

**LIQUIDITY RISK MANAGEMENT PRACTICES IN
MICROFINANCE INSTITUTIONS IN KENYA**

By

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**A Management Research Project submitted in partial fulfillment of the
requirement of the Degree of Masters of Business Administration,
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DECLARATION

I George Owino Ogol declare that this Liquidity Risk Management Practices Project is my own original work and that all the sources have been correctly reported and acknowledged, and that this document has not been previously presented for any award at any University to obtain an academic qualification.

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First is to God for giving me strength, determination, knowledge, wisdom and understanding.

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Finally, to my family, friends and relatives for their support and encouragement.

DEDICATION

To My Daughter, Santana Akumu

ABSTRACT

The study is set to explore the liquidity risk management practices by MFIs in Kenya. Emphasis was on the following; understanding the process of liquidity risk identification by MFIs, the extent to which MFIs are classified, monitor liquidity risks, liquidity risk exposure of MFIs and to identify the various practices that the MFIs adopt in managing the liquidity risks.

Primary data was collected through questionnaires distributed to MFIs operating in Nairobi City. Data collected was analyzed by use of descriptive statistics and SPSS (version 17) was used for the purpose of the analysis. Results indicated that MFIs have in place liquidity risk management practices. This is the case when it involves understanding the liquidity risk, identification, analysis/assessment and monitoring. Much of the information was from Risk departments and finance departments for some MFIs who are mainly involved in management of liquidity risks. Majority of the MFIs are liquid with high exposure.

The population of interest in this study consisted of all 41 MFIs listed by the CBK 2002 to which the questionnaires were sent. A total of 30 questionnaires; representing 71% were administered and analyzed.

The study's major limitation was the unwillingness by some MFIs to give out information pertaining to the subject matter.

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LIST OF ACRYNOMS

- ALCO** - Asset Liability Committee
- BOD** - Board of Directors
- CAMEL** - Capital, Asset quality, Management quality, Earnings and Liquidity
Methodology for financial risk analysis and management
- CBK** - Central Bank of Kenya
- CFD** - Contingency Funding Plan
- FSA** - Financial Service Association
- LRM** - Liquidity Risk Management
- MFI**s - Microfinance Institutions
- NGOs** - Non-Governmental Organizations
- PEARLS** - Protection, Earnings, Asset quality, Rates of return and cost, Liquidity and
Signs of Growth methodology for financial risk analysis and management.
- ROSCAs** - Rotating Savings and Credit Associations
- SACCO** - Savings and credit co-operation

CHAPTER ONE - INTRODUCTION

1.1 Background

According to the theories of financial intermediation, the two most crucial reasons for the existence of financial institutions, especially banks and MFIs, are their provision of liquidity and financial services. Regarding the provision of liquidity, banks and MFIs accept funds from depositors and extend such funds to the sector while providing liquidity for any withdrawal of deposits. MFI's role in transforming short-term deposits into long-term loans makes them inherently vulnerable to liquidity risk. The concept of liquidity in finance principally lies in two areas, the liquidity of financial instruments in the financial market and the liquidity related to solvency. The former relates to liquid financial markets and financial instruments. The latter discusses the obligation of MFIs to make payments to third parties Fiedler, (2000).

Risk in financial terms is usually defined as the probability that the actual return may differ from the expected return, Howells & Bain, (1999). In the financial system, there are at least three broad categories of risks, financial risk, business risk and operational risk.

BIS (2008) recommend banks / MFIs to organize the process of liquidity management through identifying, measuring, monitoring, and controlling liquidity risk. Such a process entails at least four elements, the liquidity management policies of the Board of Directors (BOD), the roles of the Asset Liability Committee (ALCO), the effective information system for monitoring and reporting liquidity risk and the roles of

internal control systems for liquidity management.

BIS (2008) outlined process of Sound Liquidity Risk Management Practices in MFIs as, In Governance ,The Board of Directors determines and articulates the “liquidity risk tolerance” for the MFI both qualitatively and quantitatively including ,liquidity ratio limits, cash-flow mismatch limits under normal and stressed conditions, concentration limits on the holdings of liquid assets, as well as concentration limits on funding sources are established costs are allocated to business lines according to their respective risk taking activities so that business incentives are aligned with the MFI’s liquidity risk tolerance. Liquidity cost is calculated based on the cost of maintaining high quality liquid assets and raising longer term funds.

In Risk identification, measurement, monitoring and control, net cash-flow mismatches along different time horizons are measured: day-by-day for the near term to ensure management has a clear picture of the most imminent funding needs, and by time buckets for the medium to long term

Cash-flows are monitored by individual currency when MFIs’ exposures to liquidity risk in respect of that currency are significant. Quantitative criteria are established to define “significant exposures”.

The behavioral and contractual assumptions applied in cash-flow projections to each applicable asset, liability and off-balance sheet item are properly documented. Assumptions used in cash-flow projections are back-tested on a periodic basis and the results are presented to senior management or risk management committees for review.

Effective management information systems are put in place to enable the timely

generation of accurate cash-flow analysis and other liquidity risk management reports, both on a regular basis and upon the request of users.

Regular basic qualitative review of the MFI's resilience to liquidity squeezes is conducted, including reviewing, and when necessary testing is done For Intraday liquidity risk management, review is undertaken of intra-day liquidity reports generated at various predefined times throughout the day to assess cash-flows needs and the adequacy of the MFI's intraday liquidity resources. The respective levels of intra-day liquidity needs, during both normal and stressed market conditions, are regularly reassessed, taking into account potential outflows that may arise from each of the MFI's trading and business commitments. This review is sometimes included as part of the MFI's stress-testing and scenario

As for Stress-testing and scenario analysis, the impact of significant cash outflows under market-wide and institution specific stress scenarios is analyzed. Different assumptions are tailored for each scenario. Reasonable assumptions are applied with respect to key parameters based on relevant market and/or institutional experience. The cash inflows expected to be generated from the sale of liquid assets. Regular reporting of stress-testing results to the senior management is required. Limit excesses in stress-testing are formalized as one of the triggers for the MFI's contingency funding plan.

For Maintenance of liquidity cushion, a reasonable amount of liquidity cushion is maintained by setting floor limits on the holding of very high quality liquid assets which the management believes would remain liquefiable even under very stressful situation.

Finally, Contingency funding plan ,will detailed and prescriptive policies and procedures on a contingency funding plan (CFP) are maintained and comprehensive assessment on the feasibility of the CFP conducted, drawing on experiences in respect of stresses on markets and/or institutional liquidity during past financial crises, Sharma et al (2006).

Financial risk concerns risks arising from the business activities of MFIs, while business risk and operational risk relate to MFIs internal affairs. In this respect, liquidity risk is classified under the financial risk category along with credit risk and market risk Frenkel ,Karmann & Schottens (2004).However, the treatment of risks should be arranged under a causal and interactive system because the causes and impacts of one type of risk cannot be isolated from the other types of risks,Waweru & Kalani (2009).

In this context, cooperation among MFIs management, stakeholders, regulators, and the public is required to enhance sound liquidity risk management. The latest global financial crisis has placed great emphasis on the importance of a sound liquidity risk management program, to prudently deal with unsecured derivative markets, to avoid excessive and imprudent credits, and to increase market discipline Chakra, (2008). In fact, a majority of the MFIs failures occurred due to an insufficient liquidity management program to solve adverse circumstances, Greenbaum & Thakor, (1995).

As MFIs play an increasingly important role in local financial economies and compete for customers and resources, the rewards of good performance and costs of poor performance are rising. Those MFIs that manage risk effectively – creating the systematic approach that applies across product lines and activities and considers the aggregate impact or probability of risks – are less likely to be surprised by unexpected losses

(down-side risk) and more likely to build market credibility and capitalize on new opportunities (up-side risk).The core of risk management is making educated decisions about how much risk to tolerate, how to mitigate those that cannot be tolerated, and how to manage the real risks that are part of the business ,Dokulilova ,Janda & Zetek (2009).

The global financial crisis 2008-2009 is a good example of the failures in derivative markets, which impacted on the ability of MFIs to provide liquidity to third parties , Siddiqi (2008).Managing liquidity risk, however, is more challenging in the current financial market because significant financial innovations and global market developments have transformed the nature of liquidity risk, BIS (2008).

The important discussion in liquidity risk management is to balance the demand for liquidity on the liability side with the supply of liquidity on the asset side. Liquidity risk problems occur if MFIs fail to balance those two sides and do not have sufficient internal liquidity reserves, and fail to obtain funds from external sources , Waweru & Kalani (2009).

For MFIs that evaluate their performance on both financial and social objectives, those decisions can be more challenging for an institution driven solely by profit. A risk management framework allows senior managers and directors to make conscious decisions about risk, to identify the most cost-effective approaches to manage those risks, and to cultivate an internal culture that rewards good risk management without discouraging risk-taking. Many MFIs have grown rapidly, serving more customers and larger geographic areas, and offering a wider range of financial services and products. Their internal risk management systems are often a step or two behind the scale and

scope of their activities. Second, to fuel their lending growth, MFIs increasingly rely on market-driven sources of funds, whether from outside investors or from local deposits and member savings. Preserving access to those funding sources will require maintaining good financial performance and avoiding unexpected losses. Third, the organizational structures and operating environments of MFIs can provide unique challenges. Finally, MFIs are striving developing strategies and policies to measure risks for financial viability through cost-effective and efficient operations, making effective risk management essential to achieving better capital and cash management without undue risk, Siddiqi (2008).

1.1.1 Liquidity Risks

Liquidity risk is the possibility of negative effects on the interests of owners, customers and other stakeholders of the financial institution resulting from the inability to meet current cash obligations in a timely and cost-efficient manner.

Liquidity risk usually arises from management's inability to adequately anticipate and plan for changes in funding sources and cash needs. Efficient liquidity management requires maintaining sufficient cash reserves on hand while also investing as many funds as possible to maximize earnings.

A lender must be able to honor all cash payment commitments as they fall due and meet customer requests for new loans and savings withdrawals. These commitments can be met by drawing on cash holdings, by using current cash flows, by borrowing cash, or by converting liquid assets into cash.

1.1.2 Liquidity Risk Management

Liquidity risk management in banks and MFIs is defined as the risk of being unable either to meet their obligations to depositors or to fund increases in assets as they fall due without incurring unacceptable costs or losses, Ismail (2010). This risk occurs when the depositors collectively decide to withdraw more funds than the bank immediately has on hand, Hubbard, (2002), or when the borrowers fail to meet their financial obligation to the banks. In the other words, liquidity risk occurs in two cases. Firstly, it arises symmetrically to the borrowers in their relationship with the banks, for example when the banks decide to terminate the loans but the borrowers cannot afford it. Secondly, it arises in the context of the banks' relationships with their depositors, for example, when the depositors decide to redeem their deposits but the MFIs cannot afford it ,Greenbaum & Thakor,(1995).

TBS (2001) defines risk as “the uncertainty that surrounds the future events and outcomes the expression of the likelihood and impact of an event with potential to influence an organization’s achievement of objectives risk therefore is the probability that an event in the future, either bad or good, will occur. Basel II states that liquidity risk is one of the major financial risks that MFIs face. It’s described as the risk to have losses because counter party is not capable to carry out its obligations according to the terms of the agreement. Sometimes losses occur even when the counter party does not breach the contract, but there are certain signs showing increasing probability of borrower’s insolvency,TBS (2001) .

The term risk management can mean many things, but in MFI’s business, it

involves identifying events that could have adverse financial consequences and thus taking actions to prevent and/or minimize the damage caused by these events .The potential sources and uses of funds are important factors in managing liquidity ,TBS (2001)

There are various risk categories that an organization can be exposed to, Vedpurshwar (2001) classifies these into three categories. Firstly, there are the hazard risks, which refer to natural hazards, which include accidents, fire etc. Secondly, there are operational risks that cover systems, processes and people. Thirdly, there are financial risks, which include market risks, liquidity risks, solvency risks etc. Globalization and deregulation in financial markets, combined with increased sophistication in financial technology, have introduced more complexities into the activities of MFIs and therefore their risks profiles.

Bhole & Mahakud (2009) alludes that risk management in bank operations includes risk identification, measurement and assessment, and its objective is to minimize negative effects risks can have on the financial result and capital of a bank. Banks are therefore required to prescribe procedures for risk identification, measurement and assessment, as well as procedures of risk management. The risks to which MFI is exposed in its operations market risks, liquidity risks, exposure risks operational risks, reputation risks and strategic risks. These risks are highly interdependent. Events that affect one area of risk can have ramifications for a range of other risk categories. This is why MFIs needs to become circumspect to improve their liquidity risk management system.

1.2 Micro Finance Institutions in Kenya

A Micro finance institution (MFI) is an organization that provides financial services to the poor. This very broad definition includes a wide range of providers that vary in their legal structure, mission, and methodology. However, all share the common characteristic of providing financial services to clients, who are poorer and more vulnerable than traditional bank clients, Ledgerwood (1999)

During the 1970s and 1980s, the micro enterprise movement led to the emergence of nongovernmental organizations (NGOs) that provided small loans for the poor. In the 1990s, a number of these institutions transformed themselves into formal financial institutions in order to access and on-lend client savings, thus enhancing their outreach, Rutto (2008).

Specialized microfinance institutions have proven that the poor are “Bankable”. As the MFI proceeds with the implementation of the Micro finance Act, it remains cognizant of the continuous need to build its capacity and develop its staff capabilities to effectively and efficiently do their business, Rutto (2008). The phenomenal growth of MFI’s was largely driven by the lack of alternative institutions providing any financial services to a majority of Kenyans. However, this growth in numbers has not been uniform, Rutto (2008). In terms of their genesis, the micro-finance and micro-credit institutions in Kenya have followed different development paths but with the main focus of providing varying degrees of credit facilities for Kenyan borrowers in both the urban and rural areas, Jansson (2002). As the micro-finance industry in Kenya grew, the institutions assumed various formal structures and were registered under different

statutes. Towards the end of the 1990s, many micro-finance institutions had moved away from serving closed groups and into more formalized institutions. This institutionalization necessarily required that the micro-finance and micro-credit institutions also move away from subsidized institutions into more commercial entities, Rhyre (2001).

Formal providers are sometimes defined as those that are subject not only to general laws but also to specific banking regulation and supervision. Formal providers may also be any registered legal organizations offering any kind of financial services. Semi formal providers are registered entities subject to general and commercial laws but are not usually under bank regulation and supervision. Informal providers are non-registered groups such as rotating savings and credit associations (ROSCAs) and self-help groups, Rutto (2008)

The Micro finance Act authorizes the Central Bank of Kenya to license, regulate, and supervise the activities of formally constituted deposit-taking microfinance institutions in Kenya. The Act itself simply empowers the Central Bank as regulator, but specific rules subsequently released by the bank serve to govern microfinance activity in practice. In particular, the Bank has imposed core capital requirements designed to ensure adequate liquidity of depository MFIs, and established minimum corporate governance standards and ownership limits.

A model with acronym of “ CAMEL “which stands for Capital Adequacy, Asset quality, Margin, Earnings and Liquidity has been used to regulate and supervise MFIs in Kenya.

The regulations have had little discernible effect to date on the sector's performance, although data from other countries in Africa suggest that asset quality and liquidity of regulated MFIs is better than in unregulated ones. Kenya's experience will likely evolve with time, stronger oversight and enforcement, and the growth of depository MFIs. The transformation of credit-only MFIs into credit and savings MFIs will have implications for the financial technologies and the institutional structure. A microfinance intermediary will not only need to manage funds provided by the government or donors for the credit operations, it will also need to transform maturities, volumes and risks. It will have to match incoming deposits with outgoing loans. Higher management capabilities will be required and staff will need to be sufficiently motivated to meet the challenge. Appropriate incentive structures and control measures will need to be developed.

To attract a significant volume of deposits, an MFI must meet the demand of their deposit customers with regard to safety and liquidity. Safety requirements for deposit-taking MFIs are higher than for credit-only institutions. Cautious risk management must ensure the safety of deposits. At the same time, demand for liquid deposits will lead to higher standards of liquidity management to ensure the accessibility of deposited funds at all times.

External factors such as minimum reserve requirements have effects on the liquidity management of any financial institution. Regulation on minimum reserve requirements is intended to ensure a certain degree of stability and liquidity, but may reach burdensome levels as high as 50% ,Germidis et al. (1991). Liquidity management

may thus be severely handicapped by regulations that freeze significant amounts of deposits.

Internal factors, such as the financial technology reflected by maturities, volumes, and risks of loans and deposits, have implications for the liquidity management of MFIs. Liquidity managers need to solve the matching problem between incoming deposits and outgoing loans. This is an especially difficult task because savings represent largely liquid resources while assets are characterized by longer maturities. Deposit facilities may include mandatory savings, contractual savings, passbook savings and liquid (checking) accounts.

Poor households with high liquidity preference demand savings accounts that are easily accessible do not restrict withdrawals or require high minimum balances. Schmidt & Zeitinger (1994) pointed out that institutions with high deposit volumes and political savers (savers for non-economic reasons) also prefer (renewable) time deposits rather than long-term deposit contracts. These are very volatile and thus impose a high degree of liquidity risk on the MFI.

To ensure institutional liquidity, MFIs try to attract savings with limited withdrawals, which is often counter to customers' preferences. Middle class households with more stable financial savings could be perceived as attractive clients. However, capturing savings from this income group could be cost-intensive and provoke a gradual shift away from the original target group.

Because customers prefer liquid deposit facilities, liquidity management must cope with sudden changes in depositors' liquidity requirements and frequent withdrawals.

Particularly in rural areas, natural disasters may cause the massive withdrawal of deposits and induce rapid depletion of funds. Studies should be conducted on the determinants of savings behavior, the implementation of early warning systems and access to a lender of last resort.

In addition to credit operations, MFIs need safe and liquid investment options to cope rapidly with unexpected changes in depositors' behavior. A second-tier institution can be a lender of last resort to an MFI in times of scarce liquidity as well as a place to deposit excess liquidity. A second-tier institution may function like a liquidity pool and transform different maturities and volumes of particularly when irregular and volatile savings from rural areas predominate, stable relations with a second-tier organization can be very helpful.

1.2.1 Types of MFIs

First tier — Formally Constituted Deposit-taking MFIs intending to take deposits from members of the public will be regulated and supervised by the Central Bank of Kenya via the proposed Deposit Taking Micro Finance Bill. The proposed Deposit Taking Micro Finance Bill will empower the Central Bank of Kenya to license, regulate and supervise formally constituted micro finance institutions intending to take deposits from members of the public.

Second tier — Formally constituted MFIs that do not take deposits from the public but accept cash collateral tied to loan contracts will be regulated and supervised by the envisaged Micro Finance Unit in the Ministry of Finance through regulations issued by the Minister for Finance for the time being. The proposed Deposit Taking Micro Finance

Bill and the legislation establishing the Micro Finance Unit could empower it to enforce compliance with its laid down regulations.

Third tier — Informally constituted MFIs like rotating savings and credit associations (ROSCAs), club pools, and financial services associations (FSA) should not be supervised by an external agency of the Government, CBK (2002)

Deposit taking involves a potential risk of loss depending on how the deposits are employed. As such, MFIs intending to take deposits must be regulated and supervised by an external authority to ensure that deposits are prudently employed and cushioned by adequate capitalization. According to the proposed Bill, money is considered to be a deposit if it has been placed by members of the public; repayable on demand or at expiry of a fixed period or after notice and employed by lending, investing or in any other manner for the account and at the risk of the person employing the money is to identify measure, monitor and control the overall risk.

1.3 Research Problem

Risk is an integral part of financial intermediation. Hence, risk management must be at the heart of finance. However, it is disturbing to note that systematic risk management is still not as widespread as it should be in the Micro finance industry. Except for a few flagship Micro finance institutions (MFIs), which constitute the core of the industry, most MFIs do not pay adequate attention to risk management, Siddiqi (2008).

One of the common techniques used in financial theory to analyze the performance of asset and liability is called the Gap Analysis. This technique assists the

output of the assets side and the liability side over a certain period of time, Heffernan, (2001).

Eugene & Daves (2004) enumerates various reasons why organization needs to manage liquidity risks. Major objective of liquidity risk management in MFI's is to increase the returns for its shareholders owners and to reduce probability of insolvency or turmoil.

Koziol & Lawrenz (2008) provided a study in which they assessed the risk of bank failures the major risks that were faced by these banks were amongst them liquidity risk. A regression model was used to elaborate the results which showed that Risk Identification, and Risk Assessment and Analysis.

Adolphus (2008), studied liquidity management practices of selected Nigerian banks by evaluating, the relevance of treasury objectives in bank portfolio management, causes of asset-liability mismatch in banks, causes of liquidity crisis, incidence of treasury risk, adequacy or appropriateness of liquidity risk management techniques, liquidity planning practices of Nigerian banks, and extent of liquidity exposure in banks. The rampant reported cases of liquidity crisis and financial distress in the Nigerian banking industry have necessitated a study on how to manage the bank's liquidity exposure.

Bhole & Mahakud (2009) alludes that risk management in bank operations includes risk identification, measurement and assessment, and its objective is to minimize negative effects risks can have on the financial result and capital of a bank. Banks are therefore required to prescribe procedures for risk identification, measurement and

assessment, as well as procedures of risk management.

Aggregated stress testing of Lithuanian MFIs results of the 2002 showed that MFIs consider liquidity risk to be the most important risk, constituting over 62% of possible losses.

Dokulilova, Janda & Zetek (2009) in their study on the problems of microfinance and the sustainability of Micro finance institutions (MFI) in financial crisis. they found, that MFIs are often considered as one of the most effective and flexible strategies in the fight against global poverty.

Hassan, (2009), made a study “Risk Management Practices of Islamic Banks of Brunei Darussalam” to assess the degree to which the Islamic banks in Brunei Darussalam implemented risk management practices and carried them out thoroughly by using different techniques to deal with various kinds of risks including liquidity risk.

Previous studies have not dwelled on the liquidity risk management practices by MFIs in Kenya. To the best knowledge of the researcher, no known study has been done on the liquidity risk management practices in MFIs in Kenya. It is on this basis that a survey of the liquidity risk management practices MFIs in Kenya is important. This study has been propelled at surveying the Liquidity risk management practices in Kenya and focused on MFIs in Kenya. The research questions are what are the liquidity risk management practices in MFIs in Kenya? What is the level of liquidity risk exposure of MFIs in Kenya?

1.4 Research Objective

- i To establish the level of liquidity risk exposure of MFIs in Kenya.
- ii To establish the practices adopted by MFIs in Kenya to managing the liquidity risk.

1.5 Value of the Study

This study will be useful to the MFIs , policy makers ,Researchers and government in Kenya: The study will provide information to MFIs to understand their liquidity risk exposure. This will in turn help them put in place the necessary policies and practices to help manage the risk. Better management of liquidity enhances profitability, solvency and growth.

The government will have perfect information in understanding the nature of liquidity risk in MFI industry and this will help the government formulate positive national policies based on the framework that is relevant and sensitive to the liquidity risk management practices. These policies are important in helping uplift the public confidence in MFIs

Researchers will be provided with good insight to those who want to undertake further research on area of liquidity risk management practices and will utilize the study as a source of secondary information.

Policy makers in the financial industry (CBK, KRA e.t.c) will use this paper in understanding to what extent the MFI industry is exposed to liquidity risks. This will help guide them when designing the best practices to adopt in case an MFI is managing liquidity risk.

CHAPTER TWO - LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the review of literature related to this research. It focused on a review of past studies done on liquidity risk management practices of MFIs in Kenya. Emphasis is on liquidity risks and the activities that MFIs undertake to manage these risks. This chapter also presents a review of the theories guiding the study, meaning and importance of liquidity risk management to MFIs. The review also depends on theoretical literature such as books, research papers, magazines, financial reports and information from the Internet.

2.2 Liquidity Risk

The chance that an investment's actual return will be different than expected. Risk includes the possibility of losing some or all of the original investment. Different versions of risk are usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment. A high standard deviations indicates a high degree of risk, Sharma et al (2006).

The quantifiable likelihood of loss or less-than-expected returns includes currency risk, inflation risk, principal risk, country risk, economic risk, mortgage risk, liquidity risk, market risk, opportunity risk, income risk, interest rate risk, prepayment risk, credit risk, unsystematic risk, call risk, business risk, counter party risk, purchasing-power risk and event risk.

The risk that arises from the difficulty of selling an asset. An investment may sometimes need to be sold quickly. Unfortunately, an insufficient secondary market may prevent the liquidation or limit the funds that can be generated from the asset. Some assets are highly liquid and have low liquidity risk while other assets are highly illiquid and have high liquidity risk.

Liquidity is the ability to meet expected and unexpected demands for cash through ongoing cash flow or the sale of an asset at fair market value. Liquidity risk is the risk that at some time an entity will not have enough cash or liquid assets to meet its cash obligations. The most striking example of loss due to this risk is a run-on-the-bank event that causes an institution to fail. This type of event hit banks during the Depression when too many customers demanded to have their money paid immediately in cash and that demand exceeded cash reserves. Less dramatically, smaller losses can occur when a company has to borrow unexpectedly or sell assets for an unanticipated low price, American Academy of Actuaries (2000)

MFIs now allocate large amounts of money and time in developing risk management strategies to help manage risks associated with their business and investment dealings. A key component of the risk management process is risk assessment, which involves the determination of the risks surrounding a business or investment. A fundamental idea in finance is the relationship between risk and return. The greater the amount of risk that an investor is willing to take on, the greater the potential return. The reason for this is that investors need to be compensated for taking additional risk.

2.3 Liquidity Risks Theories

Liquidity risks theories helps to introduce a theoretical and practical knowledge foundation for the analysis and management of liquidity risk, including the examination of specific tools, strategies and policies for liquidity risk management which promotes institutional sustainability.

2.3.1 Banks as Liquidity Providers theory

What ties together the traditional commercial banking activities of deposit-taking and lending? Bryant & John (1980) begun by observing that since banks often lend via commitments, or credit lines, their lending and deposit-taking may be two manifestations of the same primitive function: the provision of liquidity on demand. After all, once the decision to extend a line of credit has been made, it is really nothing more than a checking account with overdraft privileges. This observation leads us to argue that there will naturally be synergies between the two activities, to the extent that both require banks to hold large volumes of liquid assets (cash and securities) on their balance sheets. If deposit withdrawals and commitment take downs are imperfectly correlated, the two activities can share any dead weight costs of holding the liquid assets. they developed this idea with a simple model, and then use a variety of data to test the model's empirical implications, Bryant & John (1980)

2.3.2 Capital Structure with Multiple Investors theory

Berglof & Thadden (1994) studied the problem of financial contracting between a firm and outside investors when the firm cannot commit to future payouts, but assets can be contracted upon. By analyzing the renegotiation between firm and investors in default, they showed that a capital structure with multiple investors specializing in short-term and long-term claims is superior to a structure with only one type of claim, Berglof & Thadden (1994).

2.3.4 Private and Public Supply of Liquidity

Do claims on private assets provide sufficient liquidity for an efficient functioning of the productive sector? Or does the State have a role in creating liquidity and regulating it either through adjustments in the stock of government securities or by other means? In our model, firms can meet future liquidity needs in three ways: by issuing new claims and diluting old ones, by obtaining a credit line from a financial intermediary, and by holding claims on other firms. Holmstrom & Tirole, (1998).

2.3.5 A model of reserves, bank runs, and deposit insurance theory

A model is presented in which demand deposits backed by fractional currency reserves and public insurance can be beneficial. The model uses Samuelson's pure consumption-loans model. The case for demand deposits, reserves, and deposit insurance rests on costs of illiquid and incomplete information. The effect of deposit insurance depends upon how, and at what cost, the government meets its insurer's obligation —

something which is not specified in practice.

2.3.5 A Theory of Bank Capital

Banks can create liquidity because their deposits are fragile and prone to runs. Increased uncertainty can make deposits excessively fragile in which case there is a role for outside bank capital. Greater bank capital reduces liquidity creation by the bank but enables the bank to survive more often and avoid distress. A more subtle effect is that banks with different amounts of capital extract different amounts of repayment from borrowers. The optimal bank capital structure trades off the effects of bank capital on liquidity creation, the expected costs of bank distress, and the ease of forcing borrower repayment. The model can account for phenomena such as the decline in average bank capital in the United States over the last two centuries. It points to overlooked side-effects of policies such as regulatory capital requirements and deposit insurance, Acharya & Pedersen (2005).

2.4 Sources of Liquidity Risks

Liquidity risk arises from many sources, including a financial MFIs business decision to provide liquidity to the markets, potential damage to a MFIs reputation, specific products and activities, and potential changes in the macroeconomic environment.

2.4.1 Event-driven sources

Ratings downgrades or other negative news leading to a loss of market confidence

in a firm were cited as the most significant firm-specific sources of liquidity risk across the sectors. For securities MFIs, a downgrade or other loss of market confidence would impact the MFIs' ability to refinance current unsecured debt obligations, which are their primary sources of funding for activities that cannot be self-financed.

MFIs find that preparing for systemic events presents challenges because scenario analysis requires in-depth and detailed determinations of appropriate assumptions regarding different sources of systemic risk, the speed and timing of the event, its impact across the various MFIs within the industry, and the behavior of counter parties – information that is not easily derived from historical data.

2.4.2 Transaction- and product-driven sources

The primary transaction- and product-driven sources of liquidity risk involve derivatives, other off-balance sheet instruments, and on-balance sheet insurance contracts with embedded options. The most significant sources of transaction-driven liquidity risk at securities MFIs, and among the more significant sources at MFIs, are over-the-counter (OTC) derivative transactions and stock-borrowing transactions, where sharp and unanticipated market movements or events, such as an unanticipated bankruptcy, default, or ratings downgrade, could cause demand for additional collateral from counter parties.

2.4.3 Market trends

In addition to specific products and activities, MFIs noted certain market trends that may increase liquidity risk. MFIs noted that a movement to more volatile funding sources, such as wholesale funds, brokered certificates of deposit, and internet banking,

and depositors' ability to switch funds among accounts by electronic means, have complicated liquidity risk management.

2.5 Liquidity Risk Reduction Techniques

Once liquidity risk has been adequately assessed at all levels, management may decide to take appropriate steps toward minimizing its exposure to liquidity risk. This section lists some possible actions that a company can take while it is operating normally in order to reduce the liquidity risk.

Cash flow match: Ladder asset maturities to closely match liability maturities and expected payments. This increases the chances that there will be cash on hand to meet cash demand.

Diversify assets: An asset portfolio that is well diversified from all perspectives is less susceptible to a stress situation. Assets can be diversified by issuer, industry, region and asset class

Diversify liabilities: Diversification on the liability side by market, product, channel, etc. can also reduce exposure to liquidity risk.

Ladder liability maturities: With liabilities maturing at staggered dates, the company is not forced to "flood" the market with new sales to maintain the level of in-force business. During a "run-on-the-bank," a company may be unable to issue new contracts or, if they can, only on unfavourable terms.

Back surplus/capital with liquid assets: Set aside capital/surplus backed with liquid assets to be available for extreme events such as stress liquidity risk scenario. These assets would cover the difference between the stress scenario asset value and the

liability value realizable over an intermediate term period such as three months. However, there is a price tag involved in back surplus. Reserves generally do not cover this extreme, tail type, event. Establish a durable line of credit. Issue commercial paper: Under normal operations, a company can access short-term markets through issuance of commercial paper. Use repurchase agreements (repos) to mitigate short-term cash needs. The use of repos may allow the company to hold onto liquid assets that are needed for duration matching purposes and thus allow for the orderly liquidation of less liquid assets over a longer time period. The disadvantage to this in a stress liquidity risk scenario is that the repos typically tie up assets that are relatively liquid, so it is usually not a viable long-term solution to solve stress liquidity risk.

Purchase liquidity options from an investment dealer, it may be worthwhile to investigate the various derivative options that are available in the market American Academy of Actuaries (2000).

2.6 Theoretical Framework

The fundamental principles for the management and supervision of liquidity risk clearly spells out the theoretical framework of liquidity risk management. Risk management should, create value, be an integral part of organizational processes, be part of decision making, explicitly address uncertainty and assumptions, be systematic and structured, be based on the best available information, be tailorable, take into account human factors, be transparent and inclusive, be dynamic, iterative and responsive to change, be capable of continual improvement and enhancement.

The 17 Fundamental principles for the management and supervision of liquidity risk is anchored on the four pillars namely Governance of liquidity risk management, Measurement and management of liquidity risk, Public disclosure and The role of supervisors.

A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its role in the financial system.

Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.

A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective

diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner.

A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.

A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested

and updated to ensure that it is operationally robust.

A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position.

Supervisors should regularly perform a comprehensive assessment of a bank's overall liquidity risk management framework and liquidity position to determine whether they deliver an adequate level of resilience to liquidity stress given the bank's role in the financial system.

Supervisors should supplement their regular assessments of a bank's liquidity risk management framework and liquidity position by monitoring a combination of internal reports, prudential reports and market information.

Supervisors should intervene to require effective and timely remedial action by a bank to address deficiencies in its liquidity risk management processes or liquidity position.

Supervisors should communicate with other supervisors and public authorities, such as central banks, both within and across national borders, to facilitate effective cooperation regarding the supervision and oversight of liquidity risk management.

Communication should occur regularly during normal times, with the nature and frequency of the information sharing increasing as appropriate during times of stress.

2.7 Empirical Review

Within the last few years, a number of studies have provided the discipline into the practice of risk management within the MFI industry. An insight of related studies is as follows:

Liquidity risk management should be linked to the organizations business strategy KPMG, (2001). Risk strategy, which provides guidelines for the risk activities within an organization, is built around and supports the business strategy. Risk management structures should be established that clearly identify ownership, responsibilities and accountabilities for risk management. The organization structure and incentive system should be aligned with the goals and objectives of the risk management program. Responsibilities and accountabilities for implementing the risk management program should be clear to all employees. Objectives, strategies and processes should be well documented and available to all stakeholders, Hill & Dinsdale, (1969).

Kim & Santomero (1988) examined the responsibility of bank capital regulation in controlling solvency risk. By employing mean-variance model, they found capital ratios unproductive way to restrict bank's insolvency risk (Bauer & Ryser, 2004) regulatory restrictions, debt ratio, volatility of risky assets, size of liquidation costs and spread between deposit rate and risk less interest rate are the significant constraints that compel bank's hedging decisions.

Koziol & Lawrenz (2008) provided a study in which they assessed the risk of bank failures the major risks that were faced by these banks were amongst them liquidity risk. A regression model was used to elaborate the results which showed that Risk

Identification, and Risk Assessment and Analysis were the most influencing variables and the Islamic banks in Brunei needed to give more attention to those variables to make their Risk Management Practices more effective by understanding the true application of Basel-II Accord to improve the efficiency of Islamic Bank's risk management systems.

Siddiqui (2008) found that Islamic banks in Pakistan were more liable towards considering projects with long-term financing and better performance in terms of assets and return established improved risk management with keeping safe liquidity.

Adolphus (2008), studied liquidity management practices of selected Nigerian banks by evaluating , the relevance of treasury objectives in bank portfolio management, causes of asset-liability mismatch in banks, causes of liquidity crisis, incidence of treasury risk, adequacy or appropriateness of liquidity risk management techniques, liquidity planning practices of Nigerian banks, and extent of liquidity exposure in banks. The rampant reported cases of liquidity crisis and financial distress in the Nigerian banking industry have necessitated a study on how to manage the bank's liquidity exposure.

Sensarma & Jayadev (2009) investigated the risk management of public and domestic private banks of India for the period 1998 to 2006. They found an enhancement on risk management aptitude of the banks. Akhtar et al., (2011) established better performance in elements of assets and return which recognized that conventional banks had improved liquidity risk management than Islamic banks in Pakistan.

Hassan,(2009), made a study "Risk Management Practices of Islamic Banks of Brunei Darussalam" to assess the degree to which the Islamic banks in Brunei

Darussalam implemented risk management practices and carried them out thoroughly by using different techniques to deal with various kinds of risks. The results showed that there was a remarkable understanding of risk and risk management by the staff working in the Islamic Banks of Brunei Darussalam, which showed their ability to pave their way towards successful risk management.

Dokulilova, Janda & Zetek (2009) in their study on the problems of microfinance and the sustainability of microfinance institutions (MFI) in financial crisis. They found, that MFIs are often considered as one of the most effective and flexible strategies in the fight against global poverty. However, current global financial crisis is testing the resilience of MFIs hardly. The MFIs are much more connected to international financial markets now that it was the case during previous crises. Therefore we expect that they will not survive the crisis without bearing some losses. But the expected losses are relatively smaller when compared to other financial institutions.

CHAPTER THREE - RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the research design and methodology which was followed in conducting this study. It describes the research design, population of the study, data collection methods and data analysis used in the study.

3.2 Research Design

The study adopted a descriptive census survey method in trying to establish the extent to which MFIs in Kenya undertake liquidity risk management. The census survey method involved asking the participant's questions on what risks affects them and on the best practices they adopt to manage the risks. The study adopted Census survey method since the population of interest was sizable. This provided full representation.

3.3 Population of the Study

The population of interest in this study consisted of all 41 MFIs listed by the CBK 2002 as in **appendix 2** and the entire population was studied.

3.4 Data Collection Methods

The study involved use of primary data .Structured questionnaires was used to elicit a wide range of baseline information about liquidity risk management practices in MFIs. Risk managers in the MFIs were targeted as respondents. The questionnaire was divided into three (3) parts. Part A gathered background information about the MFIs.

Part B covered the responses on risks identification process and exposure while part C focused on the main liquidity risk management practices adopted by these MFIs.

3.5 Data Analysis

Data analysis aimed at fulfilling the research objectives and provided answers to research questions. The choice of analysis procedures depended on how well the techniques satisfactorily matched the objectives of the study to the scale of measurement of the variables in question. Descriptive statistics like Mean, mode, frequency, and standard deviation was used. Quantitative analysis involved editing, tabulation and coding of data. The editing process involved correcting and inspecting each questionnaire to ensure completeness, comprehensiveness and consistency. Data was then be coded and entered into Statistical Package for Social Sciences (SPSS) version seventeen (17). SPSS was more user friendly that most packages. It is popular because many data sets were easily loaded into it and other programs were easily imported into files. I also used frequencies tables, graphs, pie charts, bar charts and histograms mostly for data presentation. This ensured that the gathered information was clearly understood.

3.6 Data Reliability and Validity

Joppe (2000) defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

Piloting of questionnaires was done with two MFIs to test the validity and reliability of the instrument.

From this pilot study, the researcher was able to detect questions that needed editing and those that were ambiguous. Corrections were done and a final questionnaire was printed for data collection

CHAPTER FOUR - DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter describes and analyses the various liquidity risk management practices that MFIs have adopted in Kenya. This data was collected through questionnaires. The findings are presented in sections that cover the background of the MFIs and the profile of the respondents, classification / identification of the various liquidity risks, management practices and how the various MFIs measure their exposure/gauge the effectiveness of the various methods used to measure the risks. The qualitative data was organized in broad themes that answered the research objectives. Qualitative data was also organized in frequency counts and converted into percentages for clear presentation.

4.2 Respondents Background Information and Profile

Questionnaires were sent out to 41 licensed MFIs operating in Nairobi City. A total of 30 questionnaires were received and analyzed. These questionnaires represented 71 % of what was targeted which is considered to be a reasonably high response rate.

4.2.1 Country of Incorporation and Nature of Operation.

The targeted MFIs were categorized using the country of first incorporation and the nature of operation. The results of the country of first registration and nature of operation were as follows;

Table: 4.2.1.a: Country of first Incorporation

Area of Incorporation	Frequency	Percent
Local	22	74
Foreign	8	26
Total	30	100

Source: Research data

Results indicate that of the 30 MFIs that responded, 22 (74%) were locally incorporated in Kenya where as 8 (26%) were incorporated in foreign countries.

Table 4.2.1.b: Nature of Operation

Nature of Operation	Frequency	Percentage
Regional	7	23
Local	19	64
Multinational	4	28
Total	30	100

Source: Research data

Results indicate that thirty (30) MFIs that responded, 7 (39%) limits their operations within the Nairobi City region, 19 (64%) operates locally in the whole county but have their Head offices in Nairobi City, while 4 (28%) are multinationals.

4.2.2 Duration of Operation

In terms of duration of operation, the research found out that none of the respondents has operated in the country for less than one year and between 1 to five years, this could have been because researcher used CBK list of 2002. 4 (23%) have operated for between 6 to 10 years while 26(77%) have operated for more than 10 years.

Table 4.2.2 Duration of Operation

	Respondents	% of respondents
Less than 1 Year	0	0
Between 1 to 5 years	0	0
Between 6 to 10 years	4	23
Over 10 years	26	77

Source: Research data

4.2.3 Respondents Rank

The study found out that supervisors who were respondents took 33% (10) while majority were managers at 64% (19), One Director of the directors of the various an MFI filled the questionnaires, Position of Respondents.

Table 4.2.3: Ranks of Respondents

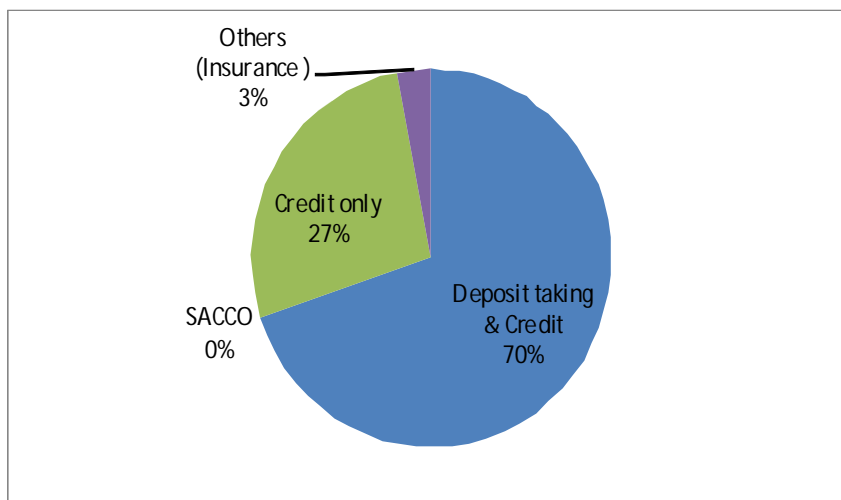
Rank	Frequency	Percentage
Supervisor	10	33
Manager	19	64
Director	1	3
Total	30	100

Source: Research data

4.2.4 Types of MFI

Majority of respondents are both deposit taking and offering credit facility this stood at 70% (21), 27% (8) are offering credit only while 3% (1) offering medical insurance to its members and none was a SACCO. All the also offers capacity building trainings to its members on business related subjects.

Figure 4.2.4 Types of MFI

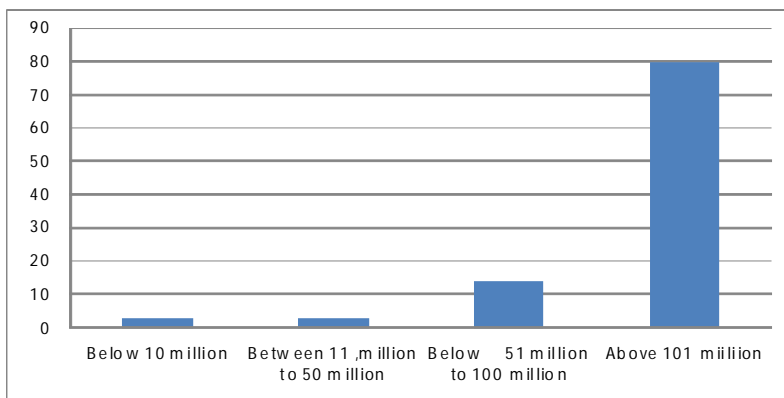


Source :Research

4.2.5 MFIs Customers Deposit

Majority of the MFIs who responded at 80 % (24), have above 101 million as deposit,14%(4) have their deposit between 51 million and 100 million, 3% (1) are between 11 million and 50 ,with another 3 % (1) with below 10 million deposit.

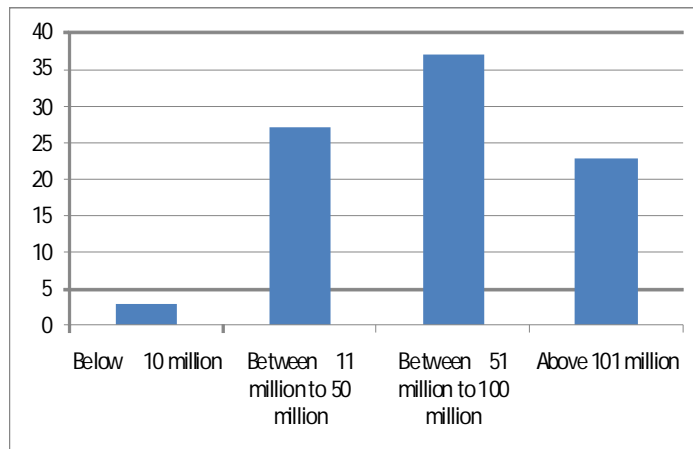
Figure 4.2.5 MFIs Customers Deposit



4.2.6 Loan and advances to MFIs customers

3% (1) have their loans and advances below 10 million, 27 % (8) are between 11 million and 50 million,37 % (11) have loans and advances between 51 million and 100 million while 23 % (10) have their loans and advances above 101 million. The big variance is due to the fact that some MFI are only doing credit only and the high liquidity exposure of majority of the MFIs as explained in 4.5 below.

Figure 4.2.6 Loan and advances to MFIs customers



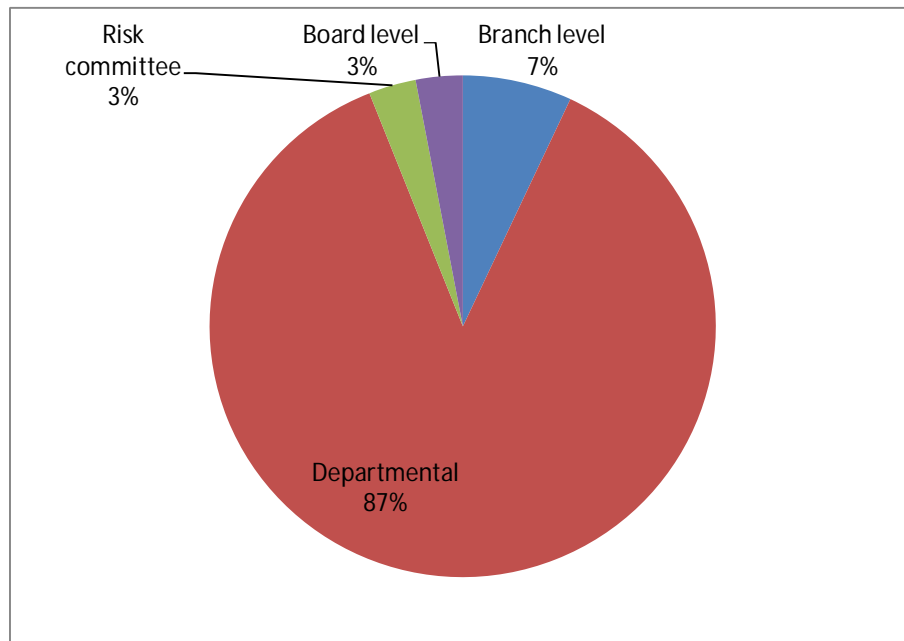
4.3 Classification/ Identification of Risks

The study sought to understand who in the MFIs are responsible and involved in the identification and classification of liquidity risks. These individuals were required to indicate the particular methods they use to identify/classify the risk after which they were to identify the extent to which the MFI is exposed to liquidity risks. These findings were summarized in Tables 4.3.1, 4.3.2 and 4.3.3

4.3.1 Level of Identifying Liquidity Risk

The research sought to determine the level at which MFIs identify and classify liquidity risks. The results were as below

Figure 4.3.1 Level of Identifying Liquidity Risk



Source: Research data

Out of the 30 MFIs that responded 2 (7%) branch level, 26(87%) identify and classify liquidity risks at departmental level while 1 (3%) identify and classify the risk at the Risk committee level. And 1 (3 %) indicated that liquidity risk is identified and classified at the Board level of the MFI, this is the MFI whose director filled the questionnaire.

4.3.2 Liquidity Risk identification Method

The MFIs were required to indicate the extent to which they rely on various risk identification criteria. A Likert scale was used, with the largely used method scoring 5 and the method not used at all scoring zero (1). These sources were analyzed by

computing mean and standard deviation. Their responses were as follows;

Table 4.3.2: Liquidity Risk Identification Method

Method	Mean	Standard Deviation
Investment Guidelines	3.1	1.397
LRM policies	3.7	0.699
Standards and Reports	4.9	0.378
Limits Monitoring	4.6	0.599
Quality of internal communication	3.5	0.945

Source: Research Data

From the above results, standard and reports is the most commonly used method of liquidity risk identification with a mean score of 4.9 followed by Limits Monitoring (4.6), LRM Policies (3.7), and Quality of internal communication (3.5) and finally Investments guidelines at 3.1. The standard deviations were respectively 0.378, 0.599, 0.699, 0.945 and 1.397. Standard deviations for most of these aspects are relatively low at less than one. The findings are an indication that MFIs rely a lot on the methods listed above to identify the various liquidity risks.

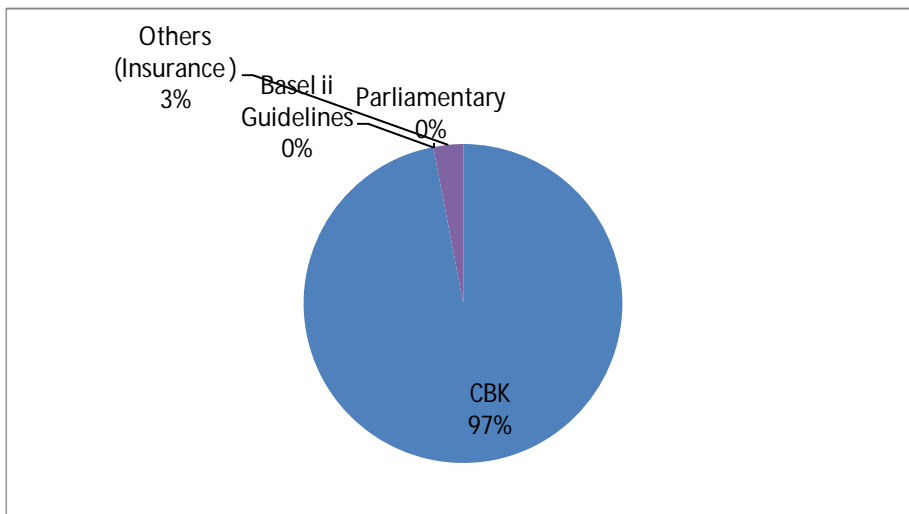
4.4 Liquidity Risk Management Practices

4.4.1 Guidelines Adopted

The respondents were also required to indicate the guidelines they refer to when formulating their liquidity risk management practices. Their responses were that all the

MFIs that responded refer to both Central MFI of Kenya and Basel II Guidelines when formulating their policy guidelines. None of the MFIs reported referring to the Parliamentary Guidelines when formulating their policies.

Figure 4.4.1 Guidelines of formulating the practices

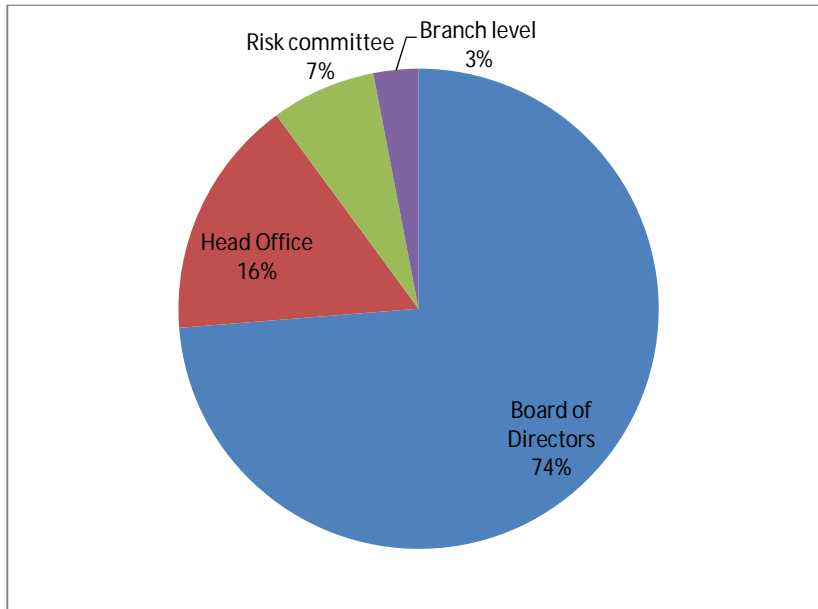


4.4.1 Policy Formulation

Responsibility is an important aspect in any organization. It ensures that people take charge of any form of scenario or aspect. It is for this course that the MFI can be able to trace the source of any problem that may culminate into a loss to the organization. The respondents were therefore asked to indicate who in the MFI is responsible for formulating the relevant liquidity risk management practice. The results indicated that the (7%) of these policies are formulated by the Risk Committee which represented 2 of the respondents. 22(73%) indicated that these policies are formulated by the Board of Directors while 5 (16%) indicated that the Head Office does formulate these policies. 1

(3%) of the respondents indicated involvement by the branch in formulating these policies.

Figure 4.4.1: Policy Formulation

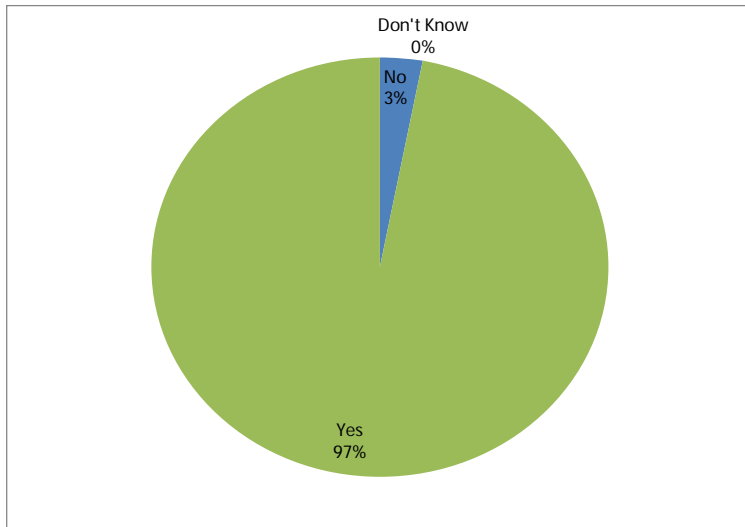


Source: Research Data.

4.4.2 Approved Risk Management Policy

In terms of approved risk management policies, 29(97%) of the MFIs indicated and admitted that they have formally approved liquidity risk management policies.¹ (3%) don't have formally approved liquidity risk management policy in place yet it is a requirement for registration.

Figure 4.4.2: Approved Risk Management Policy

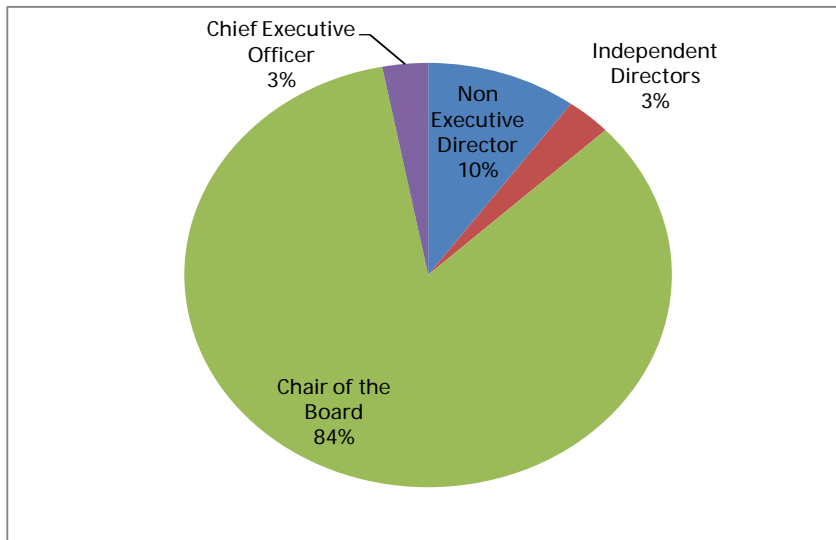


Source: Research Data

4.4.3 Approval of Risk Policy

The study also sought to know who is involved in the approval of the set liquidity risk policies. The results deduced from the study revealed the below;

Figure 4.4.3: Approval of Risk Policies



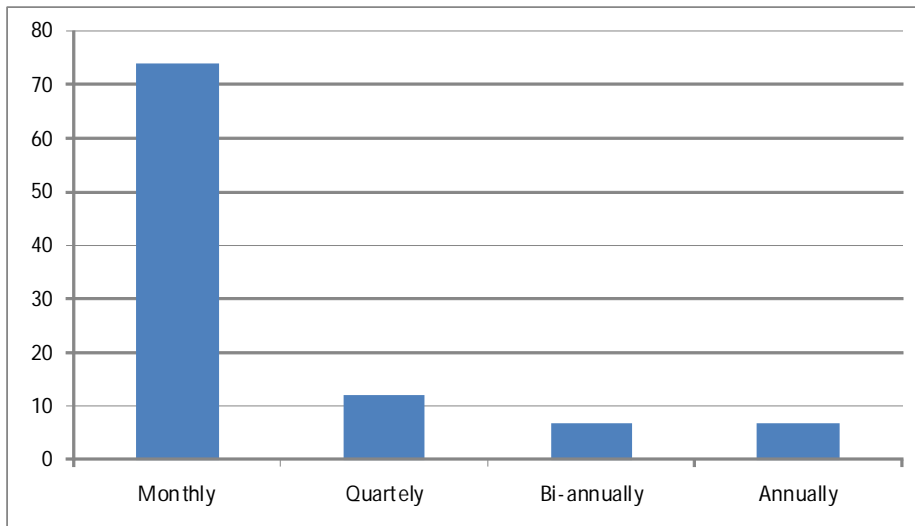
Source: Research Data

Results indicate that 1(5.5%) of the MFIs indicated that their liquidity risk policies are approved by the Non executive Directors, 3(16.7%) done by Independent Directors, 5(27.8%) by the Chair of Board of Directors, 0(0%) by the Chief Executive Officer while a majority of 9(50%) indicated that their liquidity policies are approved by the Executive Directors. The research also sought to know who sits in the Risks committee in which a majority indicated risk directors and departmental risk officers.

4.4.4 Frequency of Meetings

The study also sought to know how frequent the members of the risk committee hold their meetings.

Figure 4.4.4: Frequency of Meetings



Source: Research Data

4.4.5 Validation Processes

A number of practices are adopted and used by MFIs towards dealing with liquidity risks. MFIs like any other organizations use different methods and strategies to wade through the tough times of the economy brought about by the harsh liquidity risks. The researcher was interested in determining the extent to which various issues/variables are used by the MFIs. This was measured in way of five-point Likert scale, where respondents were required to indicate the level or the extent to which they applied the particular risk management practice.

The range was “Very large extent (5)” to “No extent at all (1)”. The scores of ‘No extent’ and ‘Small extent’ have been taken to present a variable which is used to a small extent (S.E) by the MFI (Equivalent to a mean of 2.5 on the Likert scale (0 = S.E being more than 2.5). The scores to “To some extent” have been taken to represent a variable

that is used to a moderate extent (M.E.) by the MFI (equivalent to a mean score of 2.5 to 3.5 on the continuous Likert scale; 2.5 = M.E. less than 3.5). The score of both “Large Extent” and “Very Small Extent” have been taken to represent a variable, which is used to a large extent (L.E.) in the market (equivalent to a mean score of 3.5 to 5 on a continuous Likert scale; 3.5 = L.E being less than 5.0). A standard deviation of more than one implies a significant difference in the extent which the variable is used by the MFI and vice versa.

Table 4.4.5: Validation Process in LRM

Validation Process in LRM	Mean	Std Dev
internal audit	2.8	1.212
Risk management reviews	4.1	0.531
Management certification	3.9	0.627
external audit	2.4	1.753
Regulatory Compliance Certification	3.0	1.166
Control risk self assessment	3.4	1.052
Consultant reviews	2.4	1.745

Source: Research Data

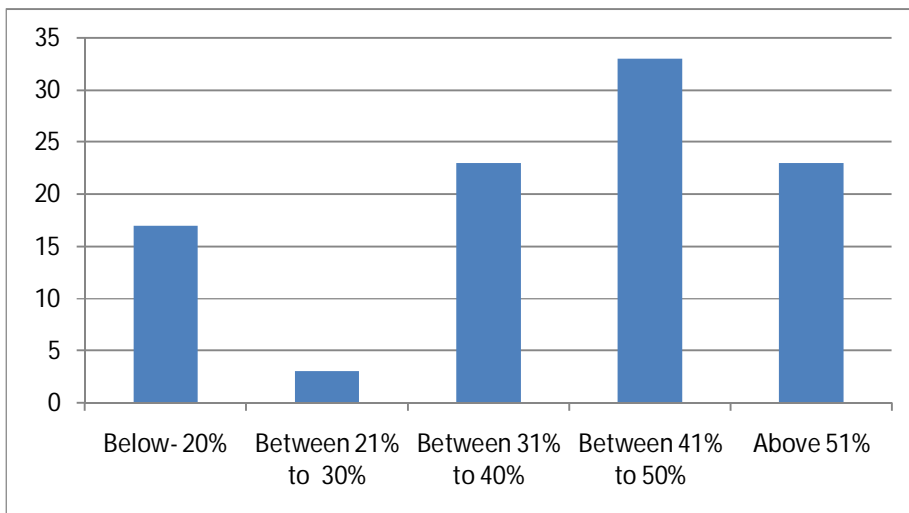
From the results deduced from the above table, it can be observed that in terms of validation methods, risk management reviews, management certification, control risk self assessment, regulatory compliance certification, and internal audit had the highest scores of 4.1, 3.9, 3.4, 3.0, 2.8, 2.4 and 2.4 respectively and standard deviations of 0.531, 0.627, 1.052, 1.166, 1.212, 1.745 and 1.745 respectively an indication that these are popular

methods used by the MFIs. External audit, management certification, consultant reviews and independent agency rating had the least mean scores and standard deviations of respectively. Despite the respondents indicating less usage of the last four above, their standard deviations were more than one meaning that even though they were still significant in the validation of the risks they are used less by MFIs.

4.5 Liquidity Risk Exposure

The target set by CBK is 20%.MFIs below 20% 5 (17%), between 21% to 30% 1(3%), between 31% to 40% 7 (23%), between 41% to 50% are 10 (33%) and above 50% are 7 (23%).More than 80% of MFIs don't meet the set target and are exposed or illiquid.

Figure 4.5.1 Liquidity Risk Exposure



CHAPTER FIVE - SUMMARY OF DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings from the analysis of the data, conclusions reached as well as the recommendations there-of. The chapter concludes with limitations to the study, and suggestions for further study.

5.2 Summary of the Study Findings

The study utilized the explanatory study design where the objectives were to find answers to four questions namely; understand the process of liquidity risk identification by MFIs, the extent to which MFIs classify and monitor liquidity risks, to identify the various practices that the MFIs adopt in managing the liquidity risks and analyze how these MFIs monitor/gauge the success of the various policies adopted.

The findings of the study indicate that most MFIs have laid down policies to refer to in identifying liquidity risks and therefore, have clear-cut methods for their identification. Most MFIs identify liquidity risks at departmental level (87 %) with most of them relying on standard and reports and limit monitoring identification methods. However, it is worth noting that every MFI relied on more than two parameters or methods in identifying the varying liquidity risks.

MFIs have their core risk policy formulation done by the risk committee with the approval of the same done mostly by the chairmen of boards who meet on a monthly

basis. The effectiveness of these policies is then validated by the use of various methods with most of these MFIs preferring to use both risk management reviews and management certification. There seemed to be no consensus in the extent to which the MFIs use the validation methods. This was evidenced by the lack of significant differences in the standard deviations that were mostly less than one. All MFIs conceded referring to Central Bank of Kenya guidelines when formulating the above practices.

5.3 Conclusions and Recommendations

For most MFIs loans and deposits are the largest and most obvious source of liquidity risk; MFIs are increasingly facing liquidity risk in various financial instruments other than loans and deposits, including foreign exchange. The research findings indicate the extent of liquidity risk management in most MFIs is above average. Additionally, there are well formulated practices to guide the MFIs in the design and implementation of liquidity risk management policies.

The sensitive nature of this industry calls for checks and balances in liquidity risk. However, the research findings indicated that the extent of use of liquidity risk monitoring methods is quite low. The goal of liquidity risk management is to match assets- liability and maintain liquidity risk exposure within acceptable parameters. MFIs need to manage the liquidity risk inherent. The effective management of liquidity risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any MFI.

Since exposure to liquidity risk continues to be a major risk in MFIs world-wide, should follow the laid down 17 fundamental principles of liquidity risk management

practices. MFIs should now have a keen awareness of the need to identify measure, monitor and control liquidity risk as well as to determine that they manage liquidity risk in a more acceptable manner to avoid MFIs insolvency and or bankruptcy.

While the exact approach chosen by individual supervisors and MFIs in general will depend on a host of factors, including their on-site and off-site supervisory techniques and the degree to which external factors are also used in the supervisory. Supervisory expectations for the liquidity risk management approach used by individual MFIs should be commensurate with the scope and sophistication of the MFI's activities. For smaller or less sophisticated MFIs, supervisors need to determine that the liquidity risk management approach used is sufficient for their activities and they have instilled sufficient risk-return discipline in their liquidity risk management processes.

5.4 Study Limitations

The major limitation encountered was the rigidity, inflexibility and unwillingness by the MFIs to give out information pertaining to their liquidity risk management practices. Most of the MFIs feared that information could be shared by others.

5.5 Suggestions for Further Study

The study focused on understanding the liquidity risk management practices of MFIs in Kenya. Similar research should be replicated with other risks such as operation, foreign exchange and technology risks that affect the MFIs industry as the results will greatly forewarn the players in this sensitive industry to take great care as they seek to grow, expand and at the same time win the confidence of their customers.

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7 APPENDICES

7.1 Appendix 1 – Questionnaire

Part A - Background

1. Name of MFI _____
2. Where registered/incorporated
- Local (Kenyan) – Foreign (Outside Kenya) - Other _____
3. Nature of Operation
 - a). Regional
 - b). Local
 - c). Multinational
 - d). Other
4. How long has the MFI been in operation in Kenya?
 - a). Less than 1 year
 - b). Between 1 and 5 years
 - c). Between 6 and 10 years
 - d). Over 10 years
5. What is the Model of your MFI?
 - a) Deposit taking & Credit
 - b). SACCO
 - c). Credit only
 - d). Other
6. What services does your MFI offer?
 - a) Savings
 - b). Insurance
 - c). Loans
 - d). Other

Part B -Classification of Liquidity Risk;

1. At what level does your MFI identify/classify Liquidity Risk?

- Branch Level
- Departmental Level
- Risk Committee
- Board Level

2. What is your current deposit?

- Below 10 million
- 11 million to 50million
- 51 Million to 100 million

4 What is your current Advances?

- Below 10 million
- 11 million to 50million
- 51 Million to 100 million

5 Please indicate the extent to which your MFI rely on the following to identify Liquidity risk. Applying and using the rating/measurement system in your MFI on a scale of 1-5 where;5 is = to a very large extent,4 is = to a great extent,3 is = medium extent,2 is = small extent,1 is = no extent at all,

Number	Liquidity Risk Identification method	Effect				
		5	4	3	2	1
i.	Investment guidelines					
ii.	Risk management policies					
iii.	Standards and reports					
iv.	Limits Monitoring					
v.	Quality of internal communication					
vi.	Other (please specify)					

Part C -Liquidity Risk Management Practices

1. Who in your MFI is responsible for formulating the Liquidity Risk management policies?

- Board of Directors
- The Head Office
- The Risk Committee
- Branch Level

2. Does your MFI have a formally approved liquidity risk management policy?

- No
- Don't know
- Yes

3. Who approves the overall Liquidity risk management policy in your bank?

- Non Executive directors
- Independent Directors
- Chair of the Board
- Chief Executive Officer

4. How often do they meet?

- Monthly
- Quarterly
- Bi-annually
- Annually

6. Indicate the level of your MFI reliance on each of the applicable validation processes

Validation Method	High	Medium	Low
External audit			
Risk management reviews			
Management certification			
Internal audit			
Regulatory compliance certification			
Control risk self assessment			
Consultant reviews			
Independent Agency Rating			
Other (please specify)			


8. What Guidelines do they (refer to above) follow in formulating the practice?

- Central Bank of Kenya ()
- Basel ii Guidelines ()
- Parliamentary Guidelines ()

7.2 Appendix 2 – List Of MFIs

1. Mortgage Financiers Code
2. Saving & Loan (K) Ltd
3. U & I Micro finance Limited
4. Yehu Enterprises Support Services
5. Kenya small Traders Enterprises (KSTES)
6. KOPLING
7. RECA
8. SAGA
9. Swiss Contact
10. Kenya Post Office Savings Bank
11. Pride Africa
12. SISDO
13. SMEP
14. HAPPAC
15. WEDCO
16. AAR Credit Services
17. Agakhan Foundation
18. Biashara Factors Limited
19. Blue Limited
20. Care Kenya
21. CENTS SACCO
22. Equity Bank
23. Family Bank
24. Faulu Kenya DTM Limited
25. FINA Bank
26. Fusion Capital Ltd
27. Jamii Bora
28. Jitegemee Trust Ltd (JTL)
29. Juhudi Kilimo Company Limited
30. K-rep Development Agency
31. KADET
32. Kenya Eclof
33. Kenya Entrepreneur Empowerment Foundation (KEEF)
34. Kenya Gatsby
35. Kenya Women Finance Trust
36. Modyn Credit Limited -
37. Oiko Credit
38. Opportunity International
39. Pamoja Women Development Programme
40. Renewable Energy Technology Assistance Programme (RETAP)
41. Widows Orphans Welfare Society (WOWESOK) **Source: CBK 2002**

7.3 Authorisation Letter


UNIVERSITY OF NAIROBI
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Nairobi, Kenya

Date: 17th October 2011

TO WHOM IT MAY CONCERN

The bearer of this letter George Owino Ogol

REGISTRATION NO: D61/70124/2007


The above named student is in the Master of Business Administration degree program. As part of requirements for the course, he is expected to carry out a study on Liquidity Risk Management Practices in Micro – Finance Institutions in Kenya

He has identified your organization for that purpose. This is to kindly request your assistance to enable him complete the study.

The exercise is strictly for academic purposes and a copy of the final paper will be availed to your organization on request.

Your assistance will be greatly appreciated.

Thanking you in advance.

Sincerely,

MR. ALEX JALEHA
COORDINATOR, SOB, KISUMU CAMPUS

CO-ORDINATOR
18 OCT 2011
SCHOOL OF BUSINESS
KISUMU CAMPUS
UNIVERSITY OF NAIROBI

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