This chapter contains the data analysis and interpretations of the findings on the effects of Government regulation on the financial sustainability of Microfinance Institution in Kenya and the discussion of the findings.

4.2 Quantitative Analysis

Numerical data was obtained from 30 Kenya based microfinance institutions that are also members of the Association of Microfinance Institutions. The data collected was used to calculate capital adequacy, liquidity and loan provisioning requirement. The variables under investigation for my research were; Descriptive statistics, beta coefficients and Coefficient of correlation. With the use of SPSS software, I was able to summarize and interpret the raw.

4.2.1 Descriptive statistics

Out of 30 institutions examined, it was noted that over the three years studied, the majority of institutions had a maximum capital adequacy ratio of 35.6 and minority with a minimum of 0.2. The industry had a mean of 5.4 and standard deviation of 11.01.This is an indication that the deviation from the mean was too high which is seen in the range between the Maximum and the minimum. An observation made, was that most institution did not maintain the risk weighted assets as can be seen in appendix 2

Liquidity threshold was adequately maintained by 98% of the MFIs studied which is a very good indication of sustainability. A high liquid company is preferred because it's

able to meet its short term obligation on time. From an MFI`s perspective it means all clients` loan can be disbursed without any delay. The study showed that the range from minimum ratio was 0.31 and the maximum was 27.The disparity between institutions was very high. The industry recorded a mean of 29.5 and a standard deviation of 75.7.It is good to note that a mean of 29.5 is good because it means the ratio between the current assets to current liabilities is 29.5:1.Loan provisioning is a ration between the loans in arrears against the outstanding loan book. The study showed that few institutions had portfolio at risk ratio of 0 and maximum of 0.13.The mean of 0.05 and a standard deviation of 0.037 is an indication that most institutions had a PAR of 5% which means that the loan quality was within allowed market threshold. The table below summarizes the descriptive statistics of the study.

Table 1: Descriptive Statistics of the study

	N	Minimum	Maximum	Mean	Std. Deviation
Sustainability	27	0.29	6.57	1.9743	1.50042
Capital adequacy requirement	15	0.2	35.95	5.4367	11.01432
Liquidity requirement	28	0.31	272.18	29.5361	75.77726
Loan provisioning	27	0	0.13	0.047	0.03688
Valid N	14				

Source: Author 2013

4.2.2 Multivariate Analysis

Multivariate analysis denotes a regression equation that has more than one independent variable**.** The value of Y is influenced by more than one independent

variable. It is important to keep in mind that each coefficient is influenced by the other variables in a regression model. Because predictor variables are nearly always associated, two or more variables may explain the same variation in Y.

4.2.2.1 Beta coefficients and the Constant

In statistics, beta coefficients are the estimates resulting from an analysis carried out on independent variables that have been standardized so that their variances are 1. It refers to how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable. Standardization of the coefficient is usually done to answer the question of which of the independent variables have greater effects on the dependent variable in a multiple regression analysis, when the variables are measured in different units of measurement. It should be noted that each coefficient does not explain the total effect on Y of its corresponding variable, as it would if it were the only variable in the model and the higher the coefficient the more the effect is.

In this study the multivariate equation was of the form of Y= Y=1.153 + $0.256X_1$ + $0.853X_2$ -$0.014X_3$. The beta coefficients show the estimates of predators; X1, X2 and X3. Using a dataset of 30 Microfinance institutions in Kenya, Capital adequacy was found to have a beta coefficient of 0.256.A Positive beta means that the capital adequacy had a positive effect on the financial sustainability of MFIs in Kenya. Liquidity showed a positive beta of 0.853 which means that it had a positive effect on the financial sustainability of MFIs in Kenya. Loan provisioning on the other hand had a negative beta of -0.014 which mean that it had a negative effect to the financial sustainability. Constant or Y intercept in this study was 1.153 which is the value of

sustainability if X1 X2 and X3 had a value of Zero. The table below summarizes the beta coefficients and the constant of this study

Table 2: Summary of Beta Coefficients and constant of the study

	Un-standardized Coefficients		Standardized Coefficients	t-Statistics	Sig.
	B	Std. Error	Beta		
Constant	1.153	0.618		1.865	0.092
Capital adequacy requirement	0.034	0.023	0.256	1.501	0.164
Liquidity requirement	0.014	0.003	0.837	4.288	0.002
Loan provisioning requirement	-0.523	7.297	-0.014	-0.072	0.944

Source: Author 2013

4.2.2.2 Coefficient of determination

In statistics, the coefficient of determination denoted R^2 and pronounced R squared, indicates how well data points fit a line or curve. It is used in statistical models whose main purpose is either the prediction of future outcomes or the testing of hypotheses, on the basis of other related information. It provides a measure of how well observed outcomes are replicated by the model, as the proportion of total variation of outcomes explained by the model. It also shows how variations in the dependent variable are explained by the variations in the independent variables. Table 4 below summarizes the coefficient of determination.

Table 3: Coefficient of determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853[a]	.728	.647	.89485

a. Predictors: (Constant), x3, x1, x2

Source: Author 2013

Table 5 presents the regression model goodness of fit statistics to determine whether financial sustainability has a linear dependence on capital adequacy, Liquidity and loan provisioning requirement, the study established an R-squared value of 0.728.The coefficient of determination depicts that the three government regulation measures contribute about 73% to the variation in financial sustainability of MFIs while other factors not studied in this research contribute 27% variability of the financial sustainability of the MFI firms in Kenyan Microfinance sector.

4.2.2.3 Correlation Coefficient

Correlation coefficient denoted as R, in table 5 above shows the magnitude of the relationship between the Dependent variable and the Independent variable. The model showed the overall correlation value of 85.3%. This depicts a very good linear dependence between the financial sustainability and capital adequacy, liquidity and loan provisioning requirements

Individually, the study showed that, capital adequacy had a positive correlation of 16% meaning that any increase in one unit of capital adequacy will lead to an increased financial sustainability of 15.8%.Liquidity was found to have a positive correlation of 41.6% meaning that a change in one unit of Liquidity will lead an

increase in financial sustainability with 42%.Loan provisioning on the other hand had a negative correlation of 410.8% which mean that an increase in one unit of Loan provisioning will lead to a decrease of financial sustainability by 41%. Table 6 below shows the individual correlation between the financial sustainability and the capital adequacy, liquidity and loan provisioning requirement.

Table 4. Correlation coefficient of the study

	Capital adequacy requirement	liquidity requirement	Loan provisioning requirement
Sustainability	0.158	0.416*	-0.405*

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author 2013

4.3 Summary and interpretation

Government regulation was measured using three variable namely; capital adequacy, liquidity and loan provisioning while sustainability was measured by operational self sufficiency. According to the results obtained from the sampled MFIs, the relationship between the government regulation is expressed in equation $Y=1.153 + 0.256X_I + 0.853X_2 -0.014X_3$. Beta coefficient shows the influence the independent variable has on the dependent variable. In this case, the beta coefficients for capital adequacy, liquidity and loan provisioning and the constant were obtained as seen in the above equation.

Beta coefficients show the estimate of the variables. The higher the value of the coefficient is the more the variable influences the dependent variable. In this equation, liquidity has the highest coefficient of 0.853 which means it has a higher positive effect on the Sustainability of Microfinance institutions. Capital adequacy follows

with a positive coefficient of 0.256 while Loan provisioning shows a little Negative effect on the financial Sustainability.

Testing of linear dependence of the model a Correlation coefficient of 85.3% was obtained. This is a high correlation which means that the model can be used to predict the variations of financial sustainability which is caused by the variability caused by the change in independent variables.

Coefficient of determination of 72.8% obtained means that 72.8% of the variations of financial sustainability caused by variations caused by change in capital adequacy, liquidity and loan provisioning can be explained by the model.

On individual correlation, the findings showed that at 5% confidence level there was a 41.6 percent positive correlation between Liquidity and Financial sustainability of MFIs Capital adequacy also showed a low positive correlation of 15.8 percent while Loan provisioning showed 40.8 percent negative correlation on the financial sustainability.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The three objectives of the study were to determine the effects capital adequacy requirement on MFIs` financial sustainability, to identify the effect of liquidity requirement on the financial sustainability and to examine the effects of Loan provisioning requirements on MFIs` financial sustainability. Data was collected using secondary from audited financial statements and analyzed using descriptive statistics.

The study showed that, capital adequacy requirements and liquidity requirements had positive effects on the financial sustainability while loan provisioning had a negative effect on the financial sustainability of the MFIs in Kenya. There was a low positive correlation exhibited by capital adequacy and liquidity requirement of less than 50% on the financial sustainability of the Microfinance institutions in Kenya. Loan provisioning on the other hand showed a very low negative correlation of less than 20% on the sustainability of the Microfinance institutions in Kenya.

Government regulation is inevitable and Microfinance should prepare to comply with the existing law. This is because there is no prove that government curtails the operations of Microfinance or affect the financial sustainability. In contrary the government regulation will help the MFIs to be more sustainable though care should be taken on the loan risk classification which showed a negative effect on the financial sustainability.

The study showed that most institutions both regulated and non-regulated had maintained liquidity ratio of 2:1 between the current assets and current liabilities.

However almost half of the studied institutions do not maintain the risk weighted asset. On sustainability, Most MFIs reported an OSS of greater than 100 meaning that currently, the organizations are able to break even and have at least have some surpluses.

5.2 Conclusion

An inference can be drawn from the findings that, the government should consider ways of ensuring that all MFIs operating in Kenya are regulated to ensure an inclusive regulatory frame work. This will ensure that financial inclusion for low income people is achieved. Having a strong linear relationship between the government regulation and the financial sustainability means that government regulation is important for sustainable operations of Microfinance institutions.

Government regulation brings sanity in the Microfinance business. It protects depositors who are very prone to fraudsters through maintaining capital adequacy ratios and attract investor confidence. Maintaining liquidity ratios ensures that the Microfinance has money always to lend and meet all other short term obligations. Maintaining a good portfolio quality mean that the organization is able to get back what it lends. By ensuring appropriate provisions are made in the financial statements for non performing loans makes the organization to enhance collection mechanisms and having due diligence when approving loan. As a result the borrowers become responsible as well as the organization becoming sustainable.

Review of government regulation was done in 2012 by FSD Kenya. Their main focus was getting the regulation experience through KWFT and Faulu Kenya. Though they found that Getting regulated is an expensive affair because of initial capital

investments on ICT Platform, changing the company`s form and employed high qualified staff did not have any evidence on the effects of government regulation on the financial sustainability of these MFIs. This is study is therefore an eye opener to all stake holders in the Microfinance sector who might have feared the effect of getting regulated to know indeed the regulation helps their financial sustainability.

The government should be careful in its implementation of the law if the vision 2030 of access to financial services is to be realized as this will lead to a more disciplined business. Government should also spread the risk classification to ensure that the change from the current practice is gradual to enable MFIs to adjust their lending policies.

5.3 Recommendations

Emanating from the findings, the study recommends that Government should tighten up the regulations governing MFIs` businesses in Kenya to ensure a complete regulatory framework. This will ensure that it is one stop for the licensing of Microfinance operations in Kenya as opposed to the current system where there are different forms of institutions offering Microfinance services.

Government should encourage transformation of all MFIs to DTMs to ensure that it controls all the Microfinance businesses as it does in banks. This will attract more investors in the industry and as a result, will increase the financial access to the poor and the marginalized people who are the unbanked population is achieved. MFIs on the other hand should try to improve the quality of their loan portfolio to maintain the minimum risk percentage so that they can attract more investors. They should also

maintain the minimum capital adequacy levels and liquidity to ensure that clients are protected and they are able to meet their short term obligations.

The government should assist MFIs by creating a fund that can lend to the institutions willing to transform but lacks capital this is because it is evident that getting regulated is very expensive just like Jansson (1997) found that entering the regulated market requires a huge capital outlay like, raising the Minimum capital before getting the license, investing on business locations and security

The Microfinance and all the sector stake holders in the sector should embrace the government regulations and work towards compliance so that they get the competitive hedge and attract more investors. Finally the government should enact a law that requires that all MFIs should belong to the Association of Microfinance institutions the banks cannot be allowed to operate without being a member of Kenya bankers association. This will promote accountability and make the industry grow stronger in terms of resource mobilizations and policy influence.

5.4 Limitations of the Study

Microfinance in Kenya operates in a very dynamic environment with a very steep competition from banks, SACCOs and Mobile phone operators. This makes it hard to release their audited financial statements especially those are not required by law as in the case of DTMs. This therefore made it hard for the researcher to obtain the full sets of audited account for all the MFI sampled for this study.

Kenya lacks a complete regulatory frame work for all registered Microfinance business. The threshold required by law is not observed by all the MFIs for example Liquidity ratios, capital adequacy and loan provisioning ratio are not for mandatory all operators apart from the DTMs. This therefore made it hard for the researcher to obtain all the data required to test the regulation since most of credit only maintained the ratios for their own controls.

In Microfinance operations expenses classification differ, as well as income. This is because some are registered as NGO, Ltd companies, and all the forms. Classifications of expenses follow different format this limited the researcher from validating the information in the audited financial statement.

Disproportionate sampling was used to select 30 MFIs due to different forms of MFIs, who play role in the sector. The strata contained two sets of institutions those that are DTMs and credit only MFIs. It is in these strata that the sample was picked at random. This was a limitation as it did not give all the 30 institutions equal chances of being picked

Membership of AMFI is voluntary though it's the one recognized by the government to speak for MFIs meaning there other MFIs which are operating out there and their data was not part of this study. The researcher was therefore limited to the data available at MFI only for this study.

5.5 Suggestions for Further Research

It will be significant for more research to be conducted considering other variables which are instrumental to sustainability such as the cost of transformation and its correlation on the financial Sustainability to understand why many MFIs are scared to transform because there is no evidence that the current provisions in the act does indeed affect the MFIs financial sustainability negatively.

It will be important to do further research on factors that hinder Microfinance institutions from transforming to Deposit Taking Microfinance institutions. In Kenyan scenario there seems a big obstacle to transformation. This is evidenced by the fact only 9 Microfinance institutions that have transformed to DTM status since the operationalization of the Microfinance act 2006 yet it is proved that no danger to their financial sustainability.

A research should also be conducted to assess the impact of government regulation on the operations Deposit Taking Microfinance. This can be used as a case study by all the MFIs that are willing to transform but are fearful of the aftermath of transformation. They need to identify whether there is any positive or negative impact of being regulated.

Also research should be done on the effect of government regulation on the social mission of the MFIs. This is because most MFIs operate to improve the livelihoods of the poor individuals. By introducing regulations might increase the cost of operations which in turn is passed to client by increasing the interest rate. This therefore will help the players and policy makers to understand the effect such laws.

REFERENCES

AMFI Kenya. (2012). *List of Micro finance Institutions in Kenya,* Nairobi. Retrieved from:www.amfikenya.com/list of Members.

AMFI Kenya. (2012*). Microfinance Sector Report*. Nairobi, Kenya. Microfinanza rating.

Barth, J., Nolle, D., Thumiwasana T., &Tago G. (2003). A Cross-Country Analysis of the Bank Supervisory Framework and Bank Performance. *Financial Markets, Institutions and Instruments*, 12(2) 68-120.

Bauchet J, Murdoch J. (2010). Selective Knowledge: Reporting Biases in Microfinance data. *Perspectives on Global Development and Technology*, 9 3: 240-69

Banerjee A, and Andrew N. (1994). Poverty, incentives, and development. *American Economic Review Papers and Proceedings* 84(2) (May): 211–215.

Banerjee A., Esther D., Rachel G. and Chythia K. (2009). The Miracle of microfinance. Evidence from a randomized evaluation. *Working Paper*. Retrieved from: http://econ-www.mit.edu/files/4162.

Besley T, and Coate S. (1995). Group Lending, Repayment Incentives and Social Collateral. *Journal of Development Economics* 46: 1-18

Basel committee on banking supervision. (2010*). Microfinance activities and the Core Principles for Effective Banking Supervision.* Switzerland, Bank for International Settlements Communications

Calvin B. and Coetzee G. (2010).*A review of the South African Microfinance sector, Center for Microfinance* Success. Pretoria. D.C. University of Pretoria and Fin Mark Trust,

CGAP. (1996). *Regulation & Supervision of Micro-finance Institutions*: Stabilizing a New Financial Market. Note No. 4. August 1996. Washington, DC: The World Bank.

CGAP. (1998). *External Audits of Microfinance Institutions:* A Handbook. 1998.

Technical Tool Series 3. New York: Pact Publications

CGAP (2002). *Guiding Principles on Regulation and Supervision of Microfinance* Washington.

Chen G. and Sebstad, J. (1996). *Overview of Studies on the Impact of Microenterprise Credit.* Washington, MSI/AIMS

Collins D., Murdoch J., Rutherford S. and Ruthven O. (2009). *Portfolios of the Poor: How the World's Poor live on $2 a Day*. Princeton and Oxford: Princeton University Press.

Copestake J. (2006). Mainstreaming Microfinance: Social Performance Management or Mission Drift? *Working Paper. Department of Economics and International Development,* University of Bath

Christen R.., Lyman T. and Rosenberg R. (2003).*Microfinance consensus guidelines: Guiding principles on regulation and supervision of Microfinance*. Washington. DC; CGAP.

Christen R. and Rosenberg R. (2000). *The rush to regulate: legal frameworks for Microfinance institutions,* Occasional Paper, Washington D.C; CGAP.

De Mel S., McKenzie D. and Woodruff C. (2008). Returns to Capital in Micro enterprises: Evidence from a Field Experiment. *Quarterly Journal of Economics* 123: 132972

FSD Kenya. (2012). *Finaccess: The transformation of Microfinance institutions to Deposit Taking*, Nairobi. FSD

Gertler P., Levine D. and Moretti E.(2003). Do Microfinance Programs help families insure Consumption against Illness? *CIDER Working Paper C03-129*

Ghatak and Maitreesh. (1999). Group Lending, Local Information and Peer Selection. *Journal of Development Economics, forthcoming.*

Gibson, Albert B., (2012). *Determinants of operational sustainability of Microfinance Institutions in Kenya*. Retrieved from: http://erepository.uonbi.ac.ke:8080/xmlui/

handle/123456789/10719

Hartarska V. (2005).*Governance and Performance of Microfinance Institutions in Central and Eastern Europe and the Newly Independent States.* Copenhagen, Denmark

Hartarska V. & Nadolnyak, D. (2007). Do regulated Microfinance institutions achieve better Sustainability and outreach? Cross-country evidence. *Journal of applied Economics,* 39, 1207–1222.

Hermes N., Lensink, R. and Mehrteab, H. (2005).Peer Monitoring, Social Ties and Moral Hazard in Group Lending Programs: Evidence from Eritrea. *World Development Journal* 33(1), 149-169.

IISD. (2012).*The regulation and Supervision of Microfinance: Main Issues and Progress.* Maitba, Canada:IISD

Jansson T. and Wenner M. (1997).*Financial Regulation and its Significance for Microfinance in Latin America and the Caribbean.* Washington, DC: Inter-American Development Bank.

K`Aol G. (2003). *Factors influencing the establishment of Microfinance schemes in Kenya.* Retrieved from:saber.ur.edu/research/icsb/2003/176.doc

Karlan D, and Valdivia M. (2010).Teaching Entrepreneurship: Impact of Business Training On Microfinance Clients and Institutions. *The Review of Economic Statistics*

Kottler, p, and Armstrong, G. (2000).*Principles of marketing, ninth Edition*, Upper saddle River, New Jersey 07458. Pearson Education, Prentice Hall

Laura B, Natalya E, and Tatiana K. *(*1998).Lending Methodology Module. *The Russia Microfinance Project.* Document No.53

Mersland, R., & Strom, O. R. (2009).Performance and governance in Microfinance Institutions. *Journal of Banking & Finance*, 33, 662–669.University of Maryland.

Ministry of Finance Strategic Plan, (2009-2012). *Vision 2030*: *The economic Pillar*, Nairobi; Government Printer

Morduch, J. (1995). Income Smoothing and Consumption Smoothing. *Journal of Economics Perspective.* 9:3, pp. 103–14.

Morduch, J. (1999). The Promise of Microfinance. *Journal of Economic Literature,* Vol. 37, pp.1569–1614

Morduch, J. (2005). The Microfinance Schism. *World Development* 28:617.Olivares-Polanco, Francisco. 2005. "Commercializing Microfinance and Deepening Outreach? Empirical Evidence from Latin America. *Journal of Microfinance* 2005:47-69

Mugenda O. and Mugenda G. (1999). *Research Methods; Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

OKumu J. L. (2007).*The Microfinance Industry in Uganda*: Sustainability outreach and Regulation. Cape Town South Africa. University of Stellenbosch

Omino G. (2005). *Regulation and Supervision of Microfinance Institutions in Kenya*; March. Nairobi, Kenya.

Nyamsogoro G. D. (2010). *Financial sustainability of rural Microfinance Institutions (MFIs) in Tanzania.* (PhD thesis, University of Greenwich).

Republic of Kenya, (2006). *Microfinance Act*, Nairobi, government printer.

Rhyne E. (2002). The experience of Microfinance institutions with regulation and supervision, Paper presented at the International Forum of Microenterprises. Rio de Janeiro, IADB, September 2002.

Robert C., Asli D. and Jonathan M. (2009). *Microfinance Tradeoffs: Regulation, Competition, and Financing, Policy Research Working Paper 5086* Retrieved from http://econ.worldbank.org.

Robinson, M. (200)5. *The Microfinance Revolution*. Washington D.C.: The World Bank, Open Society Institute.

Rosenberg R. (1999). Measuring microcredit delinquency: Ratios can be harmful to your health. *CGAP Occasional Paper* No. 3, June. Available at: www.cgap.org/

docs/OccasionalPaper_03.pdf

Seibel and Hans D. (October 2005), "*Does history matter? The old and new World of Microfinance in Europe and Asia"*, Paper presented at: From Moneylenders to Microfinance: Southeast Asia's credit revolution in institutional, economic and cultural perspective, An interdisciplinary workshop, Asia Research Institute, Department of Economics and Department of Sociology, National University of Singapore

Shankar S. (2007). Transaction Costs in Group Microcredit in India. *Management Decision Journal*, 45(8), 1331-1342.

Stiglitz J. (1974). Incentives and Risk Sharing in Sharecropping. *Review of Economic Studies* 41:397-426.

Stiglitz J., (1990). Peer Monitoring and Credit Markets. *World Bank Economic Review* 4: 351-66

Stiglitz, J., (1990). Peer monitoring and credit markets. *World Bank Economic Review* 4(3): 351–366.

Wenner, M. D., (1995). Group Credit: A Means to Improve Information Transfer and Loan Repayment Performance, Journal of Development 32, 264-81

Wydick B, and Mcintosh C. (2004). Competition and Microfinance. *Journal of Development Economics*

Zeller M., Meike W., and Ahmed A.S. (2003). *Do Microfinance and social Safety net programs reach the poor? Empirical evidence from Mexico and Indonesia*. Retrieved from: http://www.unihohenheim.de/symposium2002/paabstracts1/ Abs-Pap-S1-2_Zeller.pdf.

APPENDIX 1: LIST OF ALL DTMS AND CREDIT ONLY MFIS

DEPOSIT TAKING MICROFINANCEINSTITUTIONS			
1.	Kenya Women Finance Trust-DTM	Mwangi Githaiga - MD 2715334/5 Isabella Nyambura	Upperhill, Kiambere Road P.O BOX 4179-00506 NAIROBI. Tel : 2715333/2470272/2470273/2470274/2470275 mgithaiga@kwftdtm.com; lnyambura@kwftdtm.com
2.	Rafiki Deposit Taking MicrofinanceLtd	Daniel Mavindu-CEO Contact Person George Mbira	Elroy Plaza, Tom Mboya Street, P.O. Box 66049 00800 Nairobi Tel:2774000/4454803/4/6/8 Cell: 0736 432025/0722 206917 gmbira@rafiki.co.ke; dmavindu@rafiki.co.ke;
3.	Faulu Kenya DTM	John Mwara - CEO	Ngong Road, Ngong lane P.O BOX 60240-00200 NAIROBI Tel: 3877290/3872184/4 Fax:3867504/3874857 JohnM@faulukenya.com
4.	SMEP DTM	Phyllis Mbungu- CEO Catherine Inoti	Kirichwa Road, Kilimani P.O BOX 64063 NAIROBI Tel:3870162/3861927 Fax:3870191 info@smep.co.ke ceo@smep.co.ke
5	Remu DTM Ltd	Lydia Kibaara – General Manager	Finance House, 14th Floor, Loita street P.O. Box 20833-00100 Nairobi Tel : 020-2214483/2215387/8/9 Cell : 0716 605453 lydia.kibaara@remultd.co.ke
6	Uwezo DTM Ltd	Michael Gichohi –Executive Director Contact person – Isabel Mwangi	Park Plaza, Ground Floor, Moktah Daddah Street P.O. Box 1654-00100 GPO Nairobi Tel : 2212917/9 Cell : 0720 350800 E-mail : mdgichohi@uwezodtm.com; imwangi@uwezodtm.com
7	Century DTM Ltd	Pauline W. Githungu - CEO	New Pumwani Road K K Plaza, Gikomba Cell : 0770230570-Head Office OR 0722168721 ; 0733155652 Tel : 3741450 Email : info@century.co.ke pgithugu@century.co.ke

8	Sumac Credit DTM Ltd	Duncan Mwaniki CEO	Consolidating Bank Building, Koinange Street, 2nd Floor P.O. Box 11687-00100 Nairobi Tel: 020 2210440/2212587 Fax: 020 2210430 Cell Phone: 0725 223 499 E-mail: info@sumacredit.co.ke duncanmwaniki@sumacredit.co.ke
9	U&I Microfinance Ltd	Moses Muiruri-Director	1st Floor, Asili Complex River Road/Latema Road Junction Opposite Kampala Coach Tel: 020 2367388 Cell: 0713 -112791 E-mail: info@uni-Microfinance.co.ke mmuiruri@uni-Microfinance.co.ke
	CREDIT ONLY RETAIL MFIs		
10	Blue Limited	Phillip Muturi Mwangi CEO	Chester House-Koinange Street P.O BOX 27749-00100 NAIROBI Tel: 3599489/0717111792 Fax : 24405493 reception@blueltd.co.ke phillipm@blueltd.co.ke
11	K-rep Development Agency	Dora Waruiru – Acting MD	K-Rep Development Agency Ltd K-Rep Centre| 7th Flr. Wood Av. Kilimani P.O. Box Box 10528 – 00100, Nairobi. +254 39 06 787 +254 711 058 787 +254 732 158 787 dwaruiru@k-rep.co.ke
12	Eclof Kenya	Mary Munyiri - CEO	Chiromo, Royal Offices, Mogotio Road P.O BOX 34889 NAIROBI Tel: 254-020-4453947,4453948 Cell: 0721344699 Fax: 254-020-4454006 Email: info@eclof-kenya.org admin@eclof-kenya.org mmunyiri@eclof-kenya.org
13	KADET	Peter Mugendi-CEO	Capital Hill, Cathedral Road Community P.O BOX 1676-00200 NAIROBI Tel: 2731954/87 Fax: 2731955 peter_mugendi@wvi.org peter.mugendi@kadet.co.ke
14	BIMAS	Patrick Gathondu-CEO	Bimas Complex P.O BOX 2299 EMBU Tel: 068-31645 Fax: 068-31573 pgathondu@bimaskenya.com
15	SISDO	Simon Maina- CEO	Ngong Road, Ngong lane P.O BOX 76622-00508 NAIROBI Tel : 3870280

			Fax: 3871531 simon.maina@sisdo.org
16	Micro Africa Ltd	James Mugambi – Executive Director Micro Africa Ltd Charles Njoroge – CEO Microkenya	P.O BOX 52926 NAIROBI Tel: 2727373/ Fax: 2721745 jmugambi@microkenya.co.ke/ cnjoroge@microkenya.co.ke
17	Opportunity Kenya	Lydia Njoroge-CEO Contact person: Geoffrey Thige-COO	Geomaps Centre-Matumbata rd Upper Hill P.O BOX 19497-00202 Nairobi Tel: 2720159/69 Fax: 2720173 0722205171/0733606996 lnjoroge@opportunitykenya.com jthige@opportunitykenya.com
18	Yehu Microfinance Trust	Adet N. Kachi-CEO	Buxton, Tom Mboya Street P.O BOX 82120 NAIROBI Tel: 041-224406 adetkachi@yahoo.com yehumfi@gmail.com
19	Fusion Capital Ltd	Luke Kinoti-CEO PA- Ruth Macharia	ACK Garden house, Wing A, Ground Floor, 1st Ngong Avenue, Community next to ardhi house. Tel: 2710149/53/55 Cell: 0727287994/0733918776 Email: info@fusioncapital.co.ke lukekinoti@fusioncapital.co.ke ruthmacharia@fusioncapital.co.ke
20	Canyon Rural Credit Ltd	Contact person: Isaac Nteere	Studio Hse,3rd floor P.O. box 46532-00100 Nairobi. Tel: 2043407/2725024/2711475 canyonruralcredit@yahoo.com; info@canyonruralcredit.com
21	One Africa Capital Ltd	Michael Karanja	Koinange Street-Ratansi Educational Trust Building, 2nd Floor P.O. Box 74093-00200 Cell: 0726376293 Fax: 020- 2210260 oneafrica.microfin@yahoo.co.uk
22	Jitegemea Credit Scheme	Francis Kihiko - CEO	Jogoo Road, KCB building P.O BOX 46514, NAIROBI Tel: 535866/552169 jitegemea@wananchi.com
23	AAR Credit Services	John Kariuki – MD Margaret Njoroge – Finance Director	Methodist Ministries Centre, 1st Floor Oloitokitok Road P.O BOX 41766 GPO Tel: 0722425040; 0736425040 Email: jkkariuki@aar.co.ke
24	Agakhan Foundation Microcredit Programme	To be confirmed	Mpaka plaza, Westlands 3rd floor P.O BOX 13149-00100, NAIROBI Tel: 4451349/6/8 Fax: 4451349
25	ADOK TIMO	George Jura	Sifa House, Ground Floor, Mission Rd. Off Kakamega Rd. Opposite Kibuye Market. KISUMU. Tel: 057 2025570

			P.O. Box 3650-40100
26	Pamoja Women Development Programme	Julius Chege Muiruri CEO Contact person: Jackson Wangombe – General Manager	Kikinga House, Kiambu Town P.O. Box 2472 – 00100 Nairobi. Tel: 066 – 22205 Fax: 055 22455 Mobile: 0721 756567/ 0721 526436 E-mail: info@pawdep.org/ jack@pawdep.org
27	Juhudi Kilimo Co.Ltd	Nat Robinson - CEO	Mucai Road, Ngong Road P.O. Box 10528-00100 Nairobi Tel : 3906000 E-mail : nat@juhudikilimo.com
28	Musoni Kenya Ltd	David James - CEO Contact person – Anne Mwasi	Cape Office Park Along Ring Road Kilimani, Opposite Yaya Centre P.O. Box 25351-00100 Nairobi. Tel: 020 260935 e-mail: davidjames@musoni.eu annemwasi@musoni.eu
29	Molyn Credit Ltd	Lydia N. Anyangu - CEO	Bruce House 9th Floor Standard Street P.O. Box 10144-00100 Nairobi Tel : 310726 Email : info@molyn.co.ke / lnanyangu@molyn.co.ke
30	Renewable Energy Technology Assistance Programme(RETAP)	Charles Gitundu - CEO	Waumini Hse, Westlands 1st Floor P.O. Box 28201-00200 Nairobi Tel : 4454306/2033867/3002344 E-mail : info@retap-africa.org/ gitundu@retap-africa.org
31	Rupia Ltd	Mildred Wafula	View Park Towers, 10th Floor P.O. Box 2987-00200 Nairobi Tel : 2251389 Email : info@rupialtd.com
32	Taifa Options Microfinance	Francis Macharia Mwangi - CEO Contact Person – Rawlings Thuo	Finance House, Kenyatta Highway P.O. Box 727, Ruiru Tel : 067-5855169/0725-315978/0724-705854 E-mail : taifaoption@yahoo.com rawlingsthuo@yahoo.com
33	Women Enterprise Solutions	Juster Waweru – CEO/MD	Development House, Moi Avenue P.O. Box 4083-00200 Nairobi. info@wesokenya.com Tel: 020 2217508 Cell: 0723 714498
34	Select Management Services Ltd	Paul Kihiu - CEO	Kenya Re towers, off Ragati Road P.O. Box 27639,00506 Nairobi. Tel: 2777500/1 Fax: 2731162 Kihiup@selectafrica.net

35	Greenland Fedha Ltd	Anne Gathuku-MFI manager	KTDA, KTDA farmers building P.O. Box 30213-00100 Nairobi. Tel: 32277000-2/221441-4 Fax:211240 agathuku@ktdateas.com agathuku@yahoo.com
36	Youth Initiatives – Kenya (YIKE)	Benedict Kariuki-coordinator Youth Desk	Kariobangi North, Sanoda Hse, 2nd Flr P.O. Box 50622-00200, City Square, Nairobi Tel : 020 2303065 Cell : 0725 362382 Email : benedict@yike.org
37	Platinum Credit Limited	Ignatius Obara Finance Director	2nd floor, union towers, moi avenue P.O. Box 73304-00200 Nairobi Tel: 2247950/2210109/2210105 Mobile: 0722200480/0733836845 info@platinumcredit.co.ke
38	Ngao Credit Ltd	John Mwenja Ngumba – CEO Evelyn Murungi – Operations Manager	2nd Floor NHIF Bldg. Community P.O. Box 60776-00200 Nairobi Tel: 2720196/7 Cell: 0723283947 Email: info@ngaocredit.com evelyn@ngaocredit.com
39	Indo Africa Finance	Leon .M .Ndubai – CEO Maya Mitrovic – Managing Director	Museum Hill Centre 3rd Floor, Museum Hill Road P.O. Box 39435-00623 Nairobi – Kenya Tel: 020-2692965/6 Cell: 0733 – 200030 OR 0717-399181 Email: info@indoafricafinance.co.ke
40	Springboard Capital	Wilson K. Karanja - CEO	Kensia House along Muranga road, Opposite Kobil Petrol Station 1st Floor, suite no.12 P.O. Box 23720-00100, Nairobi. Tel: 020 2319430 Cell: 0722818921 Email: wilsonkaranja@springboardcapital.co.ke
41	Mini Savings & Loans Ltd	Jeremiah M. Mwaura - Manager	Highway Building, Githunguri Town (Near Githunguri Post Office) P.O. Box 874-00216, Githunguri, Kiambu Tel: 020 2013292 Cell: 0721953290 Email: minisaving@yahoo.com
42	KEEF-Kenya Entrepreneurship Empowerment Foundation	Daniel K. Kariuki- CEO	Mapa House 3rd Floor Kiambu Road P.O. Box 648 Kiambu Tel: 020 3535617/ 020 2046423 Cell: 0722 440419 Email: daniel@keefkenya.org
43	Focus Capital Limited	George Ngugi Karungo - Director	Donholm Mina Centre P.O. Box 2406-00202 Nairobi. aligeproperty@rocketmail.com Tel: 0705-693555
44	Samchi Credit Limited	Kevin Mutiso – Executive Director Contact person: Peter Okatch	Parklands Plaza P.O. Box 16982-00620 Nairobi. Tel: 020521178 / 0708 777770 Email: peter.okatch@samchicredit.co.ke info@samchicredit.co.ke

45	Fountain Credit Services Ltd	Stephen Ndirangu – General Manager	Ngong Road , near Kobil Petrol Station P.O. Box 72367-00200 Nairobi. Tel: 020 2501812 Cell: 0715-530042; 077-0230613 sndirangu@fep-group.com
46	Milango Financial Services	Johnstone Githedu-General Manager	Rozina Building, Moi Avenue street P.O. Box 99637-80107, Mombasa Email: info@milangokenya.co.ke
47	Nationwide Credit Kenya Ltd	Mathara Mwangi-General MANAGER	Trishul Towers, 1st Floor Near Globe Roundabout Next to Paramount Plaza P.O. Box 41873-00100 Nairobi. Email: nationwidekenya@yahoo.com
48	Fort Credit Limited	Simon Kimani Komu-CEO	Equity Plaza (Thika) 2nd Floor P.O. Box 6685-001000 Thika Email: info@fortcredit.org

APPENDIX 11: CAPITAL ADEQUACY REQUIREMENT

	INSITUTION	EQUITY			AVERAGE EQUITY	RISK WEIGHTED ASSETS			AVERAGE WEIGHTED RISK	CAR
		2012	2011	2010		2012	2011	2010		
1	AAR Credit Services	24,942,927	24,575,637	23,745,249	**36,631,907**	22,549,935	22,066,251	16,898,880	**30,757,533**	**1.19**
2	ADOK TIMO									
3	BIMAS	195,143,439	172,469,412	168,615,586	**178,742,812**	149,026,330	108,899,958	120,263,267	**126,063,185**	**1.42**
4	Blue Limited									
5	Century DTM Ltd	74,323,069	85,924,191	90,623,819	**125,435,540**	27,574,209	53,028,804	39,499,440	**60,051,227**	**2.09**
6	Eclof Kenya	175,119,479	204,849,048	170,741,881	**183,570,136**	16,379,685	27,159,053	189,729,273	**77,756,004**	**2.36**
7	Faulu Kenya DTM	614,600,000	556,306,000	874,854,000	**681,920,000**	4,568,426,000	3,086,867,000	2,328,149,000	**3,327,814,000**	**0.20**
8	Greenland Fedha Ltd	1,084,128,914	166,834,000	160,155,000	**470,372,638**				**-**	
9	Jitegemea Credit Scheme	58,987,876	39,643,822	30,114,030	**42,915,243**	2,629,681	951,849	-	**1,193,843**	**35.95**
10	Juhudi Kilimo Co.Ltd	4,008,054	5,382,724	22,738,469	**16,064,624**				**-**	
11	KADET	153,699,000	154,132,000	219,522,000	**175,784,333**	144,406	226,182,000	151,322,000	**125,882,802**	**1.40**
12	KEEF-Kenya Entrepreneurship Empowerment Foundation	71,710,955	55,322,707	50,802,398	**59,278,687**				**-**	
13	Kenya Women Finance Trust-DTM	2,133,080,000	1,826,960,000	2,022,311,000	**2,991,175,500**	16,013,091	13,741,747	13,706,383,000	**6,868,068,919**	**0.44**

14	Micro Africa Ltd	654,130,000	343,682,000	356,147,000	**451,319,667**			47,362,000	**15,787,333**	**28.59**
15	Milango Financial Services	-	28,494,549	26,999,889	**27,747,219**				**-**	
16	Molyn Credit Ltd	90,107,586	75,086,498	21,301,131	**62,165,072**				**-**	
17	Musoni Kenya Ltd	266,302,874	56,980,658	(7,509,062)	**105,258,157**				**-**	
18	Opportunity Kenya	117,972,000	129,172,000		**123,572,000**				**-**	
19	Pamoja Women Development Programme	64,535,660	63,542,816	100,957,718	**76,345,398**				**-**	
20	Platinum Credit Limited	492,437,116	340,046,707	-	**416,241,912**				**-**	
21	Rafiki Deposit Taking MicrofinanceLtd	139,631,000	134,638,000	-	**137,134,500**	962,428,000	221,701,000		**592,064,500**	**0.23**
22	Remu DTM Ltd	102,828	99,565	-	**101,197**	126,338	70,622		**98,480**	**1.03**
23	SISDO	158,946,258	145,751,212	145,751,212	**150,149,561**	148,327,638	104,008,550	102,791,490	**118,375,893**	**1.27**
24	SMEP DTM	602,756,000	23,967,000	230,780,972	**428,751,986**	1,114,879,000	886,093,000	1,479,764,178	**1,740,368,089**	**0.25**
25	Springboard Capital	34,189,468	22,987,255		**28,588,362**				**-**	
26	Sumac Credit DTM Ltd	795,994,554	99,425,708	74,764,500	**323,394,921**				**-**	
27	Taifa Options Microfinance	67,213,450	27,443,630	-	**47,328,540**				**-**	
28	Women Enterprise Solutions	-	1,970,424,709	1,658,214,756	**1,814,319,733**	-	650,944,385	539,536,921	**595,240,653**	**3.05**
29	Yehu Microfinance Trust	106,957,405	89,311,091		**98,134,248**	50,253,266	43,986,365		**47,119,816**	**2.08**
30	Youth Initiatives – Kenya (YIKE)	8,108,064	5,789,812		**6,948,938**	-	-	-	**-**	

APPENDIX 111: LIQUIDITY REQUIREMENT

	INSTITUTION	CURRENT ASSETS			AVERAGE CURRENT ASSETS	CURRENT LIABILITIES			AVERAGE CURRENT LIABILITIES	LIQUIDITY(CURRENT ASSETS/CURRENT LIABILITIES
		2012	2011	2010		2012	2011	2010		
1	AAR Credit Services	594,445,121	508,302,521	284,283,468	693,515,555	145,541,566	115,689,542	236,450,602	248,840,855	**2.79**
2	ADOK TIMO									
3	BIMAS	565,425,141	496,249,122	400,405,822	487,360,028	58,131,372	58,013,185	178,945,220	98,363,259	**4.95**
4	Blue Limited									
5	Century DTM Ltd	62,653,178	74,919,602	91,015,898	114,294,339	19,267,921	2,840,989	1,318,855	11,713,883	**9.76**
6	Eclof Kenya	711,826,661	654,987,401	579,977,647	648,930,570	468,507,327	361,325,169	391,109,975	406,980,824	**1.59**
7	Faulu Kenya DTM	5,710,887,000	3,750,410,000	4,377,530,000	4,612,942,333	5,440,842,000	3,768,006,000	2,336,655,000	3,848,501,000	**1.20**
8	Greenland Fedha Ltd	-	531,777,000	233,536,000	382,656,500	-	367,708,000	75,370,000	221,539,000	**1.73**
9	Jitegemea Credit Scheme	513,518,575	459,683,709	207,555,862	393,586,049	253,471,593	208,984,494	41,487,491	167,981,193	**2.34**
10	Juhudi Kilimo Co.Ltd	441,611,460	242,049,027	24,374,457	354,017,472	172,360,680	104,038,865	75,866,557	176,133,051	**2.01**
11	KADET	718,654,000	702,731,000	659,666,000	693,683,667	294,247	100,472	586,102,000	195,498,906	**3.55**
12	KEEF-Kenya Entrepreneurship Empowerment Foundation	79,901,163	41,570,590	43,541,824	55,004,526	282,918	284,568	120,000	229,162	**240.02**

13	Kenya Women Finance Trust-DTM	18,011,984,000	11,375,929,000	17,829,914,000	23,608,913,500	12,870,720	9,911,897	13,443,655,000	6,733,218,809	**3.51**
14	Micro Africa Ltd	1,999,681,000	1,381,720,000	735,065,000	1,372,155,333	1,015,905,000	674,736,000	336,481,000	675,707,333	**2.03**
15	Milango Financial Services	-	124,714,932	74,678,040	99,696,486	-	80,336,529	25,175,985	52,756,257	**1.89**
16	Molyn Credit Ltd	184,810,019	132,260,565	67,469,285	128,179,956	90,927,975	70,884,025	60,427,874	74,079,958	**1.73**
17	Musoni Kenya Ltd	172,115,954	89,107,894	70,966,639	110,730,162	227,390,955	103,430,156	78,475,661	136,432,257	**0.81**
18	Opportunity Kenya	710,446,000	596,407,000		653,426,500	22,768,000	21,169,000		21,968,500	**29.74**
19	Pamoja Women Development Programme	702,133,699	670,842,634	707,846,733	693,607,689	173,597,369	150,912,972	32,821,381	119,110,574	**5.82**
20	Platinum Credit Limited	475,760,667	217,575,432		346,668,050	892,598,604	713,076,453		802,837,529	**0.43**
21	Rafiki Deposit Taking MicrofinanceLtd	1,587,274,000	357,997,000		972,635,500	1,234,386,000	201,991,000		718,188,500	**1.35**
22	Remu DTM Ltd	169,279,000	112,831,000	94,158,728	125,422,909	78,864,000	24,775,000	7,879,847	37,172,949	**3.37**
23	SISDO	466,827,229	405,784,288	353,111,116	408,574,211	325,978,520	276,184,416	237,454,379	279,872,438	**1.46**
24	SMEP DTM	1,760,456,000	1,578,184,000	1,157,093,455	2,247,866,728	1,210,684,000	1,027,798,000	890,421,487	1,564,451,744	**1.44**
25	Springboard Capital	56,456,212	29,378,429		42,917,320	22,664,896	6,670,734		14,667,815	**2.93**
26	Sumac Credit DTM Ltd	158,379,928	122,002,123	108,043,895	129,475,315	1,233,348,896	7,058,531	4,027,928	414,811,785	**0.31**
27	Taifa Options Microfinance	33,479,052	25,149,828		29,314,440	41,790,463	8,740,459		25,265,461	**1.16**
28	Women Enterprise Solutions		1,942,810,747	1,655,384,998	1,799,097,873		10,052,528	3,167,259	6,609,894	**272.18**
29	Yehu Microfinance Trust	172,660,501	123,523,894		148,092,198	474,150	899,024		686,587	**215.69**
30	Youth Initiatives – Kenya (YIKE)	7,088,209	4,506,021		5,797,115	656,192	377,198		516,695	**11.22**

APPENDIX IV: LOAN PROVISIONING REQUIREMENT

	INSTITUTION	OUTSTANDING LOAN PORTFOLIO			AVERAGE OUTSTANDING LOAN	PORTFOLIO IN ARREARS			AVERAGE PORTFOLIO IN ARREARS	PAR(PORTFOLIO IN ARREARS/AVERAGE OUTSTAND LOAN
		2,012	2,011	2,010		2,012	2,011	2,010		
1	AAR Credit Services	682,230,236	497,427,869	245,538,456	**712,598,281**	27,240,327	11,015,374	8,313,001	**23,284,351**	**0.03**
2	ADOK TIMO								-	
3	BIMAS	397,880,258	400,697,367	258,414,259	**352,330,628**	30,069,603	27,588,171	22,812,283	**40,235,029**	**0.11**
4	Blue Limited								-	
5	Century DTM Ltd	26,015,470	1,482,982	155,000	**26,015,470**	3,162,293	24,490	1,550	**1,594,166**	**0.06**
6	Eclof Kenya	448,270,410	376,043,996	330,187,323	**384,833,910**	39,695,200	37,495,425	23,499,540	**50,345,083**	**0.13**
7	Faulu Kenya DTM	5,052,440,000	3,308,513,000	2,677,259,000	**3,679,404,000**	103,242,000	70,889,000	128,107,000	**151,119,000**	**0.04**
8	Greenland Fedha Ltd	227,718,000	530,713,000	232,365,000	**330,265,333**	8,711,000	4,647,000	11,461,286	**12,409,643**	**0.04**
9	Jitegemea Credit Scheme	389,099,244	400,603,560	206,302,588	**332,001,797**	12,021,753	8,357,709	8,925,217	**14,652,340**	**0.04**
10	Juhudi Kilimo Co.Ltd	352,867,244	162,930,227	111,897,370	**313,847,421**	7,106,916	1,626,076	4,145,419	**6,439,206**	**0.02**
11	KADET	427,849,000	375,558,000	511,089,000	**438,165,333**	6,403,000	16,374,000	34,660,000	**28,718,500**	**0.07**

12	KEEF-Kenya Entrepreneurship Empowerment Foundation	72,542,875	28,569,235	33,826,820	**44,979,643**	-	-	-	-	-
13	Kenya Women Finance Trust-DTM	13,168,917,132	11,456,622,989	12,277,392,492	**12,300,977,538**	295,701,000	256,935,000	649,985,000	**601,310,500**	**0.05**
14	Micro Africa Ltd	1,718,675,000	1,113,597,000	553,607,000	**1,128,626,333**	72,436,000	31,430,000	26,818,000	**65,342,000**	**0.06**
15	Milango Financial Services		121,800,277	55,420,611	**88,610,444**		318,349	554,206	**436,278**	**0.00**
16	Molyn Credit Ltd	169,248,242	129,534,823	72,289,925	**123,690,997**	4,905,664	3,876,433	2,653,675	**5,717,886**	**0.05**
17	Musoni Kenya Ltd	161,374,205	78,978,690	73,106,291	**104,486,395**	3,261,780	3,043,215	10,743,729	**8,524,362**	**0.08**
18	Opportunity Kenya	407,892,000	396,271,000	-	**402,081,500**	31,876,000	17,627,000		**24,751,500**	**0.06**
19	Pamoja Women Development Programme	696,940,001	663,428,118	695,008,328	**685,125,482**	17,423,500	16,585,703	17,375,208	**25,692,206**	**0.04**
20	Platinum Credit Limited	1,482,738,839	1,155,304,905		**1,319,021,872**	89,929,157	58,822,263		**74,375,710**	**0.06**
21	Rafiki Deposit Taking MicrofinanceLtd	520,195,000	105,564,000	-	**312,879,500**	12,158,000	-		**6,079,000**	**0.02**
22	Remu DTM Ltd	88,855,000	46,577,036	16,823,715	**76,127,876**	2,975,000	1,598,932	-	**2,286,966**	**0.03**
23	SISDO	294,950,358	240,212,341	240,212,341	**258,458,347**	20,738,812	25,051,046	22,032,593	**33,911,225**	**0.13**
24	SMEP DTM	1,573,161,000	1,532,088,000	1,260,196,000	**2,182,722,500**	279,444,000	49,304,000	78,314,472	**203,531,236**	**0.09**
25	Springboard Capital	54,903,033	25,660,507		**40,281,770**	500,000	-		**500,000**	**0.01**
26	Sumac Credit DTM Ltd	103,279,989	103,205,831	70,662,451	**92,382,757**	1,299,600	1,083,000	1,647,000	**2,014,800**	**0.02**
27	Taifa Options Microfinance	31,914,718	26,232,922		**29,073,820**	-	-		-	-
28	Women Enterprise Solutions		931,590,000	943,652,569	**937,621,285**	-	-	-	-	-
29	Yehu Microfinance Trust	269,361,082	206,218,430	-	**237,789,756**	8,503,050	3,986,078		**6,244,564**	**0.03**
30	Youth Initiatives – Kenya (YIKE)				-				-	

APPENDIX V: FINANCIAL SUSTAINABILITY

	INSTITUTION	OPERATIONAL INCOME			AVERAGE OPERATING INCOME	OPERATING EXPENSES			AVERAGE OPERATING EXPENSES	OSS=OPEARITING INCOME /OPERATING EXPENSES
		2,012	2,011	2,010		2012	2011	2,010		
1	AAR Credit Services	207,610,858	125,378,941	88,891,907	140,627,235	93,744,109	74,569,422	59,270,401	75,861,311	1.85
2	ADOK TIMO									
3	BIMAS	176,263,372	128,536,262	77,806,442	127,535,359	91,333,482	79,430,041	69,606,608	80,123,377	1.59
4	Blue Limited									
5	Century DTM Ltd	13,631,490	2,771,253	84,745	5,495,829	35,532,656	20,274,219	2,097,376	19,301,417	0.28
6	Eclof Kenya	130,816,610	121,218,405	95,861,668	115,965,561	127,180,874	106,811,656	87,174,274	107,055,601	1.08
7	Faulu Kenya DTM	1,233,565,000	1,025,918,000	984,675,000	1,081,386,000	979,391,000	983,939,000	1,090,055	654,806,685	1.65
8	Greenland Fedha Ltd	-	91,349,000	38,718,000	65,033,500		65,819,000	33,386,000	49,602,500	1.31
9	Jitegemea Credit Scheme	158,917,312	105,701,026	53,882,607	106,166,982	29,002,822	14,414,375	51,476,563	31,631,253	3.36
10	Juhudi Kilimo Co.Ltd	79,356,000	42,620,291	32,728,242	51,568,178	77,026,878	29,962,453	47,000,768	51,330,033	1.00
11	KADET	162,140,000	144,341,000	164,026,000	156,835,667	226,642,000	206,778,000	212,062,000	215,160,667	0.73
12	KEEF-Kenya Entrepreneurship Empowerment Foundation	35,611,291	28,611,291	19,994,331	28,072,304	19,223,043	17,060,529	14,227,660	16,837,077	1.67
13	Kenya Women Finance Trust-DTM	4,317,265,000	3,613,555,000	3,004,729,960	3,645,183,320	3,717,697,000	2,940,329,000	2,588,808,000	3,082,278,000	1.18
14	Micro Africa Ltd	654,130,000	343,682,000	255,832,000	417,881,333	695,532,000	380,923,000	226,570,000	434,341,667	0.96

15	Milango Financial Services	-	30,036,618	7,556,671	**18,796,645**		8,253,968	2,891,018	**5,572,493**	**3.37**
16	Molyn Credit Ltd	62,113,021	53,142,592	20,570,777	**45,275,463**	47,158,884	39,112,580	20,683,858	**35,651,774**	**1.27**
17	Musoni Kenya Ltd	59,205,184	30,298,383	10,092,992	**33,198,853**	100,158,043	37,111,623	17,602,054	**51,623,907**	**0.64**
18	Opportunity Kenya	166,182,000	117,279,000		**141,730,500**	155,409,000	11,913,000		**83,661,000**	**1.69**
19	Pamoja Women Development Programme	112,691,667	139,674,756	151,894,757	**134,753,727**	133,796,440	136,082,560	131,307,247	**133,728,749**	**1.01**
20	Platinum Credit Limited	719,281,424	564,442,010		**641,861,717**	246,523,691	200,767,321		**223,645,506**	**2.87**
21	Rafiki Deposit Taking MicrofinanceLtd	180,694,000	14,464,000		**97,579,000**	142,369,000	40,461,000		**91,415,000**	**1.07**
22	Remu DTM Ltd				**-**				**-**	
23	SISDO	114,740,905	87,502,790	80,583,272	**94,275,656**	69,855,994	64,052,485	65,776,891	**66,561,790**	**1.42**
24	SMEP DTM	505,306,000	379,589,000	-	**442,447,500**	507,064,000	413,418,000		**460,241,000**	**0.96**
25	Springboard Capital	18,978,686	6,381,037	-	**12,679,862**	8,375,246	2,142,030	-	**5,258,638**	**2.41**
26	Sumac Credit DTM Ltd	639,025,591	57,537,313	27,193,721	**241,252,208**	51,619,038	40,294,167	18,339,690	**36,750,965**	**6.56**
27	Taifa Options Microfinance	7,617,160	8,777,896	-	**8,197,528**	4,587,323	4,355,449	-	**4,471,386**	**1.83**
28	Women Enterprise Solutions		43,369,818	166,545,067	**104,957,443**	-	26,538,267	25,857,001	**26,197,634**	**4.01**
29	Yehu Microfinance Trust	109,246,570	57,463,760		**83,355,165**	16,392,251	12,526,391		**14,459,321**	**5.76**
30	Youth Initiatives – Kenya (YIKE)	37,520,684	35,202,433		**36,361,559**	17,225,954	24,401,010		**20,813,482**	**1.75**

APPENDIX V1: VARIABLES

	DEPENDENT VARIABLE	INDEPENDENT VARIABLES		
	Y (sustainability)	X_1 (Capital Adequacy)	X_2 (liquidity)	X_3 (Loan Provision)
1	1.85	1.19	2.79	0.03
2	-	-	0.00	0.00
3	1.59	1.42	4.95	0.11
4	-	-	0.00	0.00
5	0.28	2.09	9.76	0.06
6	1.08	2.36	1.59	0.13
7	1.65	0.20	1.20	0.04
8	1.31	-	1.73	0.04
9	3.36	35.95	2.34	0.04
10	1.00	-	2.01	0.02
11	0.73	1.40	3.55	0.07
12	1.67	-	240.02	0.00
13	1.18	0.44	3.51	0.05
14	0.96	28.59	2.03	0.06
15	3.37	-	1.89	0.00
16	1.27	-	1.73	0.05
17	0.64	-	0.81	0.08
18	1.69	-	29.74	0.06
19	1.01	-	5.82	0.04
20	2.87	-	0.43	0.06
21	1.07	0.23	1.35	0.02
22	-	1.03	3.37	0.03
23	1.42	1.27	1.46	0.13

24	0.96	0.25	1.44	0.09
25	2.41	-	2.93	0.01
26	6.56	-	0.31	0.02
27	1.83	-	1.16	0.00
28	4.01	3.05	272.18	0.00
29	5.76	2.08	215.69	0.03
30	1.75	-	11.22	0.00