

**INFLUENCE OF COST STRUCTURE ON INTEREST RATE LEVEL OF  
MICROFINANCE BANKS IN NAKURU COUNTY, KENYA**

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF  
ECONOMICS, ACCOUNTS AND FINANCE IN THE COLLEGE OF HUMAN  
RESOURCE DEVELOPMENT IN PARTIAL FULFILLMENT FOR THE  
DEGREE OF MASTER OF SCIENCE IN FINANCE  
OF THE JOMO KENYATTA UNIVERSITY OF  
AGRICULTURE AND TECHNOLOGY**

**MAY 2018**



## **DEDICATION**

I dedicate this research project to my parent Mr. and Mrs. Kitur, my grandparents Mr. and Mrs. Ngeno and Mr. Collins whose wishes were for me to take this course, for moral and inspirational support they provided to me during my studies. Dedication also goes to my classmates and lecturers for their encouragement and making my studies possible.

## **ACKNOWLEDGEMENT**

I wish to express my gratitude to my supervisor, Mr. Weche and all those who helped to make this research project possible. May the Almighty God bless you.

## ABSTRACT

Microfinance institutions incur costs not only in sourcing funds and disbursement of these funds to microfinance clients but also in promotion and monitoring of microfinance client groups and development of processes for improving efficiencies of service delivery. The general objective of the study was to assess the Influence of cost structure variables and interest rates level on loans charged by MFBs in Nakuru County, Kenya. Specifically, the study sought to establish the influence of financial costs, credit administration costs, loan default costs and cash holding costs on interest rate level of microfinance banks in Nakuru County. The study was based on three theories: Conventional Economic Efficiency Theory, Financial Sustainability Theory, and Free Cash Flow Theory. Descriptive survey study design was adopted for the study. The target population comprised 127 respondents where a sample size of 56 respondents was selected through stratified random sampling. Primary data was used which was collected using structured questionnaires. Data collected was analyzed using both descriptive and inferential statistics with the aid of SPSS and presented using inferential statistics tables. The research findings indicate that there a statistically significant non causal relationship between Financial Costs and Interest rates level of microfinance banks ( $r= 0.677$ ,  $p<0.05$ ). It was established that financial costs have a significant influence on interest rate level set by microfinance banks ( $\beta = 0.424$ ,  $p<0.05$ ). There a statistically significant non causal relationship between credit administration costs and Interest rates level of microfinance banks ( $r=0.724$ ,  $p<0.05$ ). It was established that credit administration costs have a significant influence on interest rate level set by microfinance banks ( $\beta =0.566$ ,  $p<0.05$ ). The results further indicated that default costs are positively correlated with interest rates level of microfinance banks ( $r=0.542$ ,  $p<0.05$ ). Further loan default costs had a statistically positive influence on interest rate level of microfinance banks ( $\beta = 0.364$ ,  $p<0.05$ ). The results further indicated that cash holding costs had are positively correlated with interest rates level of microfinance banks ( $r= 0.636$ ,  $p< 0.01$ ). Further cash holding costs had a statistically positive influence on interest rate level of microfinance banks ( $\beta = 0.311$ ,  $p<0.05$ ). It can be concluded that financial costs, credit administration costs, loan default costs and cash holding costs have a significant influence on interest rate level of microfinance banks. It was recommended that the microfinance banks in Nakuru County should take measures to minimize costs in order to keep their interest rates at the lowest possible level and remain competitive

*Key words: costs structure, interest rate level*

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## **ACRONYMS AND ABBREVIATIONS**

<b>CBK</b>	Central Bank of Kenya
<b>CCD</b>	Commissioner for Cooperative Development
<b>IAS</b>	International Accounting Standards
<b>IFRS</b>	International Financial Reporting Standards
<b>MFBs</b>	Microfinance Banks
<b>MFI</b>	Microfinance Institutions
<b>RCA</b>	Rwanda Cooperative Agency
<b>SACCO</b>	Savings and Credit Cooperative Society
<b>SPSS</b>	Statistical Package for Social Sciences

## DEFINITION OF TERMS

**Cash Holding Costs:** The cost of carrying or holding cash is the sum of money tied up in inventory, such as the cost of capital or the opportunity cost of the money (Murray, 2011).

**Cost Structure:** The expenses that a firm must take into account when manufacturing a product or providing a service. Types of cost structures include transaction costs, sunk costs, marginal costs and fixed costs. The cost structure of the firm is the ratio of fixed costs to variable costs.

**Credit Administrative Costs.** The costs incurred in processing and administration of loan applications by financial institutions or lenders repayment (Campion, et. al., 2010).

**Financial Costs:** The interest and other costs that an entity incurs in connection with the borrowing of funds (IFRS, 2014). In this study financial cost includes costs and fees that are charged by lenders who lend to microfinance banks

**Interest Rate :** The amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets. Interest rates are typically noted on an annual basis, known as the annual percentage rate (APR).

**Loan Default Costs:** The costs incurred by an MFB when a client fails to pay interest or principal on a loan or security when due. Default occurs when a debtor is unable to meet the legal obligation of debt repayment (Investopedia, 2017).

**Microfinance Bank:** A company licensed to carry on micro finance business by accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice (Microfinance (Amendment) Act, 2013).

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Microfinance institutions (MFIs) the world over have been identified as critical institutions to nations' quest for solutions to their development challenges (Consultative Group to Assist the Poor, CGAP, 2004). The microfinance industry, which over the past years came under pressure to fill the poverty gap and become self-sustaining, has to some respect succeeded in doing so. What once started off as microcredit, a simple service offering micro-loans to the world's unbanked populations, has evolved into complex microfinance markets operated by thousands of Microfinance Banks (MFBs)(Ernst & Young Global Limited, EYGM, 2015). Their products and service offerings aim to provide low-income people with tools to meet credit and saving needs as well as manage risk and efficiently execute transactions. Consequently, a significant number of MFBs have taken important steps towards professionalization and transformation into well organized, well-managed and commercially viable institutions that provide financial services to an increasing number of clients with proven poverty reducing impact.

Microfinance was started by Mohammed Yunus in 1976 when he launched the Grameen Bank Project in Jobra, Bangladesh to experiment with a credit system that would provide banking services for the rural poor. The bank had four objectives: to extend banking facilities to the poor, to eliminate exploitation of the poor, to promote self-employment for rural unemployed and to include the most disadvantaged (especially women) in leadership roles. In 2008 Yunus rose to the challenge to prove that micro lending was not about developing and developed – the poor faced the same challenges regardless of wherever they are in the world. He along with several corporate sponsors including Citi Foundation and Capital One launched Grameen America in New York. Since then the financial outfit – not bank - has been serving the poor, mainly women, throughout four of the city's five boroughs (Bronx, Brooklyn, Manhattan, and Queens) as well as Omaha, Nebraska and Indianapolis, Indiana. In four years, Grameen America has facilitated loans to over 9,000 borrowers valued over \$35 million (Grameen America, 2017).

In the African context, several commercial banks and other formal institutions have been reluctant to cater for the credit needs of smallholders, mainly due to their lending terms and conditions. It is generally the rules and regulations of the formal financial institutions that have created the myth that the poor are not bankable, and since they cannot afford the required collateral and, hence, are considered not creditworthy (Adera, 2005). Hence despite efforts to overcome the widespread lack of financial services, especially among microfinance in African countries, and the expansion of credit in the rural areas of these countries, the majority poor still have only limited access to bank services to support their private initiatives (Braverman & Guasch, 2006).

A case in point is Morocco where access to credit remains very difficult for large segments of the population with low or unstable incomes. They have been systematically neglected by the banking system over a long time as no bank targeted the poor, although, presently two commercial banks have established microfinance banks to provide micro credits in Morocco. Credit demand is far from being met in the country where the demand for microcredits was estimated to be between 500.000 and 1.2 million in 2000, which means that all MFIs serve only 10 – 25% of the potential market. In 2012 the supply remained limited, with an access rate of 16% (Kessy & Urrio, 2013).

According to Nitin (2006), MFIs incur costs not only in sourcing funds and disbursement of these funds to microfinance clients but also in promotion and monitoring of microfinance client groups and development of processes for improving efficiencies of service delivery. Costs observed in the microfinance industry include: the cost of promotion and monitoring of group processes, the cost of taking financial services to the client doorstep, costs for service sustaining and managing, establishment expenses, process improvement, compliance and institutional development and financial costs. As an MFI matures with age, the service delivery efficiencies improve.

Many critics of microfinance accuse the sector of profiteering off the backs of poor clients with all-too often higher than necessary interest rates (Cazacu, Dolgaya, Bruckner & Kortenbusch, 2016). A 2013 CGAP study on the subject showed that the percentage of borrower interest payments that went to profits dropped from one-fifth

in 2004 to one-tenth in 2011; however, interest rates have remained relatively constant since 2007, even where one would expect downward pressures to lower the rates. Discussions have since moved to be centered on examining the costs of service delivery and their effects on the level of interest rates.

A study by GIZ's Pro-Poor Growth and Promotion of Employment (SEDIN) Programme (2015) found that the prices for microloans in Nigeria are high both in absolute terms and when compared to their peers abroad. A high observed required yield indicates that Nigerian MFBs are quite inefficient; while a high APR suggests that these costs are passed on to customers. Furthermore, although high costs generally seem to drive the high APR levels found, there is no clear pattern of how MFBs use internal performance data to price their products. In Tanzania, it was found that though micro and small enterprises contribute around 32 percent of the GDP, MFIs have limited coverage and poor organizational structures, and are often donor-driven (Kessy & Urio, 2005).

### **1.1.1 Microfinance Institutions in Kenya**

The main objective of the financial sector reforms in 2004 was to promote private savings and investment and lower interest rate levels and spreads through competition and the intermediation efficiency (Republic of Kenya, 2004). CBK was to uphold a financial system with market determined deposit and lending rates. One of the main aims of the financial reforms was the improvement of Microfinance activities to access savings, credit and other financial services to majority low income Kenyans. MFBs were developed in Kenya as a tool for fighting poverty through the Micro Finance act 19 of 2006 that empowered CBK to license, regulate and supervise MFBs (Bokea, 2007).

The institutions that provide Microfinance in Kenya include commercial banks, Savings and Credit Cooperatives, pure MFBs, Accumulating and Rotating Savings and Credit Associations and other money lenders. These institutions register with their umbrella body of the Association of Micro Finance Institutions (AMFI) that is funded through grants from USAID (United States Agency of International Development) and which represents MFBs internationally (CBK, 2016).

MFBs are an initiative of the government developments and effort to promote and improve credit access to low and middle class. By definition, Micro Finance is the provision of convenient financial services and products to the poor, low income households, Micro and Small enterprises (Republic of Kenya, 2004). They offer Micro credit schemes and attract savings to meet the demand for loans (CBK, 2007). The MFBs avail credit to clients who previously found it extremely difficult to access credit from commercial banks and other formal financial institutions due to high lending rates (Republic of Kenya, 2004). MFBs generate revenue through charging interest on loans. In Kenya, MFIs are given the mandate to formulate credit policy and procedure that deal with lending and the lending rates to be charged (Central Bank of Kenya, 2004).

The Micro Finance Act categorizes MFIs into two tiers: the deposit taking MFIs and Credit only MFIs. MFIs that accept deposits are further categorized into two: Nationwide MFBs which operate nationally and have a minimum capital requirement of Kshs. 60 million and Community based MFBs which operate within specific regulations with a minimum capital requirement of Kshs. 20 million. MFBs are permitted to carry out the following activities: Mobilizing savings from the general public, Providing credit or lending facilities, Domestic money transfers and providing safe custody, Collecting money or proceeds of banking instruments on behalf of their customers, Provision of payment services such as salaries, gratuity, pension for government agencies, Micro leasing facility operations, higher purchase and credit schemes that are Micro Finance related and Mobilize clients, offer professional, financial, technical assistance, training and administration and marketing advice (Republic of Kenya, 2006).

In Kenya MFBs have been charging high interest rates as opposed to the banks that have been put on interest rate cap of 4% above the central bank rate. This regulation by the Central Bank of Kenya was meant to enhance access to credit by reducing the cost of accessing credit. Sologoub (2006) highlights that high interest rate is indicative of inefficiency in the banking sectors of developing countries, as it is now widely acknowledged that interest rate spreads are an adequate measure of bank intermediation efficiency. The interest rate spread (IRS), is an important determinant of the efficacy of the financial system in a country (Hassan and Khan, 2010).

A high interest rate spread could mean unusually low deposit rates discouraging savings mobilization and limiting resources available to finance bank credit (Mustafa & Sayera, 2009). In a Fin Access National Survey (2009), one in three Kenyans was found to be excluded from the financial system, while 27% only had access to informal financial-service providers and the remaining 40% had access to formal providers such as banks, MFBs, and savings and credit cooperatives (SACCOs). Comparison with the 2013 data shows that the proportion of the adult population using different forms of formal financial services stood at 66.7% in 2013 compared to 41.3% in 2009. Similarly, the proportion of the adult population totally excluded from financial services had declined to 25.4% in 2013 from 31.4% in 2009 (FinAccess National Survey, 2013).

## **1.2 Statement of the Problem**

In Kenya microfinance banks have been charging high interest rates as opposed to banks that have been put on interest rate cap of 4% above central bank rate. Many critics of microfinance accuse the sector of profiteering off the backs of poor clients with all-too often higher than necessary interest rates. A central problem is that the interest rate presented to its customers often differs radically from the actual percentage rate an MFB charges, once the calculation method, timing, upfront fees and compulsory savings are accounted for. The difference is especially large for MFBs providing the smallest loans to the poorest and most rural clients, as they have the highest operating expenses and thus must charge the highest interest rates to remain viable. The rigorous assessment methods required increase an MFB's operating costs and personnel costs account for the largest portion of total operating expenses, representing around 60–70% of the total cost, followed by other administrative expenses. MFBs currently provide financial services to an estimated 15 per cent of the country's total population as compared with 10 per cent for the commercial banking sector. Globally, interest rate spread between January 2002 and December 2012 averaged at 9.68 percent in comparison with a spread of 6.90 for African countries and 7.13 for East African countries (CBK, 2012).

In order for MFBs to attain financial sustainability, they must apply high but not exorbitant interest rates. However, the interest question still remains largely a delicate balancing act where too low interest rates on one hand will lead to operational



challenges as the cash available cannot fully cover for the costs. Further, the operations are unlikely to be profitable. High interests on the other hand will lead to less demand for credit and higher default risks. The prices for microloans in Nigeria are high and that there is no clear pattern of how MFBs use internal performance data to price their products leading to disagreements over the interest rates charged by MFBs. Studies on interest regimes applied by MFBs have so far not yielded information on the influence of cost structure on the interest rates. This study, therefore, aims at finding out the cost structures of the MFBs and their contributions to the interest rates charged on their products.

### **1.3 Objectives of the Study**

The study was guided by the following objectives.

#### **1.3.1 General Objective**

To examine influence of cost structure on interest rate level of microfinance banks in Nakuru County, Kenya.

#### **1.3.2 Specific Objectives**

- i. To evaluate influence of financial costs on interest rates level of microfinance banks in Nakuru County, Kenya.
- ii. To assess influence of credit administration costs on interest rates level of microfinance banks in Nakuru County, Kenya.
- iii. To examine influence of loan default costs on interest rates level of microfinance banks in Nakuru County, Kenya.
- iv. To establish influence of cash holding cost on interest rates level of microfinance banks in Nakuru County, Kenya.

### **1.4 Research Hypotheses**

The following hypotheses were formulated:

H<sub>01</sub>: Financing costs have no statistically significant influence on interest rates level of microfinance banks in Nakuru County, Kenya.

H<sub>02</sub>: Credit administration costs have no statistically significant influence on interest rates level of microfinance banks in Nakuru County, Kenya.

H<sub>03</sub>: Loan default costs have no statistically significant influence on interest rates level of microfinance bank in Nakuru County, Kenya.

H<sub>04</sub>: Cash holding costs have no statistically significant influence on interest rates level of microfinance banks in Nakuru County, Kenya.

### **1.5 significance of the Study**

The study is meant to be of benefit to microfinance banks in the area and at large as it was to enable them identify the cost drivers and formulate strategies to mitigate their effects on their operations. To the clients of microfinance banks, the study expects that through its findings and recommendations, clients will be enlightened on the happenings of the MFB that lead to higher interest rates and consequently inform their decisions to fully cooperate with the MFBs when applying for and repaying credit advanced to them. Donors and other MFB supporting agencies will also benefit from the study as through the findings and recommendations, they will be able to review their engagement with the MFBs and make appropriate interventions.

The government as the chief policymaker and regulator may also find the study useful in informing their policy decisions on micro-lending, MFBs and interest rates so as to support the economically critical sector. Academicians and scholars will find the study useful as it forms the basis upon which further studies on determinants of interest rates in financial institution could be conducted as well as adding to the body of knowledge in finance discipline

### **1.6 Scope of the study**

This study presents the influence on cost structure on interest rates in microfinance bank the research focused on microfinance banks in Nakuru County. The specific variables were financial costs, credit administration costs, default costs, and cash holding costs. The study was conducted within the months of October 2017 to March 2018. The target population was comprised 127 respondents where a sample size of 56 respondents was selected through stratified random sampling. Primary data was used which was collected using structured questionnaires

### **1.7 Limitations of the Study**

Mugenda & Mugenda (2003) explain that limitations are aspects of a research that may influence the results of the study but over which the researcher has no control. The study was limited to responses to a self-report which was acquired from the respondents who are the microfinance banks staffs. The researcher faced a lot of challenges during the study which are not limited to the following limitations; Other institutions or branches were not willing to give information as they are not allowed to answer questionnaires without authorization from the top authority. Other respondents were not willing to take part filling questioner even after being assured of confidentiality as they were busy and others are not allowed to give confidential information to public. Micro finance banks books are not detailed, only generalized as cost hence the researcher had difficulties in obtaining secondary data.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter summarizes the information from other researchers who have carried out research in similar field of study. The specific areas covered are review of literature on theories that guide study, empirical studies that relate to cost structure in MFBs and interest rates, and the research gap.

#### **2.2 Theoretical Framework**

##### **2.2.1 Conventional Economic Efficiency Theory**

This theory stipulates that companies should achieve their output at the lowest possible cost per unit produced. Economies of scale may achieve optimal production, and counteracting perceptible benefit repeated by more costs associated with overstressing the existing systems. In the short run, the situation of maximum operational efficiency is the level of output at which all accessible economies of scale are taking advantage of such efficiency. In the end, lifting the capacity of existing systems can increase the optimal level of productive efficiency (Zerbe, 2001). The conventional economic efficiency theory is in two parts, allocative (price) efficiency criteria and the productive (technical) efficiency criteria. Maximum allocation efficiency is the point when the business produces the optimal output of a combination of goods and services to maximize the benefit to the business as a whole (Said, 2011).

The second element of conventional economic efficiency theory relates to the way existing resources are allocated. The logic is that high levels of competition among producers should prevent them from making excessive profits by raising their selling prices to an unreasonable level above their marginal costs. At the company level, maximum allocative efficiency is achieved when the firm produces the optimal output level of a combination of goods or services to maximize the benefit to the company as a whole. The theory takes account of the fact that company resources are finite and can be used only once, with the result that using a quantity of a material for one purpose involves an opportunity cost—that is, it denies the company the chance to use the same material for another purpose.

For microfinance banks to operate at efficient level, then all the microfinance bank products must have optimal pricing. This will in turn reduce unfair competition in the market and reduction in interest rate spreads (Zerbe, 2001). The productive efficiency takes place when the business employs all of its resources efficiently, producing the most output from the least input (Quinzi & Sujaya, 1993). Many researchers have employed the theory of conventional economic efficiency to measure efficiency in banking systems (Barr, Killgo, Siems & Zimmer 2002; Saad & El-Moussawi, 2009).

The Conventional Economic Efficiency Theory is relevant to this study since it provides a basic framework to help understand the various factors that are associated with existing operating costs. An understanding of the main principles of the theory can provide scope for managers to find ways of making some elements of their business work more efficiently. For the microfinance managers to achieve allocative efficiency this will occur only when no other pattern of utilization of resources can deliver a better overall result in terms of the welfare of all interested parties

### **2.2.2 Financial Sustainability Theory**

Long-term survival and sustainability is critical for an MFB in being able to reach its target clientele and cover administrative and other costs. While social goals of reaching the poorest and poverty alleviation are valid, sustainable standing on one's own feet is as true for low income households receiving microfinance, as for the microfinance itself. Sustainability for microfinance has internal and external implications. Internal in terms of deposit and savings mobilization, financial performance, staff motivation, loan administrative costs etc while external in terms of availability of funds for loan disbursement, and grants for community organizing (Morduch, 2002)

In terms of accounting principles, financial sustainability can be defined as: Total Income, less Total Cost (i.e. direct and indirect costs) = Surplus (financial sustainability). Financial sustainability can be defined as an organization's net income, i.e., surplus of revenues over expenses); liquidity as the cash available to pay bills and solvency as the relationship between assets and debt or liabilities (Lean, 2001). Long-term financial planning is a vital discipline for creating and maintaining financial sustainability. However, it requires a shift away from short-term perspectives associated with annual budgeting and a shift towards five to ten year

perspectives not normally associated with government financial management (Bansal, 2005). The ability for an organization to sustain itself in a long-term is essential for MFBS to reach their clientele and also to be able to have sufficient funds to take care of operational costs (Wells, 2010).

The Financial Sustainability Theory is applicable in this study in microfinance banks require to remain sustainable even though their primary objective to reach and improve the living standards of poor communities. Thus the managers need to ensure that there is a surplus after deducting the total costs from the total income. Thus financial sustainability requires long-term financial planning on the part of the managers.

### **2.2.3 Free Cash Flow Theory**

As Huseyin (2011) asserts, managers have an incentive to hoard cash to increase the amount of assets under their control and to gain discretionary power over the firm investment decision, (as cited in Jensen, 1986). Having cash available to invest, the manager does not need to raise external funds and to provide capital markets detailed information about the firm's investment projects (Huseyin, 2011). Hence, managers could undertake investments that have a negative impact on shareholders wealth. Managers of firms with poor investment opportunities are expected to hold more cash to ensure the availability of funds to invest in growth projects, even if the NPV of these projects is negative (Huseyin, 2011).

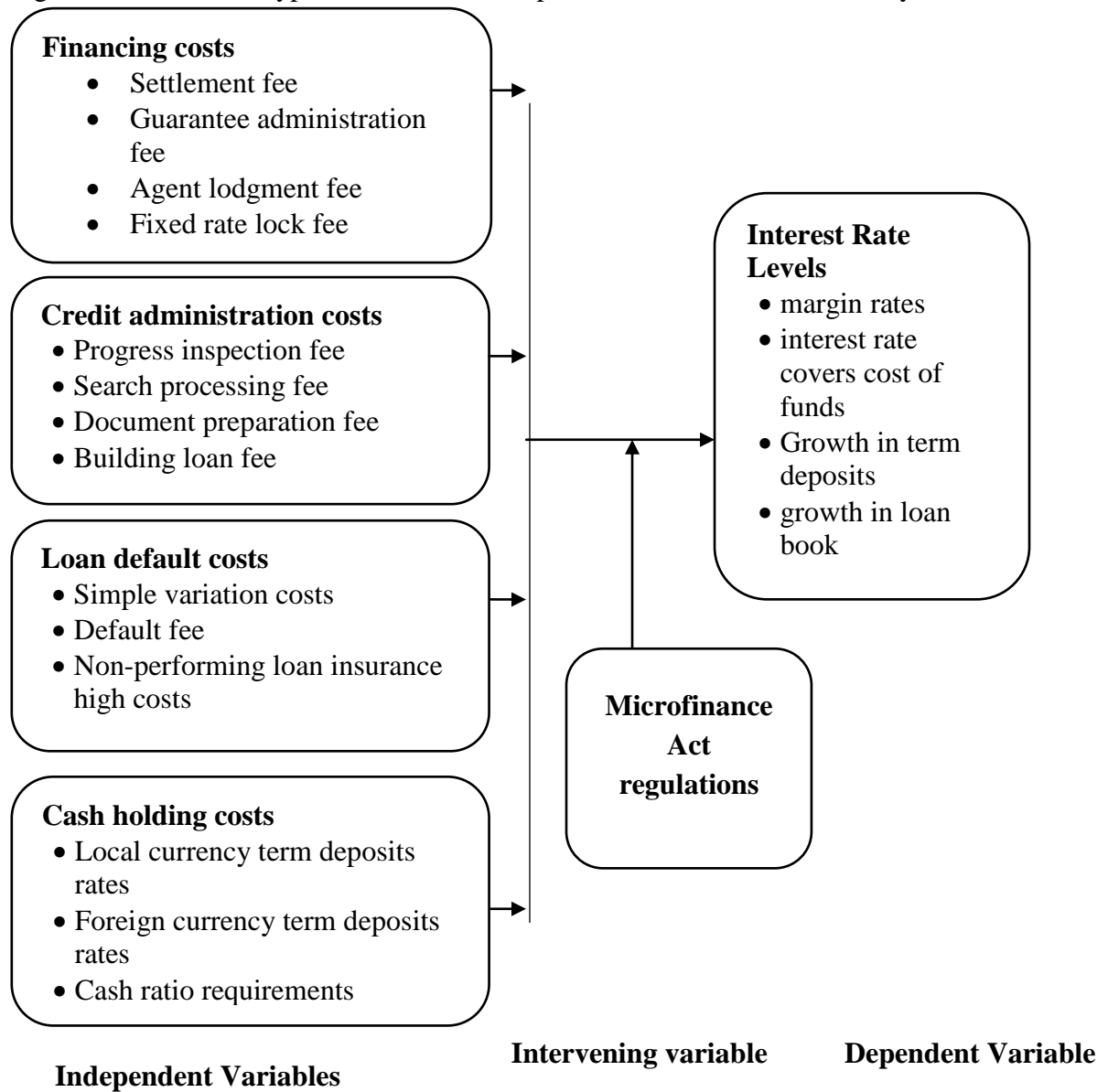
This would lead to destruction of shareholder value and, even if the firm has a large investment program and a low market-to-book ratio. Thus, using the market-to-book ratio as a proxy, it is likely that the relation between investment opportunity set and cash holdings will be negative. This is critical in management of liquidity in the firm and ensuring there is a balance between meeting the current obligation to mitigate liquidity short fall and investing in the interest of shareholders wealth maximization (Huseyin, 2011).

The Free Cash Flow Theory is relevant to the current study because by having cash available to invest, the manager of the deposit taking microfinance bank does not need to raise external funds and to provide capital markets detailed information about the firm's investment projects. Managers (as agents) have the tendency to pursue their

interests whenever these interests are in conflict with the firm’s interests, the excess cash generated by a firm will be used by the managers to pursue their selfish interest at a detriment of the owners. This will occur because the interests of the managers of the deposit taking microfinance banks are centered on financial gain; self-esteem and control.

### 2.3 Conceptual Framework

Figure 2.1 shows the hypothetical relationship between variables under study.



**Figure 2.1: Conceptual Framework**

Financing costs which are the cost of finance were measured through such items as settlement fee charged by lenders to process the settlement, guarantee administration

fee Payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process, Agent lodgement fee payable for an agent of the lender to attend the settlement of microfinance banks' property or lodging the security interests attached to the loan and fixed rate lock fee which is charged when the microfinance banks applies for a fixed rate loan from lenders.

Credit administration costs were measured through; document preparation fee -the cost of preparing the loan documents for new loan or application, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application, progress inspection fee incurred each time microfinance banks' valuer inspects building works in order to recommend that we make a progress payment and is debited to the loan account at the time of the inspection, building loan fee incurred for the additional administration required for a building loan and the administration of progress payments.

Loan default costs were measured items such as; simple variation costs charge for rate renegotiation or loan term extension, default fee charged any time borrowed loans are in arrears for more than 30 days, high insurance costs for non-performing loans.

Cash holding costs were measured through;Local currency term deposit rates,foreign currency term deposit rates, cash reserve ratio requirements held by the central bank of Kenya.

Interest rate levels were measured by;Margin rate set by microfinance bank is acceptability to customers, interest rate set coverage of cost of funds for microfinance banks, loan book growth as a result of prevailing interest rate level, increase in term deposits resulting from existing interest rate level

## **2.4 Empirical Review**

### **2.4.1Financial Costs**

A study by Goonzale (2009) found that the relatively high price Microfinance Institution has to pay for money they borrow contributes substantially to the interest they charge borrowers. In general, it would seem unfair to criticize Microfinance Institution managers much on this score, because even though they can control their own operations, they usually have little control over their rate of borrowing/funding costs. Most of them get funding where they can find it and tend to be price takers rather than price makers when it comes to the interest rates they pay. Increasing



reliance on deposit funding will lower costs over the longer term, as regulators authorize more Microfinance Institution to take savings. However, this option is unavailable to managers of Microfinance Institution if their country does not have the enabling regulation, or if their business is not yet solid enough to meet the hurdle for depository licensing.

Financial costs are generated by various processes, including the costs of searching and collecting relevant information. Indirect costs are caused by frictions in the flow of credit funds, preventing credit markets from reaching efficient market equilibrium (Nalukenge, 2003). According to Polski and Kearney (2001), banking activities generate two types of transaction costs, which are subject to different political and economic influences. They further note that one type of transaction costs, interest expense, reflects the costs of funds for banking activities and the second type, noninterest expense, reflects the costs of information and coordination.

Financing costs which are the cost of finance were measured through such items as settlement fee charged by lenders to process the settlement, guarantee administration fee Payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process, Agent lodgement fee payable for an agent of the lender to attend the settlement of microfinance banks' property or lodging the security interests attached to the loan and fixed rate lock fee which is charged when the microfinance banks applies for a fixed rate loan from lenders.

#### **2.4.2 Credit Administration Costs**

The pricing of microfinance services like any other good or service is a function of credit administration costs. Credit administrative costs include those incurred in processing loan applications, educating or training of clients and monitoring for loan repayment. The above makes it imperative to reach the conclusion that the absolute transaction cost per head of a poor person is more expensive than a client of a formal financial institution. Campion et al, (2010) found that the advent of the global economic and financial crisis in the last quarter of 2008 had further constrained liquidity in the region. It's further highlighted that administrative costs are those, which are directly attributable to the processing, delivering and administering of loans while coordination costs are those resources a financial institution dedicates to ensuring that clients adhere to terms stipulated in loan contracts (Nalukenge, 2003).

Microfinance Institutions continues to grow, but at more modest rates, since their cost of funds has increased and many were experiencing difficulties in accessing capital at any price. At the same time, the number of nonperforming loans was rising, and remittances from expatriate workers had fallen. The latter is worrisome because some Microfinance Institution had been generating substantial fee income from handling these remittances, and the recipients had often used the money toward loan repayment. The study found that most Microfinance Institutions were coping with the crisis, focusing on improving their internal procedures and operational efficiency. Meanwhile, however, many governments in the region were found to have announced new or expanded subsidized credit programs targeting the low-income population. He concluded that many of the Microfinance Institution that participates in these programs has to adhere to fixed intermediation margins, which are sometimes insufficient to cover operating costs.

Received wisdom has long been that, lending to poor households is not worth it, due to too high costs, too great risks, too low saving propensities, and too few households capable of putting up collateral (Morduch 1999). The likely consequences of these adverse characteristics have been dealt with through alternative mechanisms such as group lending and joint liability, forced savings and small and regular loans and repayment. These mechanisms seem to prove that microfinance can be sustainable. In spite of the ingenuity of delegated screening, monitoring and enforcement, credit administration costs are up the roof and used as the main argument for high interest rates. Obvious reasons are the other strategies of microfinance operations including small amounts of loans and forced savings, remote settlements and provision of non-financial services.

Sindani (2012) in her study on Effectiveness of Credit Management System on Loan Performance: Empirical Evidence from Micro Finance Sector in Kenya found out that Credit administration costs formulated by the microfinance institutions do affect loan performance and interest rate; the involvement of credit officers and customers in formulating credit terms affects loan performance. Interest rates charged had a negative effect on the performance of the loans, the higher the interest rates the lower the loan performance. Credit risk controls adopted by microfinance institutions have an effect on loan performance, credit insurance, signing of covenants with customers, diversification of loans, credit rating of customers, reports on financial conditions, refrain from further borrowing had an effect on loan performance. Collection policies

adopted by microfinance institution had an effect on loan performance, stringent policy had a great impact on loan performance, and the lenient policy had an effect but was not as great as that of stringent policy.

Credit administration costs were measured through; document preparation fee -the cost of preparing the loan documents for new loan or application, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application, progress inspection fee incurred each time microfinance banks' valuer inspects building works in order to recommend that we make a progress payment and is debited to the loan account at the time of the inspection, building loan fee incurred for the additional administration required for a building loan and the administration of progress payments.

### **2.4.3 Loan Default Costs**

Microfinance Institutions (MFBs) currently provide financial services to an estimated 15 per cent of the country's total population as compared with 10 per cent for the commercial banking sector (Obuobi and Polio, 2010). Nonetheless some of the loans given out by the lending institutions unfortunately are not paid back and eventually result in bad debts with adverse consequences for the overall financial performance of the institutions. The issue of loan defaults becoming an increasing problem that threatens the sustainability of microfinance institutions. The causes of the problem are multi-dimensional and non-uniform among different literatures. Unsettled loans are always a source of misery for lenders because if a microfinance has too much of it on its balance sheet, it can adversely affect its operations in terms of liquidity, profitability, debt- servicing capacity, Lending capacity and ability to raise additional capital.

A loan is delinquent when a payment is late (CGAP, 1999). A delinquent loan becomes a defaulted loan when the chance of recovery becomes minimal. Delinquency is measured because it indicates an increased risk of loss, warnings of operational problems, and may help to predict how much of the portfolio will eventually be lost because it never gets repaid. There are three broad types of delinquency indicators: collection rates which measures amounts actually paid against amounts that have fallen due; arrears rates measures overdue amounts against total loan amounts; and portfolio at risk rates which measures the outstanding balance of

loans that are not being paid on time against the outstanding balance of total loans (CGAP, 1999).

Default occurs when a debtor has not met his or her legal obligations according to the debt contract. For example a debtor has not made a scheduled payment, or has violated a loan covenant (condition) of the debt contract (Ameyaw-Amankwah, 2011). A default is the failure to pay back a loan. Default may occur if the debtor is either unwilling or unable to pay their debt. A loan default occurs when the borrower does not make required payments or in some other way does not comply with the terms of a loan (Murray, 2011).

Kazuhito, and Yukiko, (2011) state that one of the underlying causes of Japan's prolonged economic stagnation is the nonperforming or bad loan problem. They explain that some of the loans made to companies and industries by financial institutions during the bubble era became non-performing when the bubble burst. This delayed structural reforms and prevented the financial intermediary system from functioning properly. Most of the defaults arise from poor management procedures, loan diversion and unwillingness to repay loans which makes financial institutions adjust their interest rates to cushion themselves against default risks (Kohansal & Mansoori, 2009). According to them a number of factors can cause loan defaults some of which are: Interest rate ceilings usually imposed by the government; monopoly power in credit markets often exercised by informal lenders; large transaction costs incurred by borrowers in applying for loans; and moral hazard problems.

The holders of loans can make an allowance for a normal share of non-performance in the form of bad loan provisions, or they may spread the risk by taking out insurance. Provisions for bad debt' is often a regulatory requirement for bank-led MFBs but other types of MFBs realize the importance of creating an emergency fund to provide a cushion against the risk of loan defaults. As a result, 'portfolio losses' account for 6% of interest rates charged by successful microfinance providers, according to data provided by Microfinance Information Exchange Fehmeen, 2010).

The sustainability of microfinance institutions depends largely on their ability to collect their loans as efficiently and effectively as possible. In other words to be financially viable or sustainable, microfinance institutions must ensure high portfolio quality based on 100% repayment, or at worst low delinquency/default, cost recovery and efficient lending (Addae-Korankye, 2014). Addae-Korankye (2014) further reports in a study in Ghana involving 25 MFBs that 60% of the MFBs have their

default rates more than the internationally acceptable rate of 3%. This situation poses serious threats to the operations and sustainability of these MFBs which are the financial backbone of Micro, Small and Medium Enterprises in Ghana.

Loan default costs were measured items such as; simple variation costs charge for rate renegotiation or loan term extension, default fee charged any time borrowed loans are in arrears for more than 30 days, high insurance costs for non-performing loans.

#### **2.4.4 Cash Holding Costs**

Cash management is the process of planning and controlling cash flows into and out of business, cash flows within the business, and cash balances held by a business at a point in time (Pandey, 2004). Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little (Ross, 2008). In addition, as stressed by Atrill (2006) there is need for careful planning and monitoring of cash flows over time to determine the optimal cash to hold. Kwame (2007) established that the setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash.

Receivables Management means planning, organizing, directing and controlling of receivables. It deals with a shortened debtor's collection period, low levels of bad debts and a sound credit policy. Sound credit policy often improves the businesses' ability to attract new customers and accordingly increase financial performance. Therefore, there is need for a sound credit policy that will ensure that CDF funded projects' value is optimized (Ross, 2008). Costs of cash discounts, losses of bad debts and costs of managing credit and credit collections constitute the carrying costs associated with granting a credit which increase when the amount of receivables granted are increased. Lost sales resulting from not granting credit constitute the opportunity cost, which decrease when the amounts of receivables are increased. Provision of trade credit is normally used by businesses as a marketing strategy to expand or maintain sales (Pandey, 2004).

Firms that are efficient in receivables management determine their optimal credit, which minimizes the total costs of granting credit (Ross 2008). As observed by (Michalski 2007) an increase in the level of accounts receivables in a firm increases both the fund and the costs of holding and managing accounts receivables and both lead to a decrease in the value of the firm. Lazaridis and Dimitrios (2005) found that

firms that pursue an optimal level of receivables increase their profitability. Juan & Martinez (2002) emphasized that firms can create value by reducing the number of days of accounts receivables and this confirmed the finding of Deloof (2003) that established that the length of receivables collection period has a negative effect on a firm's performance. Sushma & Bhupesh (2007) also affirm that, putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms. Cash holding costs were measured through; Local currency term deposit rates, foreign currency term deposit rates, cash reserve ratio requirements held by the central bank of Kenya.

#### **2.4.5 Microfinance Act (2013)**

Regulatory supervision is an important part of the formal banking process. As microfinance institutions have developed and multiplied, they have become more closely regulated, which has allowed many of them to evolve into more traditional banks. But there are concerns over microfinance regulation, as complying with regulatory can be costly, particularly for smaller institutions. Even in the United States, the cost of complying with regulation for commercial banks is expensive. By one estimate the cost of compliance for commercial banks in the US is between 12 and 13 percent of banks non-interest expenditures (Elliehausen 1998).

Microfinance regulation includes both prudential and non-prudential regulation. Prudential regulation is particularly important in microfinance because the vast majority of clients do not have an easy path for self-advocacy. Non-prudential regulation involves the regulatory policies governing the day-to-day functions of banks' operations. Some researchers have speculated that regulatory obstacles have made it difficult for microfinance organizations to offer savings products, since accepting deposits means that they would be facing strict regulation unlike anything they faced when they were simply providing loans (Christen et al 2012).

The primary concern regarding regulation and supervision is its effect on profitability, and the indirect effects that a decrease in profitability has on the institution's business model. Several authors have speculated that increases in supervision affect the outreach of an institution. If the profitability of a MFIs decreases because of increased supervision, the institution decreases outreach in order to maintain its profitability.

Most recently, Cull et al (2011) examined 245 MFIs in 49 different countries and conclude that supervision has a negative effect on outreach.

In Kenya, the Microfinance (Amendment) Act of 2013 regulates microfinance companies licensed to carry on micro finance business by accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice. The Microfinance Regulations issued therein set out the legal, regulatory and supervisory framework. The principal object of the Microfinance Act is to regulate the establishment, business and operations of microfinance institutions in Kenya through licensing and supervision. The Act enables Microfinance Banks licensed by the Central Bank of Kenya to mobilize savings from the general public, thus promoting competition, efficiency and access (Microfinance (Amendment) Act, 2013).

#### **2.4.6 Interest rates level**

A large portion of an MFI's funds are sourced from commercial banks and the cost of these funds is the market interest rate. In fact, this financial expense, combined with the fees paid on such loans and deposits taken from the public, account for 23% of the interest rate charged by profitable microfinance providers (2010 MIX Publication). The study found that personnel and administrative expenses form the largest component (62%) of interest rates charged by sustainable microfinance providers, as per the report mentioned earlier. High transaction costs are associated with disseminating and recovering a large number of small-sized loans, often to clients in geographically dispersed areas with poor infrastructure and security conditions

According to a CGAP (2013) study An MFI will need to realize on its loans, if it wants to fund its growth primarily with commercial funds at some point in the future. Pricing Formula: The annualized effective interest rate (R) charged on loans will be a function of five elements, each expressed as a percentage of average outstanding loan portfolio: administrative expenses (AE), loan losses (LL), the cost of funds (CF), the desired capitalization rate (K), and investment income (II):

$$R = \frac{AE + LL + CF + K - II}{1 - LL}$$

Each variable in this equation should be expressed as a decimal fraction: thus, administrative expenses of 200,000 on an average loan portfolio of 800,000 would yield a value of .25 for the AE rate. All calculations should be done in local currency, except in the unusual case where an MFI quotes its interest rates in foreign currency.

The regional distribution indicates that rates vary more widely in Africa and Latin America than in other regions. Also, the rates are substantially lower in South Asia than elsewhere: the relative cost of hiring staff tends to be lower there, and at least in Bangladesh the political climate and the strong social orientation of the industry have probably led managers to focus more on keeping rates low (CGAP, 2013).

Campion et al, (2010) carried out a study to examine microfinance interest rates and their determinants in order to understand how these rates might be lowered. The study used financial data from 29 institutions in seven countries over a period of four years and explored patterns of cost and efficiency in Microfinance Institutions. The study found that improved operational efficiency comes with increased competition and institutional age, and also their regression analysis shows that there are Microfinance Institutions who charge low interest rates and still make profit.

Cotler, (2010) carried out a study to find what drives the lending interest rates in the Micro finance sector. Using data of Microfinance Institutions from Asia, Africa and America of 1299 institutions for the period 2000 to 2008 and using a set of regression equations, he found that the lending interest rate is negatively correlated with the productivity of financial institutions and with the number of years these Institutions have been operating and positively correlated with the funding costs. The productivity of the micro financial institutions could be increased by either use of technology or by lowering the cost of funding.

Locally, Ndung'u and Ngugi (2000) observed that large spreads occur in developing countries due to high operating costs, financial taxation or repression, lack of a competitive financial/banking sector and macroeconomic instability, that is, risks in the financial sector are high.

Interest rate levels were measured by; Margin rate set by microfinance bank is acceptability to customers, interest rate set coverage of cost of funds for microfinance banks, loan book growth as a result of prevailing interest rate level, increase in term deposits resulting from existing interest rate level



## **2.5 Critique of Literature Review**

According to Nalukenge (2003) financial costs are generated by various processes, including the costs of searching and collecting relevant information. Indirect costs are caused by frictions in the flow of credit funds, preventing credit markets from reaching efficient market equilibrium. Polski and Kearney (2001) noted that one type of transaction costs, interest expense, reflects the costs of funds for banking activities and the second type, noninterest expense, reflects the costs of information and coordination. The current study seeks to determine how financial costs affect interest rates on loans in MFBs in Nakuru County, Kenya.

According to Ross (2008), efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. This was also established by Kwame (2007) who found that the setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash. The current study seeks to establish whether cash holding costs have a statistically significant effect on interest rates on loans in MFBs in Nakuru County, Kenya.

The study by Sindani (2012) found out that Credit terms formulated by the microfinance institutions do affect loan performance; the involvement of credit officers and customers in formulating credit terms affects loan performance. Interest rates charged had a negative effect on the performance of the loans, the higher the interest rates the lower the loan performance. Credit risk controls adopted by microfinance institutions have an effect on loan performance, credit insurance, signing of covenants with customers, diversification of loans, credit rating of customers, reports on financial conditions, refrain from further borrowing had an effect on loan performance. The current study seeks to determine how credit administration costs influence interest rates on loans in MFBs in Nakuru County, Kenya.

## **2.6 Research Gaps**

The study by Gonzalez, and Narain (2010) found that the countries with the lowest interest rates tend to have low operating costs. Such is the case in Ethiopia (where operating costs account for 9.4 percent of the gross loan portfolio) and Sri Lanka (7.7 percent). The current study will seek to establish the Influence of cost structure and interest rates level in microfinance banks in Nakuru County. The study by Nakulenge

(2003) found that financial costs are generated by various processes, including the costs of searching and collecting relevant information. Indirect costs are caused by frictions in the flow of credit funds, preventing credit markets from reaching efficient market equilibrium. Kazuhito, and Yukiko, (2011) found that one of the underlying causes of Japan's prolonged economic stagnation is the non-performing or bad loan problem. Kwame (2007) established that the setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash. The above studies were done in other countries and not in Kenya. The current study aims at investigating the effect of financial costs, credit administration costs, loan default costs, and cash holding on level of interest rates focusing on microfinance banks in Nakuru County, Kenya.

## **2.7 Summary of Literature Review**

On the theoretical review, the study was based on the Conventional Economic Efficiency Theory, Financial Sustainability Theory, and the Free Cash Flow Theory. The Conventional Economic Efficiency Theory stipulates that companies should achieve their output at the lowest possible cost per unit produced. The Conventional Economic Efficiency Theory is relevant to this study since it provides a basic framework to help understand the various factors that are associated with existing operating costs. The Financial Sustainability Theory is applicable in this study in microfinance banks require to remain sustainable even though their primary objective to reach and improve the living standards of poor communities. The Free Cash Flow Theory is relevant to the current study because by having cash available to invest, the manager of the deposit taking microfinance bank does not need to raise external funds and to provide capital markets detailed information about the firm's investment projects.

In the critique of literature review, Nalukenge (2003) found that financial costs are generated by various processes, including the costs of searching and collecting relevant information. Polski and Kearney (2001) found that interest expense reflects the costs of funds for banking activities and the second type, noninterest expense, reflects the costs of information and coordination. The current study seeks to determine how financial costs affect interest rates on loans in MFBs in Nakuru County, Kenya.

According to Ross (2008) and Kwame (2007) the setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash. The current study seeks to establish whether cash holding costs have a statistically significant effect on interest rates on loans in MFBs in Nakuru County, Kenya. Locally, the study by Sindani (2012) found out that Credit terms formulated by the microfinance institutions do affect loan performance; the involvement of credit officers and customers in formulating credit terms affects loan performance. Interest rates charged had a negative effect on the performance of the loans, the higher the interest rates the lower the loan performance. The current study seeks to determine how credit administration costs influence interest rates on loans in MFBs in Nakuru County, Kenya.

On the research gaps from the literature review, it is seen that the study by Gonzalez, and Narain (2010) found that the countries with the lowest interest rates such as Ethiopia tend to have low operating costs. The current study will seek to establish the Influence of cost structure and interest rates level in microfinance banks in Nakuru County. The study by Nakulenge (2003) found that financial costs are generated by various processes, including the costs of searching and collecting relevant information. Indirect costs are caused by frictions in the flow of credit funds, preventing credit markets from reaching efficient market equilibrium. The above studies were done in other countries and not in Kenya. The current study aims at investigating the effect of financial costs, credit administration costs, loan default costs, and cash holding on level of interest rates focusing on microfinance banks in Nakuru County, Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The section outlines the different aspects of methodology that has been used in the study including the research design, the target population, sample size and sampling procedures, research instruments, instrument validity, instrument reliability, data collection procedures and data analysis techniques.

#### **3.2 Research Design**

The study used survey research design. A survey research design involves the selection of a sample of respondents and administering questionnaires or conducting interviews to gather information on variables of interest (Sekeran, 2003). In a survey design, information was collected from respondents about their experiences and opinions about a particular topic under study in order to generalize the findings to the population that the sample was intended to represent (Orodho, 2005). This design was the most appropriate for obtaining factual and attitudinal information or for research questions about self-reported beliefs, opinion, characteristics and present or past behaviors (David & Sutton, 2004). Since this study seeks to obtain descriptive and self-reported information the descriptive survey design was appropriate. The survey allowed the researcher to expose the respondents to a set of standardized questions to allow comparison.

#### **3.3 Target Population**

There are 4 registered MFBs with 17 branching units operating in Nakuru County (CBK 2017) – see Appendix IV. The study therefore, targeted members of the finance, operations, credit and management departments of the MFBs in Nakuru County. From each department, the management and two staff members were targeted bringing the entire target population to 127 staff made up of 41 finance staff, 44 operations staff, and 42 credit officers. The management members were targeted because they are responsible for the overall planning including the implementation of governance decisions in their MFBs. The population is shown in the sampling frame in Table 3.1 below:

**Table 3.1: Target Population**

MFB	Target Population per Department			
	Finance	Operations	Credit	Total
FauluNaivasha	3	3	2	8
FauluMolo	2	2	2	6
Faulu Nakuru	3	3	2	8
FauluNjoro	2	2	2	6
Faulu Olenguruone	1	2	2	5
KWFT Gilgil	1	2	2	5
KWFT Molo	2	2	2	6
KWFT Naivasha 1	3	3	2	8
KWFT Naivasha 2	3	3	3	9
KWFT Nakuru 1	2	3	3	8
KWFT Nakuru 2	3	3	3	9
KWFT Nakuru 3	3	3	4	10
KWFT Njoro	3	3	2	8
Rafiki Nakuru	3	3	3	9
SMEP Molo	2	2	2	6
SMEP Naivasha	3	3	3	9
SMEP Nakuru	2	2	3	731
<b>Total</b>	<b>41</b>	<b>44</b>	<b>42</b>	<b>127</b>

### 3.4 Sample Size and Sampling Procedures

The sample size was determined using the following sampling techniques

#### 3.4.1 Sampling Procedure

The study used stratified random sampling to sample the population. Stratified random sampling is a procedure in which the elements of the target population are classified into different groups or strata from where they are randomly sampled proportionately. Stratified sampling was used to categorize the microfinance banks into four strata while random sampling was employed to determine the final

respondents that were interviewed based on years of experience they had served in their respective firms.

### 3.4.2 Sample Size

Sample size refers to the number of items to be selected for observations in order to obtain accurate information on the universe (Oso & Onen, 2008). To select the desired sample size from the total population, the formula by Nassiuma (2000) was used as shown below:

$$n = \frac{Nc_v^2}{c_v^2 + (N-1)e^2}$$

Where n= Sample size

N= Population

C<sub>v</sub>= Coefficient of variation (take 0.5)

e = Tolerance at desired level of confidence, take 0.05 at 95% confidence level

Substituting;  $n = \frac{127 \times 0.5^2}{0.5^2 + (127-1)0.05^2}$

$$n = 56$$

**Table 3.2: Sample Size**

<b>Staff (stratas) Category</b>	<b>Population per stratum</b>
Faulu	33
KWFT	63
Rafiki	9
SMEP	22
<b>Total</b>	<b>127</b>

Thus the sample size was 56 respondents

### 3.5 Research Instruments

In this study questionnaires were used and the procedure was hand delivery and collected later on. The type of questionnaires given out was closed ended questionnaires to ensure that questions given were relevant and also allowed respondents enough time (Mugenda and Mugenda, 2003). Enough spaces were

provided in order to include all the information. Also after interviewing a section of them were filled in the information as a questionnaire as another source of information. This method was suitable and effective to the study because it creates confidentiality.

### **3.6 Pilot Testing**

To ensure validity and reliability of the research instruments, the questionnaires were pilot-tested in microfinance banks in Bomet County where sample questionnaires were distributed to a small population of about 3 MFBSin 5 branches, management and staff in the area. These respondents were not included in the final study. Modifications, additional questions and other shortcomings found in the questions were addressed.

#### **3.6.1 Validity Test**

The study opted for the Content Validity method of instrument validation. Content validity which is sometimes called logical or rational validity and face validity - which is personal judgment on the respondents' capability in understanding the concepts of the instrument and whether it addresses the research problem - of the research instruments, was established in order to make sure that they reflect the concepts of devolution and service delivery in question. First, the researcher went through the instruments and compared them with the set objectives and ensured that they contain all the information to answer the set questions and address the objectives. Secondly, expert judgment of the research supervisor was used to test the validity of the research instruments

#### **3.6.2 Reliability Test**

Reliability is the measure of degree to which a research instrument yields consistent results after repeated trials (Kothari, 2003). To test reliability the study employed the internal consistency method which is a correlation method that measures the reliability of alternate items in the questionnaire based on responses from the pilot study. Cronbach's Alpha was calculated and used as a measure of internal consistency. The Cronbach's Alpha is a statistical measure that is generally used as a measure of internal consistence or reliability of a psychometric instrument. It measures how well a set of variables or items measure a single one dimensional aspect of an individual. The result from the pilot study was subjected to the Cronbach's reliability test for internal consistency. According to Fraenkel & Wallen

(2000), a Cronbach reliability coefficient  $\alpha = 0.60$  or more indicates that the instrument is highly reliable and, therefore, usable for the study. Subsequently, modifications, additional questions and any shortcomings that were found in the questions were duly corrected at this stage.

### **3.7 Data Collection and Procedures**

To ensure easy access to the study respondents, an introduction letter was acquired from Jomo Kenyatta University of Agriculture and Technology which authorized the researcher to collect the data from the microfinance banks. The questionnaire had a combination of questions that was in written form that was given to the respondent either in person or via mail. According to Robson (2002) in his study, he says that questionnaires are a form of survey that gives a scientific reassurance ring of confidence. The questionnaires were distributed to respondents using drop and pick later strategy in which respondents were allowed one week to fill in before they were collected for analysis.

### **3.8 Data Analysis and Presentation**

The data was analyzed using both descriptive and inferential statistical methods. Descriptive analysis was done using means and standard deviations to describe the basic characteristics of the population. Inferential statistics involves the use of Pearson's Product Moment correlation and multiple regression models to determine the nature of the relationship between the variables. Data obtained from the questionnaires was cleaned and edited before being coded and subjected to further analysis. The Likert scales in closed ended questions in the questionnaires was converted to numerical codes and was scored on 1-5 point scale in order of magnitude of the construct being measured, then be entered into the Statistical Package for Social Sciences (SPSS) version 23.0 computer program. The following multiple regression model was specified as; Research hypotheses were tested at 5% significance level using regression analysis outputs.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon;$$

Where;

Y - Level of interest rates in MFBs

$\beta_0$  - Constant

$X_1$  - Financial costs



$X_2$  - Credit administration costs

$X_3$  - Loan default costs

$X_4$  - Cash holding costs

$\beta_1, \beta_2, \beta_3$  &  $\beta_4$ - Regression coefficients of the independent variables respectively

$\varepsilon$  - Error term

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the results of data analysis, their interpretation and discussions. The presentation of the results is done according to the objectives of the study. The chapter begins with the demographic characteristics of the respondents such as age, educational level, tenure and gender. Descriptive statistics for the items in the instrument are also presented using means for each item to define the relative opinion of the respondents for that particular item. The results from the correlations and the regression analysis are also presented.

#### 4.2 Response Rate

The researcher sent out a total of 56 questionnaires to the staff of MFBs in Nakuru Town. Out of the 56 questionnaires, 42 were duly returned in time for data analysis representing a response rate of 75%. According to Mugenda and Mugenda (2003), 50% and above respondents' response rate is appropriate in conclusion of research findings. Response rate obtained was therefore appropriate in achieving study's research objectives.

#### 4.3 General Characteristic of the Respondents

Frequency distributions were used to indicate variations of respondents based on age, gender, tenure and length of service. Descriptive statistics aided the study in illustrating the characteristics of the respondents and nature of the data in line with the study objectives.

##### 4.3.1 Gender of the Respondents

The study sought to establish gender of the respondents.

Findings related to the gender of the respondents by gender are presented on Table 4.1

**Table 4.1 Gender of the Respondents**

Gender	Frequency	Percent
Male	25	59.5
Female	17	40.5
Total	42	100.0

The gender results indicate that 25 (59.5%) of the respondents were male while 17 (40.5%) were female. This means that there is gender parity in the MFBs in Nakuru County with regard to their employees. Thus the responses would be balanced in terms of the perspectives from personalities of both genders.

#### 4.3.2 Age of the Respondents

The study sought to establish age of the respondents.

**Table 4.2: Age of the Respondents**

Age category	Frequency	Percent
Between 18 and 30	9	21.4
Between 31 and 40	20	47.6
Between 41 and 50	8	19.1
51 and above	5	11.9
Total	42	100.0

The results on age show that 9 (21.4%) of the respondents were aged between 18 and 30 years, 20 (47.6%) were aged between 31 and 40 years, 8 (19.1%) were aged between 41 and 50 years, and 5 (11.9%) were aged 51 years and above. The results indicate majority of the respondents were aged 31 years and above. Thus they were likely to be experienced enough to be able to give proper information regarding the objectives of the study.

#### 4.3.3 Level of Education

The study sought to establish level of education of the respondents.

**Table 4.3: Level of Education**

	Frequency	Percent
College/University	42	100.0

All (100%) of the respondents indicated that they had either a college or university level of education. This meant that they were competent to respond to the questions in the research instrument as per the study objectives.

#### 4.3.4 Respondents' Departments

The study sought to establish number of respondents who worked in various departments.

**Table 4.4: Respondents' Departments**

	Frequency	Percent
Finance	10	23.8
Operations	14	33.3
Credit	18	42.9
Total	42	100.0

The results on the respondents' departments show that 10 (23.8%) of the respondents were in finance department, 14 (33.3%) in operations, and 18 (42.9%) in credit department. Thus the three departments were fairly represented in the study so as to give a balanced view regarding the study objectives from all of them.

#### 4.4 Reliability

The study sought to ensure that the research scales were reliable. From the pilot test results as shown on table 4.5, the data instrument returned an overall reliability of 0.799 which indicated good reliability. According to Mohsen and Dennick (2011), a reliability coefficient of .70 or higher indicates consistency. This thus enabled the researcher to go ahead with the main data collection exercise.

**Table 4.5: Reliability test results**

Variables	No. of Test Items	Cronbach Alpha
Financial costs	6	.7013
Credit administration costs	6	.7456
Default costs	5	.7552
Cash holding costs	4	.7604
Interest rate level	8	.7136
<b>Overall reliability</b>	<b>29</b>	<b>0.799</b>

## 4.5 Descriptive Statistics and Discussions

In this section the descriptive statistics for study variables are analysed discussed.

### 4.5.1 Financial Costs

Respondents were asked to indicate their agreement with the following financial costs statements. Each item had a 5-point Likert-type scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). Table 4.6 presents the results of the responses

**Table 4.6: Descriptive Analysis for Financial Costs**

	5 SA	4 A	3 N	2 D	1 SD	Mean	Standard deviation
Application fee charged by lenders when applying for a new loan or additional funds on the current loan is high	(19.8%)	(47.7%)	(8.3%)	(12.1%)	(12.1%)	3.51	1.075
Settlement fee charged by lenders to process the settlement of the loan is high	(28.8%)	(52.3%)	(12.9%)	(3.0%)	(3.0%)	4.01	0.904
Valuation fee which is the cost of having the security for the loan, valued by a third party is reasonable	(33.3%)	(43.9%)	(15.2%)	(5.3%)	(2.3%)	4.01	0.953
Guarantee Administration fee Payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process is high	(3.1%)	(14.4%)	(54.5%)	(15.9%)	(12.1%)	2.80	0.836
Agent lodgement fee payable for an agent of the lender to attend the settlement of our bank’s property or lodging the security interests attached to the loan is favorable	(3%)	(5.9%)	(3.9%)	(43.1%)	(44.1%)	2.98	0.996
Fixed rate lock fee charged when the bank applies for a fixed rate loan from lenders influences interest rate level set by the bank	(28.8%)	(40.2%)	(11.3%)	(11.4%)	(8.3%)	2.370	1.235

The findings of table 4.6 shows that (67.5%) agreed that application fee charged by lenders when applying for a new loan or additional funds on the current loan was high (mean=3.51, SD=1.275) while 81.1% of respondents agreed that settlement fee charged by lenders to process the settlement of the loan was also high (mean=4.01,SD=0.904). According to 77.2% of the respondents, valuation fee which is the cost of having the security for the loan, valued by a third party is reasonable (mean=4.01, SD=0.953). Most respondents (54.5%) were neutral on whether guarantee administration fee which is payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process was high (mean=2.80, SD=0.836). Agent lodgment fee payable for an agent of the lender to attend the settlement of our microfinance bank's property or lodging the security interests attached to the loan was found to be unfavorable according to 87.2% of the respondents (mean=2.98, SD=0.996). Fixed rate lock fee charged when microfinance banks apply for a fixed rate loan from lenders influences interest rate level setting as agreed by 69% of the respondents (mean= 2.370,SD=1.235). The results indicate that the data was also close to the mean values of indicators since some standard deviations were close to zero. However, there was minimal disparity in respondents' opinions with some of the responses registering standard deviation values greater than 1.

#### **4.5.2 Credit Administration Costs**

Respondents were asked to indicate the extent to which they agreed with credit administration costs measurable indicators. These statements were ranked on a 5-point Likert-type scale, ranging from 'strongly disagree' (1) to 'strongly agree' (5). Table 4.7 presents the results of the analysis.

**Table 4.7: Descriptive Analysis for Credit Administration Costs**

	5 SA	4 A	3 N	2 D	1 SD	Mean	Standard Deviation
Document preparation fee -the cost of preparing the loan documents for new loan or application determines interest rate level	(34.1%)	(47.0%)	(10.6%)	(5.3%)	(3.0%)	4.04	0.968
Search Processing fee incurred for the bank to perform a title search or other searches relating to loan application influences interest rate level	(28.8%)	(50.0%)	(14.4%)	(4.5%)	(2.3%)	3.98	0.908
Building loan fee incurred for the additional administration required for a building loan and the administration of progress payments influences interest rate level	(4.5%)	(12.1%)	(12.9%)	(39.4%)	(31.1%)	2.20	1.142
Progress Inspection Fee incurred each time our Valuer inspects building works in order to recommend that we make a progress payment and is debited to the loan account at the time of the inspection influences interest rate level	(12.1%)	(5.3%)	(0.4%)	(33.0%)	(49.2%)	4.11	0.813
Security registration fee which is the amount payable to the Government Registry where the Security will be registered determines our interest rate level	(6.1%)	(21.2%)	(40.2%)	(16.7%)	(15.8%)	2.85	1.115
Legal fees charged by the appointed external Lawyers for legal advice and representation influences interest rate level	(4.6%)	(17.4%)	(36.4%)	(28.0%)	(13.6%)	2.71	1.052

The findings of table 4.7 indicate that document preparation fee which is the cost of preparing the loan documents for new loan or application determines interest rate level of microfinance banks according to 81.1% of the respondents (mean=4.04, SD=0.968). According to 78.8 % of respondents, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application is a determinant in interest rate setting (mean=3.98, SD=0.908). Search processing costs includes costs that are generated by various processes, including the costs of searching and collecting relevant information (Nalukenge, 2003). However, building loan fee incurred for the additional administration required for a building loan and the

administration of progress payments is not a key determinant in interest rate level setting as indicated by 70.5% of the respondents (mean=2.20, SD=1.142). Progress Inspection Fee incurred each time the microfinance banks' valuer inspects building works in order to recommend that the banks make a progress payment and is debited to the loan account at the time of the inspection does not influence interest rate level according to 82.2% of the respondents (mean=4.11, SD=0.813). 40.2% held neutral opinion on whether security registration fee which is the amount payable to the government registry where the security is registered determines is a key factor in interest rate determination (mean=2.85, SD=1.115). A fair majority of the respondents (41.6%) disagreed that legal fees charged by the appointed external lawyers for legal advice and representation influences interest rate level (mean=2.71, SD=1.052). Although there was disparity in respondents' opinions with some of the responses registering standard deviation values greater than 1, the results also indicate that the data was also close to the indicators' mean values since some standard deviations were close to zero

#### **4.5.3 Loan Default Costs**

Regarding loan default costs, respondents were asked to indicate their agreement with the following statements. Each item had a 5-point Likert-type scale, ranging from 'strongly disagree' (1) to 'strongly agree' (5). Table 4.8 presents the results of the responses



**Table 4.8 Descriptive Analysis for Loan Default Costs**

	5 SA	4 A	3 N	2 D	1 SD	Mean	Standard Deviation
Simple variation costs charge for rate renegotiation or Loan term extension determines the interest rate level	(18.2%)	(48.5%)	(18.9%)	(9.1%)	(5.3%)	3.65	1.048
Bad loans high recovery costs influences the level of interest rate set by the bank	(32.6%)	(48.5%)	(12.1%)	(3.8%)	(3.0%)	4.04	0.936
The loan portfolio at risk influences the level of interest rate set by the bank	(24.2%)	(46.2%)	(12.9%)	(12.2%)	(4.5%)	2.27	1.097
Default fee charged any time borrowed loans are in arrears for more than 30 days influences interest rate level	(23.5%)	(35.9%)	(31.4%)	(5.6%)	(3.6%)	4.81	0.038
Non-performing loans lead to high insurance costs which determines the interest rate level	(6.1%)	(10.7%)	(46.1%)	(24.2%)	(12.9%)	2.82	0.083

The findings of table 4.8 indicate that according to majority of respondents (66.7%), simple variation costs charge for rate renegotiation or loan term extension determines microfinance banks' interest rate level (mean=3.65, SD=1.048). Bad loans associated high recovery costs are key factor influencing level of interest rate set by the microfinance bank according to a larger majority (81.1%) of respondents (mean=4.04, SD=0.936). According 70.4% of the respondents, loan portfolio at risk influences microfinance banks level of interest rate (mean=2.27, SD=1.097). Portfolio losses account for 6% of interest rates charged by successful microfinance providers (Microfinance Information Exchange Fehmeen, 2010). 59.4% of the respondents agreed that default fee charged any time borrowed loans are in arrears for more than 30 days influences interest rate level (mean=4.81, SD=0.038). However, a fair majority of respondents (46.1%) showed neutrality on whether non-performing loans lead to high insurance costs which determines the interest rate level (mean=2.82, SD=0.083). The results indicate that the data was also close to the mean values of indicators since some standard deviations were close to zero. However, there was minimal disparity in respondents' opinions with some of the responses registering standard deviation values greater than 1.

#### 4.5.4 Cash Holding Costs

Respondents were asked to indicate the extent to which they agreed with cash holding costs measurable indicators. These statements were ranked on a 5-point Likert-type scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). Table 4.9 presents the results of the analysis.

**Table 4.9: Descriptive Analysis for Cash Holding Costs**

	5 SA	4 A	3 N	2 D	1 SD	Mean	Standard Deviation
Local currency term deposit rates determines interest rates that are offered	(22.7%)	(59.1%)	(9.8%)	(5.3%)	(3.1%)	3.93	0.901
Foreign currency term deposit Rates determines interest rates that are offered	(6.8%)	(18.2%)	(26.5%)	(34.1%)	(14.4%)	2.69	1.133
Costs incurred in securing cash balances influences interest rate level set	(0.8%)	(4.5%)	(8.3%)	(47.0%)	(39.4%)	1.80	0.833
Cash reserve ratio held by the central bank of Kenya influences the interest rate level	(33.3%)	(10.6%)	(49.2%)	(4.5%)	(2.4%)	4.02	0.941

The findings of table 4.9 indicate 81.8% of the respondents, local currency term deposit rates determines interest rates that are offered (mean=3.93, SD=0.901) while foreign currency term deposit rates were found not to really determines interest rate level of microfinance banks as agreed by a fair majority of respondents 48.5% (mean=2.69, SD=1.133). 86.4% of respondents disagreed that costs incurred in securing cash balances influences interest rate level set by microfinance banks (mean=1.80, SD=0.833). A fair majority of respondents (49.2%) held neutral opinion on whether cash reserve ratio held by the central bank of Kenya influences the interest rate level (mean=4.02, SD=0.941). The results indicate that the data was also close to the mean values of indicators since some standard deviations were close to zero. However, there was minimal disparity in respondents’ opinions with some of the responses registering standard deviation values greater than 1.

#### 4.5.5 Interest Rate Level

Respondents were asked to indicate the extent to which they agreed with credit administration costs measurable indicators. These statements were ranked on a 5-point Likert-type scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5).

Table 4.10 presents the results of the analysis

**Table 4.10: Descriptive Analysis for Interest Rate Level**

	5 SA	4 A	3 N	2 D	1 SD	Mean	Standard deviation
Margin rate set by the microfinance bank is acceptable to many customers	(20.1%)	(7.8%)	(60.7%)	(7.3%)	(4.1%)	3.33	0.081
The interest rate usually covers all the operational costs	(1.6%)	(20.4%)	(20.5%)	(40.4%)	(17.1%)	2.72	0.123
We do make all the necessary loan loss provisioning in our interest rates	(46.0%)	(0.5%)	(40.4%)	(3.6%)	(9.5%)	2.66	0.06
Different interest rates level exists for different clientele and on different products	(33.3%)	(43.9%)	(15.9%)	(4.5%)	(2.3%)	3.03	0.842
The interest rate set usually covers the cost of funds	(6.1%)	(9.8%)	(18.9%)	(25.8%)	(39.4%)	3.65	0.211
The loan book has grown as a result of interest rate level	(8.3%)	(15.2%)	(18.9%)	(40.9%)	(16.7%)	3.42	0.179
Non-performing loans have decreased as a result of regularly adjusted interest rate level	(28.8%)	(9.1%)	(47.7%)	(7.6%)	(6.8%)	3.84	0.131
There has been an increase of term deposits resulting from existing interest rate level	(18.9%)	(10.6%)	(11.4%)	(15.2%)	(43.9%)	3.45	0.256

The findings of table 4.10 indicate that most respondents (60.7%) held a neutral opinion on whether margin rate set by the microfinance bank is acceptable by customers (mean=3.33, SD=0.081). Interest rate charged by microfinance banks do not covers all the operational costs and cost of funds as indicated by 57.5% and 65.2% of the respondents respectively (mean=2.72, SD=0.123, mean=3.65, SD=0.211). A fair

majority of respondents (46.5%) agreed that microfinance banks management make all the necessary loan loss provisioning in their interest rates (mean=2.66, SD=0.06). different interest rates level exists for different clientele and on different products according to 77.2% of respondents (mean=3.03, SD=0.842). 57.6% of respondents disagreed that the loan book had grown as a result of interest rate level (mean=3.42, SD=0.179). a fair majority (47.7%) of respondents held neutral opinion on whether non-performing loans have decreased as a result of regularly adjusted interest rate level as indicated by (mean=3.84, SD=0.131). 59.1% of respondents disagreed that there has been an increase of term deposits resulting from existing interest rate level (mean=3.45, SD=0.256). The results indicate that the data was also close to the mean values of indicators since all standard deviations were close to zero.

#### **4.6 Correlation Analysis**

In this subsection a summary of the correlation analyses is presented. Correlation between variables is a measure of how well the variables are related. It seeks to first determine the degree of interdependence of the variables under study. These results are summarized in Table 4.11.

**Table 4.11: Correlations between the independent and the dependent variables**

		Financial Costs	Credit administration costs	Default costs	Cash holding costs	Interest rates charged on loans in MFBs
Financial Costs	Pearson Correlation	1				
	Sig. (2- tailed)					
	N	42				
Credit administration costs	Pearson Correlation	.076	1			
	Sig. (2- tailed)	.427				
	N	42	42			
Default costs	Pearson Correlation	.045	.321	1		
	Sig. (2- tailed)	.433	.398			
	N	42	42	42		
Cash holding costs	Pearson Correlation	.722	.166	.342	1	
	Sig. (2- tailed)	.454	.187	.401	.000	
	N	42	42	42	42	
Interest rates charged on loans in MFBs	Pearson Correlation	.677*	.724*	.542*	.636**	1
	Sig. (2- tailed)	.000	.000	.000	.001	
	N	42	42	42	42	42

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

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The correlation results shown in Table 4.11 indicate that the associations between the independent variables and the dependent variable were significant at the 95% confidence level. Also, the inter-variable correlations between the independent variables were not strong enough to affect the relationship with the dependent variable; hence, the effects of multicollinearity were minimized. At the 0.05 significance level ( $r= 0.677$ ,  $p<0.05$ ), there is a statistically significant relationship between Financial Costs and Interest rates charged on loans and deposits by microfinance banks. It is thus inferred that Financial Costs predict Interest rates charged on loans and deposits with due to the variables positive non causal

relationship. The analysis also indicates that Credit administration costs has a positive relationship with Interest rates charged on loans and deposits by microfinance banks ( $r=0.724$ ,  $p<0.05$ ). This could be argued to imply that the introduction of Credit administration costs contributes to Interest rates charged on loans where if Credit administration costs were improved Interest rates charged on loans in microfinance banks would improve as result of the strong positive association. The results further indicated that Default costs had a positive relationship with Interest rates charged by microfinance banks ( $r=0.542$ ,  $p<0.05$ ). This could also imply that Default costs contributed to Interest rates charged on loans by microfinance banks, whereby if Default costs were improved Interest rates charged on loans by microfinance banks would as well improve based on the strong positive relationship exhibited by the correlation results. The analysis also indicated that Cash holding costs had a positive relationship with Interest rates charged by microfinance banks ( $r= 0.636$ ,  $p< 0.01$ ). This implies that Cash holding costs contributes to Interest rates charged on loans by microfinance banks whereby if Cash holding costs were improved Interest rates charged would as well improve at strong positive relationship.

#### 4.7 Test of Research Hypotheses

A multiple regression analysis was carried out to establish the joint causal relationship between the independent variables and the dependent variable. The formulated research hypotheses were tested using multiple regression analysis results.

**Table 4.12: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.684 <sup>a</sup>	.467	.455	1.19188

a. Predictors: (Constant), Financial costs, Credit administration costs, Default costs, Cash holding costs.

From table 4.12, it's evident that there strong relationship between the independent variables and the dependent variable ( $R^2=0.467$ ).  $R^2$  of 0.467 indicates that 46.7 % of variation in dependent variable is explained by independent variables that are included in the model.

**Table 4.13 ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression					
	n	24.9376	4	6.2344	4.3886	0.000
	Residual	53.9828	37	1.4206		
	Total	78.9204	41			

a. Dependent Variable: Interest rate level

b. Predictors: (Constant), Financial costs, Credit administration costs, Default costs, Cash holding costs.

From the results on table 4.13, the mean square of the residuals is small (1.4206) compared the mean square of the regression (6.4206). The F-statistics of the regression is also statistically significant proving there is a significant relationship between the predictor variables and the dependent variable ( $F=4.3886, p<0.05$ ). The ANOVA results indicate that the overall model was significant.

**Table 4.14: Multiple Regression analysis coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.486	.376		10.482	.000
Financial costs	.424	.056	.430	3.243	.006
Credit administration costs	.566	.073	.564	4.675	.000
Default costs	.364	.045	.412	3.527	.003
Cash holding costs	.311	.033	.321	2.132	.002

a. Dependent Variable: Interest rates level

From the results on table 4.14 the following regression equation was obtained using the unstandardized beta coefficients. Unstandardized beta coefficients are used in determining how a unit change in independent variable will affect change in the dependent variables.

$$Y = 42.456 + 0.424X_1 + 0.566X_2 + 0.364X_3 + 0.311X_4$$

The regression analysis results table 4.14 further indicates that there exist a statistically significant positive relationship between financial costs and interest rate level charged by microfinance banks ( $\beta = 0.424, p<0.05$ ). Numerically, the 0.424beta coefficient of financial costsvariable implies that for every one additional financial

cost incurred, interest level increases by 0.424. The null hypothesis ( $H_{01}$ ) was thus rejected by accepting the alternative hypothesis that financial costs have significant influence on interest rate level set by microfinance banks. The results are consistent with those of Goonzale (2009) who in his study found that the relatively high price microfinance Institution has to pay for money they borrow contributes substantially to the interest they charge borrowers.

The results indicated a statistically positive relationship between credit administration costs and interest rates level ( $\beta = 0.566$ ,  $p < 0.05$ ). This means that for every one additional credit administration cost incurred, interest rate increases by 0.566. The null hypothesis ( $H_{02}$ ) was thus rejected by accepting the alternative hypothesis that credit administration costs have significant influence on interest rate level set by microfinance banks. Sindani (2012) in her study on Effectiveness of Credit Management System on Loan Performance: found out that Credit administration costs formulated by the microfinance institutions do affect loan performance and interest rate level.

It was also established that there exist a statistically significant positive relationship between loan default costs and interest rates level ( $\beta = 0.364$ ,  $p < 0.05$ ). This means that for every additional default cost incurred, interest rates level increases by 0.364. The null hypothesis ( $H_{03}$ ) was thus rejected by accepting the alternative hypothesis that loan default costs have significant influence on interest rate level set by microfinance banks. Most of the defaults arise from poor management procedures, loan diversion and unwillingness to repay loans which makes financial institutions adjust their interest rates to cushion themselves against default risks (Kohansal & Mansoori, 2009).

Further, It was established that there exist a statistically significant positive relationship between cash holding costs and interest rates level ( $\beta = 0.311$ ,  $p < 0.05$ ). This implies that for any additional cash holding cost incurred interest rates level increases by 0.311. The null hypothesis ( $H_{04}$ ) was thus rejected by accepting the alternative hypothesis that cash holding costs have significant influence on interest rate level set by microfinance banks. Firms that are efficient in cash holding and management determine their optimal credit terms which minimize the total costs of granting credit (Ross, 2008).



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the findings, conclusions and recommendations of the study based on the research objectives.

#### **5.2 Summary of the Findings**

The main objective of the study was to examine influence of cost structure on interest rate level of microfinance banks in Nakuru County, Kenya. The study sought to establish influence of financial costs, credit administration costs, loan default costs and cash holding costs on interest rate level of microfinance banks. Data was collected using questionnaires and analyzed using descriptive and inferential statistics. Findings were presented using frequency tables, percentages and inferential statistics tables while respondents' response rate was 75%.

The first objective of the study was to examine influence of financial costs on interest rates level of microfinance banks. The findings indicate that application fee charged by lenders when applying for a new loan or additional funds on the current loan was high. Most respondents agreed that settlement fee charged by lenders to process the settlement of the loan was also high. Valuation fee which is the cost of having the security for the loan, valued by a third party was found to be reasonable by most respondents. There was neutrality among respondents on whether guarantee administration fee which is payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process was high. Agent lodgment fee payable for an agent of the lender to attend the settlement of our microfinance bank's property or lodging the security interests attached to the loan was found to be unfavorable according to most respondents. Fixed rate lock fee charged when microfinance banks apply for a fixed rate loan from lenders was found to influence interest rate level setting among microfinance banks. There a statistically significant non causal relationship between Financial Costs and Interest rates level of microfinance banks ( $r= 0.677$ ,  $p<0.05$ ). It was established that financial costs have a significant influence on interest rate level set by microfinance banks ( $\beta = 0.424$ ,  $p<0.05$ ).

The second objective of the study was to examine influence of credit administration costson interest rates level of microfinance banks.The research findings indicate that document preparation fee which is the cost of preparing the loan documents for new loan or application determines interest rate level of microfinance banks. According to most of respondents, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application is a determinant in interest rate setting. Building loan fee incurred for the additional administration required for a building loan and the administration of progress payments is not a key determinant in interest rate level setting as indicated by majority of the respondents. Progress inspection fee incurred each time the microfinance banks' valuer inspects building works in order to recommend that the banks make a progress payment and is debited to the loan account at the time of the inspection was found not to influence interest rate level. There was neutrality among respondents on whether security registration fee which is the amount payable to the government registry where the security is registered is a key factor in interest rate determination. Legal fees charged by the appointed external lawyers for legal advice and representation were found not to influence interest rate level of microfinance banks. There a statistically significant non causal relationship between credit administration costs and Interest rates level of microfinance banks ( $r=0.724$ ,  $p<0.05$ ). It was established that credit administration costs have a significant influence on interest rate level set by microfinance banks ( $\beta =0.566$ ,  $p<0.05$ ).

The third objective of the study was to examine influence of loan default costson interest rates level of microfinance banks.According to majority of respondents, simple variation costs charge for rate renegotiation or loan term extension determines microfinance banks' interest rate level. Bad loans associated high recovery costs were reported to be key factors in influencing level of interest rate set by the microfinance bank. According to most respondents, loan portfolio at risk influences microfinance banks level of interest rate. The default fee charged any time borrowed loans are in arrears for more than 30 days influences interest rate level while a fair majority of respondents showed neutrality on whether non-performing loans lead to high insurance costs which determines the interest rate level among microfinance banks. The results further indicated that default costs are positively correlated with interest rates level of microfinance banks ( $r=0.542$ ,  $p<0.05$ ). Further loan default costs had a

statistically positive influence on interest rate level of microfinance banks ( $\beta = 0.364$ ,  $p < 0.05$ ).

The fourth objective of the study was to examine influence of cash holding costson interest rates level of microfinance banks. According to most respondents, local currency term deposit rates determines interest rates that are offered while foreign currency term deposit rates were found not to really determines interest rate level of microfinance banks. Majority of respondents disagreed that costs incurred in securing cash balances influences interest rate level set by microfinance banks while a neutrality opinion was held by majority of respondents on whether cash reserve ratio held by the central bank of Kenya influences the interest rate level. The results further indicated that cash holding costs had are positively correlated with interest rates level of microfinance banks ( $r = 0.636$ ,  $p < 0.01$ ). Further cash holding costs had a statistically positive influence on interest rate level of microfinance banks ( $\beta = 0.311$ ,  $p < 0.05$ ).

### **5.3 Conclusions**

It can be concluded that application fee charged by lenders when applying for a new loan or additional funds on the current loan is high are affects microfinance banks borrowing while settlement fee charged by lenders to process the settlement of the loan was also high. Conclusions can also be made that agent lodgment fee payable for an agent of the lender to attend the settlement of our microfinance bank's property or lodging the security interests attached to the loan is unfavorable. It can be concluded that financial costs have a significant influence on interest rate level of microfinance banks. There exists a positive significant relationship between influence of financial costs and interest rate level of microfinance banks.

It can be concluded that document preparation fee which is the cost of preparing the loan documents for new loan or application, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application influence interest rate level of microfinance banks. It can be concluded that credit administration costs have a significant influence on interest rate level of microfinance banks. There exists a positive significant relationship between influence of credit administration costs and interest rate level of microfinance banks.

It can be concluded that simple variation costs charge for rate renegotiation or loan term extension, default fee, bad loans associated recovery costs were reported to be key factors in influencing level of interest rate set by the microfinance banks. It can be concluded that loan default costs have a significant influence on interest rate level of microfinance banks. There exists a positive significant relationship between influence of loan default costs and interest rate level of microfinance banks.

It can be concluded that local currency term deposit rates are key determinants of interest rates level determination among microfinance banks. However, costs incurred in securing cash balances and foreign currency term deposit rates do not really determine interest rate level of microfinance banks. It can be concluded that cash holding costs have a significant influence on interest rate level of microfinance banks. There exists a positive significant relationship between influence of cash holding costs and interest rate level of microfinance banks.

#### **5.4 Recommendations**

It can be recommended microfinance banks should carefully assess various sources of finance and choose those financiers whose cost of capital is not very high. This will enable microfinance banks to minimize financial costs cost that are related to borrowing including the application fee charged by lenders, settlement fee charged by lenders to process the settlement of the loan and the agent lodgment fee payable for an agent of the lender to attend the settlement of microfinance bank's property.

It was recommended that microfinance banks minimize costs that are related to credit administration such as document preparation fee which is the cost of preparing the loan documents for new loan or application, search Processing fee incurred for the bank to perform a title search or other searches relating to loan application interest rate level of microfinance banks. Reduction of credit administration costs will enhance loan products uptake as a results of reduced prevailing interest rates levels.

It was recommended that microfinance banks should ensure a properly and through scrutiny of customers who wish to take up a credit facility (loan). Through a thorough assessment, delinquency level will be mitigated and thus loan default costs such as bad loans recovery costs, simple variation costs and default fee will be minimized.

It was also recommended that through a through gap analysis where maturity liabilities (local and foreign currency term deposit rates) is matched with maturity of assets (loans), the interest rate level will be competitive thus attracting customers and enhancing existing customers loyalty.

### **5.5 Suggestions for Further Research**

Further studies can be conducted to establish the other factors which affect Interest rates charged on loans in MFBs in Nakuru County apart from the factors used in this study. The study recommends that another study be conducted in Kenya on the relationship between financial costs and economic growth to establish the contributions of financial costs on the growth of the economy.

The study has not considered all microfinance banks in Kenya in its findings. Further research should be conducted widely across the microfinance banks in the country to give more representative results and to reduce any potential bias in the results.

A study can be conducted to determine the benefits and challenges involved in credit administration costs on Interest rates charged on loans in MFBs in Nakuru County, as this was the variable found to be most significant in the current study.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRE

I am a postgraduate student at pursuing a Master of Science Finance degree at JKUAT. I am carrying out a study on **the Influence of Cost Structure on Interest Rate Level in Microfinance Banks in Nakuru County, Kenya**. I, therefore, request for your time to fill this questionnaire which I am using to collect the research data. All your responses and information obtained will be treated with utmost confidentiality and only used for purposes of the study. Please read the instructions for each question before responding

#### INSTRUCTIONS

- I. The questionnaire contains 6 parts: Parts A, B, C, D, E, and F.
- II. Please answer the questions as objectively and honestly as possible
- III. Answer the questions by either inserting a tick [√] on the boxes or filling the blank space.
- IV. Your response will be treated confidentially and used solely for academic purpose.

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#### PART A: BIOGRAPHICAL DATA

Tick where appropriate.

##### 1. Gender

Male  Female

##### 2. Age Group

Between 18 and 30  Between 31 and 40

Between 41 and 50  51 and above

##### 3. Level of Education

Primary School  High School

College / University  Other

##### 4. Experience

Less than 1 year  1 to 3 years

3 to 5 years  over 5 years

##### 5. DEPARTMENTS

FINANCE  OPERATIONS

CREDIT

**PART B: FINANCIAL COSTS**

6. Please indicate how you agree with the following statements on Financial Costs.

Where 5 = strongly agreed; 4 = agreed; 3 = neutral; 2 = disagree; 1 = strongly disagree.

<b>Indicators</b>	<b>SA (5)</b>	<b>A (4)</b>	<b>N (3)</b>	<b>D (2)</b>	<b>SD (1)</b>
Application fee charged by lenders when applying for a new loan or additional funds on the current loan is high					
Settlement fee charged by lenders to process the settlement of the loan is high					
Valuation fee which is the cost of having the security for the loan, valued by a third party is reasonable					
Guarantee Administration fee Payable when the lender accepts a guarantee as security in connection with the loan to cover the additional administration required throughout the loan process is high					
Agent lodgement fee payable for an agent of the lender to attend the settlement of our bank's property or lodging the security interests attached to the loan is favorable					
Fixed rate lock fee charged when the bank applies for a fixed rate loan from lenders influences interest rate level set by the bank					

**PART C: CREDIT ADMINISTRATION COSTS**

7. Please indicate how you agree with the following statements on Credit Administration Costs

Where 5 = strongly agreed; 4 = agreed; 3 = neutral; 2 = disagree; 1 = strongly disagree.

<b>Indicators</b>	<b>SA (5)</b>	<b>A (4)</b>	<b>N (3)</b>	<b>D (2)</b>	<b>SD (1)</b>
Document preparation fee -the cost of preparing the loan documents for new loan or application determines interest rate level					
Search Processing fee incurred for the bank to perform a title search or other searches relating to loan application influences interest rate level					
Building loan fee incurred for the additional administration required for a building loan and the administration of progress payments influences interest rate level					
Progress Inspection Fee incurred each time our Valuer inspects building works in order to recommend that we make a progress payment and is debited to the loan account at the time of the inspection influences interest rate level					
Security registration fee which is the amount payable to the Government Registry where the Security will be registered determines our interest rate level					
Legal fees charged by the appointed external Lawyers for legal advice and representation influences interest rate level					

**PART D: LOAN DEFAULT COSTS**

8. Please indicate how you agree with the following statements on Loan Default Costs.

Where 5 = strongly agreed; 4 = agreed; 3 = neutral; 2 = disagree; 1 = strongly disagree.

<b>Indicators</b>	<b>SA (5)</b>	<b>A (4)</b>	<b>N (3)</b>	<b>D (2)</b>	<b>SD (1)</b>
Simple variation costs charge for rate renegotiation or Loan term extension determines the interest rate level					
Bad loans high recovery costs influences the level of interest rate set by the bank					
The loan portfolio at risk influences the level of interest rate set by the bank					
Default fee charged any time borrowed loans are in arrears for more than 30 days influences interest rate level					
Non-performing loans lead to high insurance costs which determines the interest rate level					

**PART E: Cash Holding Costs**

9. Please indicate how you agree with the following statements on Cash Holding Costs. Where 5 = strongly agreed; 4 = agreed; 3 = neutral; 2 = disagree; 1 = strongly disagree.

<b>Indicators</b>	<b>SA (5)</b>	<b>A (4)</b>	<b>N (3)</b>	<b>D (2)</b>	<b>SD (1)</b>
Local currency term deposit rates determines interest rates that are offered					
Foreign currency term deposit rates determines interest rates that are offered					
Costs incurred in securing cash balances influences interest rate level set					
Cash reserve ratio held by the central bank of Kenya influences the interest rate level					

**PART F: Level of Interest Rates**

10. Please indicate how you agree with the following statements on Level of Interest Rates Where 5 = strongly agreed; 4 = agreed; 3 = neutral; 2 = disagree; 1 = strongly disagree.

<b>Indicators</b>	<b>SA (5)</b>	<b>A (4)</b>	<b>N (3)</b>	<b>D (2)</b>	<b>SD (1)</b>
Margin rate set by microfinance bank is acceptable to many customers					
The interest rate usually covers all the operational costs					
We do make all the necessary loan loss provisioning in our interest rates					
Different interest rates level exists for different clientele					
The interest rate set usually covers the cost of funds					
The loan book has grown as a result of interest rate level					
Non- performing loans have decreased as a result of regularly adjusted interest rate level					
There has been an increase of term deposits resulting from existing interest rate level					

THANK YOU

## **APPENDIX II: List of MFIs in Kenya and in Nakuru County**

### **List of MFIs in Kenya**

Caritas Microfinance Bank Ltd

Century Microfinance Bank Ltd

Choice Microfinance Bank Ltd

Daraja Microfinance Bank Ltd

Faulu Microfinance Bank Ltd

Kenya Women Microfinance Bank Ltd

Maisha Microfinance Bank Ltd

Rafiki Microfinance Bank Ltd

Remu Microfinance Bank Ltd

SMEP Microfinance Bank Ltd

Sumac Microfinance Bank Ltd

U & I Microfinance Bank Ltd

Uwezo Microfinance Bank Ltd

### **List of MFBs in Nakuru County**

Faulu Microfinance Bank Ltd

Kenya Women Microfinance Bank Ltd

Rafiki Microfinance Bank Ltd

SMEP Microfinance Bank Ltd