

APPROVAL FORM

The undersigned certify that they have supervised the student **Archiford Warikandwa**'s dissertation entitled: "**The effects of interest rate regulation on sustainability of microfinance institutions in Zimbabwe,**" submitted in Partial fulfillment of the requirements of the Bachelor of Commerce in Banking and Finance Honours Degree at Midlands State University.

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RELEASE FORM

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DISSERTATION TITLE: THE EFFECTS OF INTEREST RATE
REGULATION ON SUSTAINABILITY OF
MICROFINANCE INSTITUTIONS IN
ZIMBABWE.

DEGREE TITLE: Bachelor of Commerce in Banking and Finance
Honours Degree

YEAR THIS DEGREE GRANTED: MAY 2018

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DEDICATION

Dedication with love to my parents and family. Thank you very much for your love, advise, encouragement and support.

ACKNOWLEDGMENTS

If it wasn't for the battle, they wouldn't be a victory: it is with gratitude that I would like to thank the Lord Almighty for his grace and sustenance that has enabled me to come to this end. Also I would like to express my profound gratitude to Mr. J.T Mabonga for his aid in my project: his tireless effort, constructive criticism, unending attention and pressure he exerted on me in preparation of myself for tougher world I will be exposed to soon. I also feel indebted to my colleagues for inspiring me thus I extend my appreciation to them. My family wouldn't go unmentioned as they were my pillar of strength, I am grateful for the support they gave me, from financial to social.

God richly bless you all!

ABSTRACT

Microfinance institutions services have continued to play a vital role in Zimbabwean economy. It is viewed as the provision of financial services to the poor and low income group. Microfinance Institutions in Zimbabwe have gained wide recognition since 1990's for the role they play in providing financial services to low income households, and their contribution to poverty alleviation. Despite this crucial role, the interest rate charged by the MFIs in Zimbabwe have been relatively high ranging between 20%-30%. This has raised concerns with policymakers on how MFIs can fight poverty and fulfil their social mandate while charging borrowers interest rates that are higher than those offered by other financial institutions such as traditional commercial banks and SACCOs. The main objective of the study was to determine the effects of interest rate regulation and sustainability of MFIs in Zimbabwe. The study was guided by liquidity preference theory. The study used cross-sectional descriptive survey research design. The target population was 60 MFIs operating in Zimbabwe. The primary data was collected by the use of questionnaires whereas secondary data was collected by use of a survey sheet. Pretesting was done to determine the reliability and validity of the questionnaire. The data collected was analysed using Statistical Package for Social Sciences (SPSS). The study established that changes in interest rates by the monetary authorities affected MFIs sustainability. The Person correlation and ANOVA findings indicated that the relationship of interest rate and sustainability of MFIs is positive and statistically significant. This implies that decreasing the lending rate reduces the return on asset (ROA) thus deterring the sustainability of MFIs. The government and other policy makers should put in place better interest rates policies that will make MFIs sustainable.

LIST OF ACRONYMS

RBZ - Reserve Bank of Zimbabwe

MFI - Microfinance Institution

LR - Lending Interest rate

ROA - Return on Asset

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Microfinance institutions are viewed as vehicles for economic development as they provide funding and other financial services to the entrepreneurial poor in developing economies. However, the high lending rates charged by many microfinance institutions as they strive to compensate for cost of fund have attracted the attention of concerned policymakers throughout the world. Recently, Monetary Authorities of Zimbabwe have used mandatory interest rate ceilings to protect the ill effects of predatory lending. It is therefore important to assess the effect of interest rate regulation on sustainability of microfinance institutions in Zimbabwe. This chapter reviews the background of the study, presents the statement of the problem, highlight the objectives, questions, significance of the study, justification of the study, delimitations of the study, assumptions, limitations, definition of terms and organization of the study.

1.2 Background of the Study

Intensive efforts to fight poverty saw the emergence of microfinance (Kimando *et al.*, 2012, Brau & Woller, 2014). The World Bank defines MFIs as those institutions that are involved in relatively small financial transactions employing various techniques to help low income households, micro enterprises, small scale farmers and others who cannot access the same from the formal banking system. Microfinance flourished in countries with a scarcity of bank infrastructures, such as most of Asia, Latin America and Eastern Europe. Sahara Africa microfinance institutions emerged in mid 1960s. In these expanses credit risk for organizations was very high, since customers needed to improve their livelihood and face many challenges during this period (Webster, 2006).

In Zimbabwe, microfinance can be traced back to the 1960s when individuals joined groups to form the savings clubs and previously there was the informal borrowing from family and friends (Mago 2013). In 1963 Catholic Missionary initiated a Savings Development Movement, (SDM) for rural women. The savings clubs grew in numbers and post-independence period in Zimbabwe created a conducive environment for the further development of microfinance, mostly savings and credit cooperatives (SACCOs) and (Rotating Savings and Credit Association (ROSCAs). During

a new dispensation shaped by the liberalization of the financial arena in the early 90's formed a financial system punctuated by stringent lending practices by banking institutes in Zimbabwe which excluded low income groups and MSMEs from gaining access to financial services from banking institutions due to lack of acceptable collateral security. The situation offered an opportunity for NGOs to provide financial support to the microfinance sector.

As at 31 December 2017 , the sector had registered 184 MFIs comprising 178 micro-credit only, 4 deposit taking micro-institutions, and 2 development financial institutions (SMEDCO and IDBZ), with a branch network of 681 given the potential impact of MFIs in poverty eradication and fight against financial exclusion, through their branch distribution networks in promoting access to funding to the vulnerable groups or excluded groups such as Women, SME and Youth with feasible projects in order to improve living standards. Microfinance institutions are anticipated to provide financial support in a sustainable manner and break the poverty cycle, through economic growth. The sector showed a fall in the total number of active clients from 322,728 as at 31 January 2017 to 254,094 as at 31 September 2017, the sector has been going up and down due to the penalty a borrower suffers for the use of money (interest rates).

Zimbabwean financial arena has witnessed mushrooming of Microfinance Institutions (MFIs) in the last decade. These institutions are established to target the poor by extending cheaper facilities. However, most of the poor are not able to access funding because MFIs are charging exorbitant interest rates. Chung (2013) asserts that Microfinance Institutions (MFIs) high interest rates have been at the center of debate from emergence of microfinance. Microfinance as a concept has been applied exclusively in achieving financial inclusion of all groups previously excluded from the formal financial system.

The most debatable aspect have been centered on interest rates which are charged by microfinance institutions, which are relatively high than the normal traditional bank rate. In relative to this many concerned parties worry that low income borrowers are being oppressed by excessive lending rates which are above 20% prevailing in the market due to lack of bargaining power by borrowers to negotiate for favorable interest rate. There is evidence that some microfinance institutions were charging interest rates ranging between 20%-30% per month.

Recently, the monetary authorities of Zimbabwe enacted a law to cap microfinance lending rates at 10% per month. However, the amendment might push the financial institutions to shut down some of their branches and to avoid lending to organizations or individuals which reduces their incomes thus hurting economic activities. The problem with MFIs is that they are generally not self-sustainable, but they rely on direct subsidies as well as well as subsidies on interest rates (Doyle, 2008). However, the issue of sustainability of MFIs has attracted more attention of the policymakers at the expense of the client/borrower. MFIs face an apparent pressure between attaining sustainability and fulfilling their social mandate of poverty reduction.

1.3 Problem Statement

Microfinance Institutions in Zimbabwe have gained wide recognition since 1990s for the role they play in provision of financial services to low income clients, including the self-employed, who traditionally lack access to conventional banking services and their contribution to poverty alleviation. Despite this vital role, the interest rates charged by the MFIs in Zimbabwe have been relatively high than those offered by non-microfinance institutions such as traditional commercial banks. However, the study on MFIs sustainability is important at such a point in time when the monetary authorities reduce interest rate for MFIs to 10% per month which pose threat to investments, viability, profitability and sustainability of the MFIs. It was therefore important to do this study to shed light on the effect of interest rate regulation on sustainability of Microfinance institutions in Zimbabwe.

1.4 Research Objective

The main objective of the study is to investigate the effect of interest rate regulation on sustainability of microfinance institutions in Zimbabwe. This will be achieved through the following sub-objectives:

- ❖ Investigate the effect of interest rate controls on profitability of MFIs.
- ❖ Find out if interest rate determine supply and demand for credit
- ❖ To determine the effect of liquidity position on sustainability of MFIs.
- ❖ To examine if operating income sustains MFIs.
- ❖ To identify factors to be considered when setting interest rate.

1.5 Research Questions

The study seeks to research and answer the following questions;

- ❖ What is the effect of interest rate controls on profitability of MFIs?
- ❖ How does liquidity position affects sustainability of MFIs?
- ❖ Does interest rate determine supply and demand for credit?
- ❖ Does operating income sustains MFIs?
- ❖ What are the factors considered when setting MFI interest rate?

1.6 Significance of the Study

The researcher believes that this study will be of the following practical value. The monetary authorities can use the cost structure and size of MFIs to make future adjustments on interest rates in order to enhance sustainability of MFIs. The management of various MFIs will be interested in every aspect of the financial analysis since it is their responsibility to ensure that firm's financial condition is sound through effective and efficient application of the available resources. Most importantly is the evaluation by management on how effective they are responding to the challenge of interest rate volatility in their institution. It is also essential for other MFIs to do comparison with other MFIs in the same industry.

The research aims at contributing to the theory of effect of lending interest rate and sustainability making a case for applicability. MFIs' managers will better placed in understanding the effect of interest rate regulation on the sustainability of MFIs given that lending is one of their most important source of income. It will also be beneficial to researchers and academicians by creating a platform for further research study on related topics, it will also act as a resourceful tool for other academicians who intend to undertake the same topic in their area of specialization. This research will also help to highlight other important variables that have effect on sustainability of MFIs in Zimbabwe.

The study also seeks to add value to Government by providing accurate information that will be used for creation of a conducive legislative and regulatory framework that encourage sustainable and efficient growth of microfinance sector and eliminates barriers of entry into the financial

market. The general public will be equipped with the knowledge of the effects and outcomes of interest rate ceilings enacted on microfinance institutions. The knowledge will be the key to enable them to know their contribution towards the success and sustainability of microfinance institutions, which are important in their livelihood. Eventually, they will take their ultimate role in supporting the performance of the institutions. Finally, the research will help Reserve Bank of Zimbabwe (RBZ) in policy formation aimed at controlling and regulating interest rates in Zimbabwe.

1.7 Delimitations (Scope) of the Study

Microfinance institutions across the expanses aims at fighting poverty through proving financial access to people who lack necessary requirements to obtain borrowing from traditional commercial banks. However, the study is also going to be confined to microfinance institutions in Zimbabwe in particular those headquartered in Harare. The researcher selected Harare due to its concentration of MFIs, market conditions, high credit risk, and high operating cost, and the existence of regulatory bodies such as Reserve Bank of Zimbabwe (RBZ).

1.8 Assumptions of the Study

The study makes the following assumptions:

- ❖ Collected data from the MFIs respondents is reliable and relevant.
- ❖ The results from the study are a true representative of all MFIs operating in Zimbabwe.
- ❖ All MFIs in the sample are registered by the RBZ.

1.9 Limitations of the Study

A number of challenges were encountered while carrying out the research. The process of data collection is punctuated with a lot of constraints.

The first constraint involves the issue of confidentiality. Many respondents from microfinance institutions were not be willing to reveal information about their organizations as they tried to maintain confidentiality policy. However, this was overcome by sending the questionnaires together with the letter from the university clarifying that the collected information will be used for academic purposes only and maintain confidentiality.

The procedure of data collection was long and subject to bias since the researcher had to leave the questionnaire and find the questionnaires uncompleted. The researcher had to be patient with respondents until an accepted response rate is reached.

Finance was a major challenge in relation to printing and transport cost. The researcher employed pick and drop technique, where he would distribute the questionnaire and collect them on an agreed date.

1.10 Definition of Key Terms

Microfinance- refers to all types of financial intermediation services, savings, credit funds transfer, insurance, pension, pension remittance, provided to low income households and enterprises in both urban and rural areas, including employees in the public and private sectors and the self.

Microfinance Institutions- refers to an organization that offers financial services to the very poor. They are also specialized providers of financial services to the microenterprises.

Interest rate- is defined as the compensation for the services and risk of lending money or the price of borrowing money.

Regulation- refers to laws and rules that provides a benchmark of acceptable behavior, which increase certainty, transparency and levels in the playing field.

Sustainability- refers to the ability to continue any given activity into the future within the likely existing resources of organization, as part of its ongoing budgetary and management process.

1.11 Organization of the Study

This introductory chapter is concerned with providing a concise summary and an introduction of what the whole research project involve. It presented the background to the study where the role played by microfinance and events that have given rise to the problem under study are highlighted. The issues compelling to this study were stated in the problem statement. This chapter also highlighted the objectives of the study, research questions, significance of the study, delimitation and assumptions of the study and lastly the organization of the study. The remainder of the study is structured as follows, the second chapter presents both theoretical and empirical evidence of the study review from different authors. The third chapter will outline the research methodology that

was used in the study to obtain all results from the research. This chapter shows in detail the tools that used for gathering all the data necessary for the research and how it was conducted generally. Presentation of findings will be done in chapter four. Finally, the last chapter gives research findings, conclusion on all the findings that were obtained and possible recommendations regarding the subject matter of this research study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to present an understanding on the works that have been published by other authors in relation to the field of study. The theoretical literature tries to draw information from what other writers or scholars have written in their journals, articles, and textbooks that contains researches which has been conducted in investigating lending interest rate regulation and sustainability. This chapter also contains of empirical literature which provides observed studies on interest rate regulation in MFIs and there sustainability, and thereafter provides a summary of the literature review.

2.2 Microfinance: An Overview

Several studies have uncovered that there is a common opinion among different stakeholders that high interest rates are as a result of internal aspects of MFIs, such as the goal of profit maximization in markets of their operations. The MFIs specific aspects are normally taken into account to ascertain their influence on pricing loans of an organization. These factors comprise of cost of funds, cost of operations, client rating, ownership structure and environment required to make profit in order maintain sustainability.

2.2.1 Interest Rates

Interest rate is the price a borrower pay for the use of money they borrow from an issuer or financial institution (Crowley, 2007). It can also be defined as the penalty that is paid by the client/borrower to MFIs on top of the principal amount borrowed. Interest rates in microfinance are normally determined by the cost of funds, risk premium and for profit motive. Risk is a likelihood that a default may occur. Cost of funds is the price that MFIs paid for sourcing funds or when acquiring funds from other financial institutions such as commercial banks and other monetary institutions. A study carried by Rosenberg (2009) highlighted that interest rates charged by MFIs are resulting from cost of funds, administration cost, interest expense and opportunity cost.

Julien (2014) revealed that MFIs interest rates on financial products differ across all expanses and they also fluctuate relative to institutional structures. Institutions charging high lending rates are capable to increase their operations and have an opportunity to provide loans to many clients.

Roodman (2011) uncovered that it is difficult to establish an unbiased lending rate for micro-credit products due to different dynamics which are employed by many MFIs, as well as in other areas of the regions. MFIs in expanses such as Latin America and Caribbean Island charge relatively high lending rates which are high as 109% per month which different stakeholders consider exorbitant (Campion, Ekker & Wenner, 2010). A study carried in Mexico by Malkin (2008) revealed that MFIs are capable of benefiting from clients through charging lower interest rates and as a result enjoy a good reputation development, and sustainability.

The liquidity preference approach views interest rates from demand and supply of the stock of money in the financial system. The study seeks to identify the rationale of the liquidity preference theory on the relationship between the money supply in form of loans by MFIs in times of rising and or falling lending rate, and the sustainability of the lender. The concept was first developed by Keynes (1936) where he asserted that the demand for liquidity/money is denoted as a function of level of interest rate and income. MD=money demanded: $Y = \text{Level of income}$ $r = \text{interest rate}$. According to this background interest rate is determined by the interaction of market forces of supply and demand of the stock of money. Keynes (1936) asserts that liquidity is demanded mainly for the following reasons, transaction, precautionary and speculative motive. He further highlighted that investors will always prefer short term securities to long term securities.

To motivate them hold long term bonds, long term securities should yield higher interests than short term bonds. Therefore, the- yield curve will always be upward sloping. It is based on the observation that, all things held constant, people prefer to hold on to cash (liquidity) and that they will demand an interest for investing in non-liquid assets such as bonds, stocks, and real estate. The theory suggest that the interest demanded for parting with liquidity increases as the maturity period of the investment increases. Auerbach (1998) states that the rate in the increase of this premium, however, slows down with the increase in the maturity period for getting the cash back. The theory of liquidity preference holds that long term securities should provide higher returns than short term obligations because investors are willing to sacrifice some yields to invest in short maturity obligations to avoid the higher price volatility of long maturity bonds (Reilly and Norton, 2006). According to Howels and Brian (2007), an increased preference for the liquidity in the

model is equivalent to increased demand for money and therefore demand for cash rise where more people think interest rates are likely to rise than believes they are likely to fall.

2.2.2 Interest Rate Regulation in Microfinance Institutions

According to RBZ (2015) microfinance end of year report, regulation on financial institutions is destined to promote fair and transparent business practices or preserve stability and protect clients. Clients are vulnerable to MFIs engagement in risky high-profit operations that threaten the safekeeping of their deposits and therefore the government enact regulations to counterbalance this exposure. The principal piece of legislation governing the Zimbabwean microfinance is the Microfinance Act (Chapter 24:29, Moneylending and Rates of Interest Rates Act (Chapter 14:14), the Banking Act (Chapter 24:20), the central Bank of Zimbabwe and other appointed authorities. The regulatory bodies either enact constraints on the MFIs to deter them from engaging in excessively risky activities, or provide set of incentives to align their private goals with their social aim (Microfinance bullet, 2015).

The exorbitant interest rates being charged by numerous MFIs have raised the attention of policymakers worldwide. Momentary authorities have employed mandatory interest rate caps to protect borrowers from the harsh effects of greedy lending practices. Interest rate caps normally cause harm than protect the poor buy reducing their access to financial services. Caps may also cause less transparency about the costs of borrowing, as MFIs manage with interest rate ceilings by adding other fees to their financial products (Esipisu, 2006). Government continue to play a vital role in microfinance sector by putting in place policies, for example interest rates policy, providing a revolving fund for microfinance institutions (MFIs), or lending directly to the low income group. It is costly to regulate MFIs since they are forced to offer better client's services and thus are pressed to increase their services.

2.3 Factors to be considered when setting Interest Rates of MFIs.

There are various factors to be taken into consideration when setting interest rate for MFIs such as funding costs, operating expenses, profits and inflation.

2.3.1 Funding Costs

Cost of funds is one of the main important factor to be taken into account when determining interest rates. According to Rosenberg *et al* (2013) funding costs are considered when determining interest rates since large portion of MFI's funds are sourced from other non- microfinance institutions such as traditional commercial banks. Microfinance get the funds at a cost that they then use to lend to borrowers. This implies that borrowing cost or costs of funds from other formal or informal financial institutions must be considered when determining lending interest rates. In Zimbabwe many MFIs are price takers they are charged prevailing market rates because they cannot bargain for favorable rates from their sources of finance in the market. Financial expenditure combined with these fees paid on such loans and deposit taken from the public account for the interest charged by profitable microfinance providers.

2.3.2 Operating Expenses

Operating expenses constitute largest portion of rates charged by sustainable microfinance providers. These high cost are in relation with distributing and recovering a large proportions of small sized loans often to borrowers in geographically isolated areas with poor infrastructure and security conditions. Although these interest rates are determined by many factors, administrative are a single highest contributor to interest rates (Gonzalez et al, 2007). Mcloughlin (2013), discovered that the determinants of interest rates are influenced largely by operating cost and ensuring sustainability through profiting.

2.3.3 Desired Profitability

Profit motivation of MFIs providers is important for many reasons. It's logical that income form part of interest rate charged on credit. MFIs should ensure that the returns generated are reasonable and not indicative of greed. The impact of profits on interest rate is not significant, but rates would still be high even without them. This is line with a study carried by Ridder (2010) indicated that high interest rates might not be a true mirror image of profitability as this compensate for the high costs incurred. However, there are other microfinance institutions whose profits contribute a large proportion of the rates that they charge (Cull, Demirg'uc-Kunt and Morduch, 2009).

2.3.4 Inflation

Interest rates are generally influenced by the inflation in a country's economy. Inflation is traditionally described as too many dollars chasing too few goods. Countries use their monetary policy to reduce inflation by limiting money supply in the economic market. Setting a fixed interest rate for financial institutions is the most common way for controlling inflation. High levels of inflation reduces the economic growth created by low financial institutions interest rates. Inflation also drives up the demand for money, as individuals need more capital to offset the reduction of purchasing power caused by inflation. Furthermore, inflation adds to the cost of microfinance funds by eroding lender's equity. Thus, higher inflation rates contribute to higher nominal microcredit interest rates through their effect on the real value equity (Foruquue and Khaliy, 2011).

2.4 Aspects of Interest Rate Regulation and the Sustainability of MFIs.

Sustainability of MFIs is affected by different aspects of interest rate regulation such as bank interest rate controls, liquidity position and supply and demand for credit.

2.4.1 Interest Rate Controls

Lending is one of the most important source of income for MFIs. In a well-functioning economy, MFIs generate high percentage of their revenues from interest income on lending activities. This means MFIs with quality assets (loans) tend to have a positive growth. Fernando (2006) asserts that many investors prefer to invest in MFIs with a positive growth since they are guaranteed a return in their investment. Return come in form of loan interest, fee income and investment income. Regulation of interest rate have a direct impact on the interest income earned by the MFI. It is therefore essential to understand the influence that regulation such as interest rate caps would pose on margins of interest income.

Profitability and financial performance is measured by return on assets (ROA) which gives a clear picture of how well the top management uses firm's resources to generate profits (Rug, 2013). Interest rates influence profitability which affects the sustainability of financial Institutions (Aren & Duhn, 2016). The impact of interest rate on MFI's income comes via two channels of the returns side. First, high interest rates raise the amount of income a MFI generate on new assets it purchases.

However, the speed of income adjustment will be as a result of speed of interest rate adjustment. Second, the influence hinges on the amount of loans and securities held (Were and Wambua, 2013).

An increase in interest rate is health for MFIs due to returns on new investments, increased income margins on loans. As a result of this, that is, increase in interest rates which lead to health financial performance of the financial institution sends signal of good returns in the form of dividends. Interest on loans is behind a banks dismal profitability (Njihia, 2005).

2.4.2 Liquidity Position

Liquidity can be an indicative for financial health of a business or personal investment portfolio. There are three liquidity ratios that can be computed for this purpose, including the current ratio, the quick ratio and the cash ratio (Diamond & Rajan, 2015). When analyzing the financial health of a business there are four different groups of ratios that the analyst will take into account. The most used liquidity ratios are: ratios concerning inventory, receivables, working capital, current ratio, and acid test ratio (Muranaga & Ohsawa, 2012).

Liquidity of the firm is the primary determinant of the firm's financial sustainability. According to Abor (2010) liquidity gap and liquidity ratios are two main techniques that can be used to measure liquidity risk. The liquidity gap is described as the difference between assets and liabilities at both present and future dates. Liquidity is the amount of capital that is at hand for investment and spending. Capital comprises cash, credit and equity. Most of the capital is credit rather than cash since large financial institutions that do investments prefer using borrowed money (Jeanne & Svensson, 2012).

According to a study that was carried by Holmstrom and Tirole (2010) there is a negative and significant relationship between the level of liquidity and financial sustainability. Bourke (2011) argues and reported an opposite result, thus finding a positive relationship between liquidity and financial sustainability. Abor (2010) point out that deposit to total asset and total loan to customer deposits are the most common financial ratios used to measure liquidity position of a financial institution.

2.4.3 Supply and Demand for Credit.

The role of credit is to bridge the gap between business owner's financial assets and required financial assets of the business. Due to persistence of this disparity, businesses are forced to demand credit. Demand for credit can be categorized into perceived, potential and revealed demand (Aryeetey et al, 1994). Perceived demand is denoted by a situation where businesses that assume to be in need of funding, mention finance as a limitation. Potential demand is characterized by a desire for credit which is not actualized due to market imperfections and institutional barriers. Revealed demand is characterized as written application for financial support at a given rate of interest.

The debate on whether high interest rates affect the demand for credit is inconclusive and may go indefinitely. There are two main schools of thought. The first school supported that high interest rates negatively influence the demand for credit since, only limited clients with high risk projects may have their demand satisfied. Prominent among this school are Stiglits and Weiss (1981), Stiglits (1989) and Besley (1994) who argue that high interest rates encourage adverse selection of loan seekers. Those who take high risk and get their loans approved are those with high default rates. The second school of thought states that high interest rates do not affect the demand for credit.

It is generally believed that in the arena of microfinance borrowers are not too sensitive to the level of interest rates at which they borrow as they care mostly about access to funding. A few years back, it was believed that access to funding was much more important to clients than interest rates, since their small businesses had a very high returns since they had the capacity to get the working capital to set up them. The recent study by Compartamos (high micro lender in Latin America) looked at the impact of on demand when lending interest rates are 10% lower for loan. The study found out that credit demand from current and from new clients is indeed elastic to interest rates, clients react or care about prices. Other findings indicated that lower rates increase financial inclusion by attracting new clients and that the elasticity of demand increases over time (borrower become more sensitive to pricing over time).

From the view of borrowers, lower loan prices can raise the potential demand for loans and financial inclusion, while excessive rates can push borrowers into over- indebtedness. From the view of MFIs, lower loan prices might lead them to rely on donor funds while high prices can result to higher supervisory inspection and attract the worst clients. It is evident that when the interest rate is brought to minimum the MFIs are not able to generate enough income to cover their operating expenses. Hence high interest rate lead to low demand for credit. Likewise low rate results to low credit supply. The question around fair rates is therefore key to policymakers and MFIs.

2.5 Empirical Review

The empirical review is there to show some views, evidence and opinion of other researchers and what they found out about the effects of interest rate regulation on MFIs. Interest rate regulation is the topic of many empirical analyses, both for developing and developed countries. Depending on the purpose of the study, data availability and specific aspects of a particular MFI systems, the studies are conducted out in different manners.

2.5.1 Studies Conducted in Developing Economies

Wfula (2016) carried a study on determinants of financial sustainability of microfinance institutions in Kenya. The study identified that liquidity, financial performance, capital adequacy and leverage were the factors that highly influence the financial sustainability. The primary reason of a study was the evaluating the determinants of the financial sustainability of microfinance institutions. The study found out that liquidity is positively and significantly associated with financial sustainability, financial performance is positively but insignificantly. Capital adequacy and leverage are negatively and significantly associated with financial sustainability.

A study carried by Kimondo, Kirhiro and Njogu (2012) concluded that the main factors that influence sustainability of MFIs in Murang'a Municipality in Kenya comprised lending interest rate, the regulatory regime overseeing the institutions, liquidity levels, leverage of the institutions and the individual lending model used. Tehulu (2013) found that financial sustainability is positively correlated with the level of leverage and liquidity, when he analyzed unbalanced panel data collected from 23 MFIs in East Africa from 2004 to 2009

Chikalipah (2014) studied the determinants of microfinance lending interest rates in Sub-Saharan Africa. The study employed unbalance panel data comprising of 292 MFIs selected from 34 Sub-Saharan Africa (SSA) countries and covered a period of 2003 to 2011. The study confirmed that the finance costs, return on assets, operating expenses and inflation largely drive microfinance lending interest rates in SSA. The results from the study failed to clearly uncover whether the lending interest rates charged ascertain the performance of an MFI.

Bogan (2009) conducted a study on the relationship between capital structure and sustainability of MFIs using panel data collected from 53 MFIs in Uganda over a period of six years. This study revealed that increased use of grants by well-established microfinance institutions reduces operational self-sufficiency. It was also confirmed that asset size is significantly and positively related to sustainability. However, the two main economy macroeconomic indicator variables (gross domestic product and inflation) are not significant determinants of operational sustainability.

Githinji (2009) studied the factors affecting sustainability of microfinance institutions in Kenya. The study discovered that per capital income, savings mobilized, form of incorporation and loans extended affected MFIs sustainability in Kenya. The study sought to identify the factors that influence sustainability of MFIs in Kenya and to ascertain the association between financial and institutional sustainability of MFIs. The findings revealed that majority of microfinance institutions in Kenya are below the acceptable market mean sustainability as measured by return on asset (ROA).

According to a study carried by Gathuku (2010) on the reaction of MFIs to regulation through Microfinance Act 2006 in Kenya. The researcher investigated the potential sources of financial regulation in the inter-bank market and the effects on interest rate spreads, loan/deposit flows and bank equity and disputed that while a considerable potential for infection results from asymmetric information among contracting parties, due to imperfect information gathering and costs monitoring in markets for unsecured loans, the real settlement process itself builds an institutional infection potential. The study sum up that this does not just arise from the aptitude to spread credit exposures of involved banks, but those relating to sovereign risk and liquidity risk.

2.5.2 Studies of Non-African Countries

Arsyad (2015) conducted a study on the performance and sustainability of MFIs in Indonesia using a case study on village credit institutions. The study revealed that success of the microfinance institutions hinges on the bank controls (Central bank regulation) and supporting government policy by providing a legal basis for microfinance institutions. Thus, based on the required conditions for sustainable MFIs suggested by various scholars (Christen 1998, Yaron 1994) highlighted that the district village credit institutions have been sustainable, and by that inference they had a positive net social benefit for clients.

In their study on the association between depth of outreach and financial sustainability in USA, Woller and Schreiner (2002) found out that depth of outreach has a positive relationship with financial sustainability. The study findings were against a view that small loans disbursed to the disadvantaged group are highly risky and correlated with lower financial sustainability in microfinance sector.

A research carried by Donor Brief 18 (2004) confirmed that many countries have employed interest rate caps to protect clients from unscrupulous lenders. Government also experience cultural and political force to keep lending interest rates low. The researcher also disputes that in spite of good intentions, lending interest rate caps generally hurt the low income earners by creating barriers to entry for new MFIs to emerge and making it difficult for existing ones to manage and remain in business. In nations with lending interest rate caps, MFIs exit time and again from the market, grow slowly, since less transparent about total loan costs, and reduce their work in isolated areas such as rural and costly markets. By forcing MFIs out of market, bank controls often drive clients back to the expensive informal market where they have limited protection. Therefore, it is evident that lending interest rates charged by MFIs may determine their sustainability.

Ridder (2010) conducted a study to ascertain whether the lending interest rate charged by MFIs are exorbitant and too high for the low income group. The study points out that interest rates charged by MFIs emanate from high operating costs they are exposed to than traditional commercial banks. On the other hand, Ridder (2010) argues that the high lending interest rates are conflicting with the main social mandate of breaking poverty cycle since many clients do not have

access to such loans. It is therefore, evident that high rates might not be a true reflection of profitability as this compensate for the high costs incurred

2.6 Literature Gap

After empirical review, it is evident that various studies have been carried out across the expanses in different developing and developed countries in regard to interest rates. The studies conducted so far in this area have concentrated mainly on the relationship between interest rates and financial performance of MFIs, and determinants of sustainability of MFIs as indicated by Rasheed (2010), Mwangi (2013) and Okeye (2013) to the best of the researcher's knowledge. This provide evidence that most studies have not addressed interest rate regulation on sustainability of MFIs, thus leaves major gaps that need to be filled by further research undertakings. This study was therefore conducted in order to shed light by studying the effects of interest rate regulation on sustainability of microfinance institutions in Zimbabwe.

2.7 Summary

This chapter covered various literature from different scholars across the regions on the interest rates. The chapter reviewed literature about lending interest rate in MFIs. The findings from the empirical study and literature review revealed out that lending interest rate, risk and economic growth, leverage, liquidity, numbered of served clients and size of the firm are the factors that influence sustainability of micro-finance institutions. The next chapter will be focusing mainly on research design, target population, data collecting instruments.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter lays out the methods used by the study to attain its set objectives. The research design, a description of the population and sampling techniques, sources of data used, the research instruments, model specification, justification of variables, data type and sources, estimation and the summary are hereunder.

3.2 Research Design

Cooper & Schindler (2006) describes a research design as to how data collection and analysis are organised in order to meet the research goals through empirical evidence. The study adopted a cross-sectional descriptive research design. According to Kothari (2008) descriptive research design aims to provide exact and valid picture of the factors that are pertinent to study questions or objectives. This research design was used because it described an issue often by creating a profile of a group of problems, people or events through the collection of data and tabulation of the mean and frequencies on study variable. The design was considered suitable for the research, since it allows the researcher to describe the state of affairs as they exist without manipulation of variables which is the goal of the study.

3.3 Research Population

The target population describes the population to which the study findings are generalised. The targeted population in this study covered all the MFIs headquartered in Harare regulated by Reserve Bank of Zimbabwe as at 31 December 2017. There are 120 MFIs whose headquarters is located in Harare against a total of 184 MFIs in Zimbabwe. The study population was discovered relevant to represent Zimbabwe micro-finance sector because of its concentration of microfinance institutions, environment conditions, high loan risk, and high operating expenditures, and the existence of supervisory bodies such as Central Bank of Zimbabwe (CBZ). Furthermore, majority staff affiliates at headquarters are considered to have adequate knowledge concern operations and decisions of the institution.

3.4 Research Sample

The researcher employed a combination of both purposive and chance sampling techniques. Under purposive sampling each affiliate of the population has the same opportunity to be as a representative sample or each population affiliate is designated for inclusion in the sample based on the ease of access (Kothari, 2004). On the other hand, in chance (non-probability) it is not known that which member from the population will be designated as sample or there are no known probabilities of a population member being included in a sample (Wretman, 2010). The researcher used judgement sampling in his judgement in selecting of 60 respondents which include branch managers, loan officers, administration officers and loss control officer in MFIs as the best sampling unit to make up the sample for the study. According to Kothari (2004), in judgement sampling the researcher's judgement is employed for picking items which he considers as representative of the population.

3.5 Sample Size

A study carried by Kombo and Tromp (2009) state that a sample is a subset of population that has been selected to present characteristics of a population. The study used a census survey design. Census survey was used because the population of interest was small.

Table 3.1 Composition of the Sample Size

Respondent	Number
Branch managers/supervisors	20
Loan officers	20
Administration officers	10
Loss control officers	10
Total	60

Source: Raw Data

3.6 Data Collection Methods and Instruments

Mugenda and Mugenda (2003) concede that there are two types of data: primary data and secondary data.

3.6.1 Primary Data

Primary data are those which are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). The primary data was collected using self-administered semi-structured questionnaire and distributed 60 questionnaires to MFIs in Harare. According to Saunders *et al* (2009), questionnaires are a valuable technique of gathering a wide range of data from various respondents and are usually very simple during data analysis. Furthermore, Monette (2009) regards a questionnaire as a way to collect data in survey research that contains recorded questions that people respond to directly on the questionnaire from itself, without the aid of an interview. Drop and pick was the technique employed to administer questionnaires. The researcher also made some efforts to try to boost responses rate by making onsite visits to the study area.

3.6.2 Secondary Data

According to Kothari (2004) secondary data are those which have been already been collected by someone else and which have already been passed through the statistical process. Secondary data may be collected from financial statements, annual reports, supervision reports, and available data in economic survey.

3.7 Data Validity and Reliability

Data accuracy was determined by the quality of data collection techniques (Mugenda, 2008). The extent to which test scores are free of measurement error or the degree to which findings are dependable over time and exact representation of the population under study define data reliability. This confirms that if findings are regenerated using a different technique then generate the same results, the research tools will be considered to be reliable.

A pilot study was carried out and adjustments to the distributed questionnaire are going to be made to ensure that information is reliable. Validity refers to the soundness of the interpretation of scores from a test, the most important consideration in measurement. According to Carter and

Porter (2000), asserts that validity can be divided into internal and external, further asserts that internal validity relates to the extent to which research design is a good test of the hypothesis or research question. Cozyby (2009) believes that the internal validity of a research study is the extent to which its design allows the researcher to draw accurate conclusions about cause and effect relationship. External validity refers to whether or not research findings can be applied beyond the narrow confines of the study.

To test for reliability, the study also adopted the Cronbach Alpha statistics. If the Cronbach Alpha for the items employed to measure the variable is above 0.7, the data collection tool for variable is said to be reliable.

3.8 Data Analysis

Gall *et al* (2007) described data analysis as a practice in which raw data is ordered and organised so that results can be generated from it. Descriptive statistics such as mean and standard deviations was used in data analysis. The mean and standard deviations were used to measure the significance of the variable in the study.

Data collected with the use of questionnaire, was prepared in readiness for analysis by editing, handling blank responses, coding, categorising and keying into the statistical package for social science (SPSS) computer software. Statistical package for social science was employed to generate mean, standard deviations and descriptive statistics which was employed to come with conclusions and generalisation concerning population. The descriptive statistics adopted for the study were mean, percentages and standard deviations.

3.9 This Study Used Secondary Data Analysis

This study employed explanatory research design to analyse findings from distributed questionnaires.

3.9.1 Model specification

Data analysis was conducted using SPSS, to examine the effect of interest rate regulation on MFIs sustainability. The study adopted Demirgüç-Kunt and Huizinga (1999) model. This study will use

linear regression analysis to confirm the relationship between the independent and dependent variables.

The model would take the following general form.

$$Y = \alpha + \beta LE + \epsilon$$

Where: Y = Sustainability

α = constant

ϵ = error term

βLE = Lending interest rate

3.9.2 Test of Significance

The Pearson product moment coefficient (R) was used to ascertain the association between the lending rate and sustainability of microfinance institutions in Zimbabwe based on the population data. A coefficient of determination (R²) was used to measure the direction and strength of the association between independent (lending rate) and dependent variable (ROA). To test the significance of the relation of the study variables, analysis of variance (ANOVA) was done.

3.10 Summary

This chapter concentrated on outlining and elucidating the research methodology adopted to carry out the study. It also addressed issues to do with the reliability and validity of the data collected to guarantee that data collected by the researcher is authentic. Lastly the chapter gave a highlight to how data is going to be collected in a way that enables the understanding of how interest rate affect sustainability of microfinance institutions. The following chapter will be centered on data analysis and presentation.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter covers data presentation and analysis of the results from the study. The chapter begins by analysing response rate and presenting demographic information, the second part analysing primary data using SPSS 20 in order to respond to research questions in the first chapter. Thereafter, the chapter present descriptive statistics of the study in which attention will be paid on the mean and standard deviation as indicators of variability. The study presented regression analysis and Pearson correlation analysis findings to confirm the association between interest rate and sustainability, and to ascertain direction and strength of the association.

4.2. Analysis of Response Rate

Response rate is computed or obtain by dividing the number of questionnaire distributed against the returned questionnaires. Willman (2010) asserts that a low response rate produce findings with a sample bias whilst a high response rate findings will be free from biasness. The table below indicates response rate from questionnaires distributed.

Table 4.1 Questionnaire Response Rate

	Deposit taking MFIs	Credit only MFIs	Subsidiary Bank owned	Microfinance Bank	Total	Rate %
Distributed	50	4	2	4	60	100%
Returned questionnaires	44	2	2	2	50	83.33%
Unreturned questionnaires	6	2	0	2	10	16.67

Source: Raw Data

The study carried a census survey with a sample size being Head Office staff in Harare. Sixty (60) questionnaires were circulated to the respondents who were branch managers, loan officers,

administration officer and loss control officers in each of microfinance institution. A total of 50 questionnaires were completed and collected from the respondents which translated to 83.33% response rate. Hart, Breman and Sym (2010) stated that a response rate of 60% and above is satisfactory to pull a convincing analysis from data collected. This implies that the response rate was satisfactory and falls within the recommended range.

4.3 Reliability Test

The researcher tested for reliability of the data collection mechanism by conducted a pilot study. The reliability of the data collection mechanism is required before the mechanism can be employed to gather data for analysis. The study used 7 questionnaires to collect pilot data analysis. Cronbach Alpha statistics was also adopted by the study to test for reliability as shown on the diagram below.

Table 4.2 Reliability Test

Reliability Variables		Number Of Items	Cronbach Alpha	Status
Lending Interest rate		3	0.721	Accepted
Sustainability		3	0.854	Accepted
Supply and Demand for credit		7	0.842	Accepted
Bank Profitability		5	0.826	Accepted

Source: SPSS Computed Data

The data collection mechanism is said to be reliable if the Cronbach Alpha statistic for the items used to measure the variable is above 0.7. This imply that the data collection tool for variables is reliable.

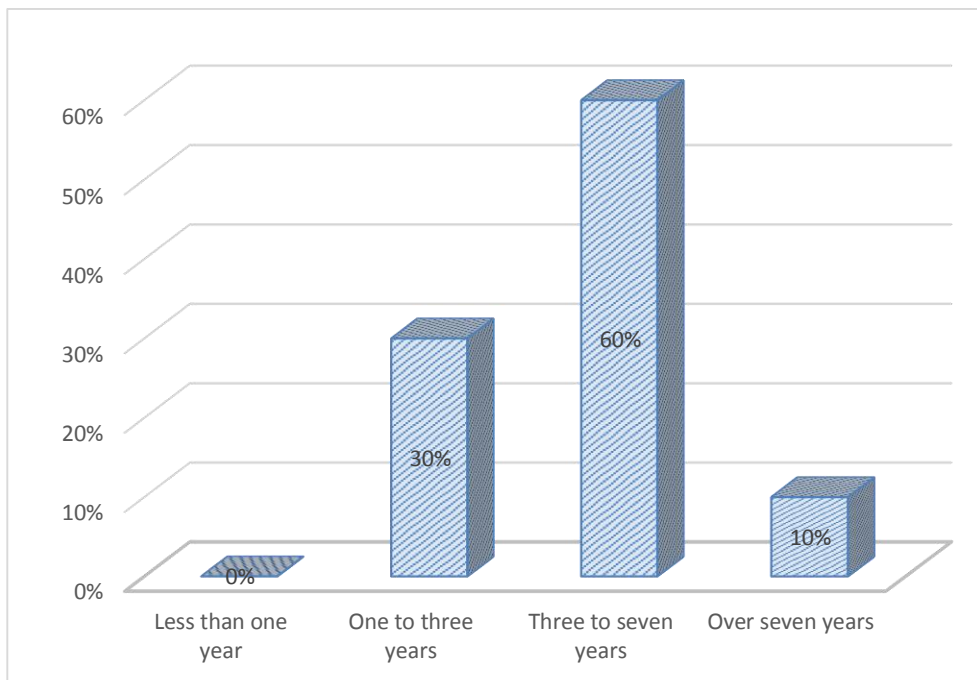
4.4 Demographic Analysis of Respondents

The study encompassed years worked (experience) and designation in the MFI as demographic data to provide legitimacy to the results of the study.

4.4.1 Years Worked in the MFI

The figure 4.1 below shows percentage distribution of years worked or experience of the respondents in MFIs head quartered in Harare.

Figure 4.1 Experience in the Sector



Source: primary data

The figure 4.1, indicates that 30% of the respondents have been working in the MFI industry for a period ranging between one to three years (1 to 3), whilst 60% of the respondents have been in the industry a period ranging between three to seven (3 to 7) years and 10% had been in industry for over seven years. The findings shows that those who worked in the MFI industry for three years to seven are the majority of the respondents and have vast knowledge on how the business operates. Microfinance industry in Zimbabwe is 9 years old after the adoption of the multicurrency system

in 2009. The majority of respondents who are more than three years are considered to be well vested with the business in the sector and have enough knowledge to respond to the structured questionnaire on lending rates and MFIs sustainability. The expertise or experience provides more value or dependability to the findings of the study.

4.2.2 Position held in the MFI

The table 4.2 below shows position held in the institution by respondents

Table 4.2 Position held by respondents in the MFIs

	Frequency	Percentage %
Branch Manager	27	54
Loan Officer	15	30
Administration Officer	4	8
Loss control Officer	4	8
Total	50	100

Source: primary data

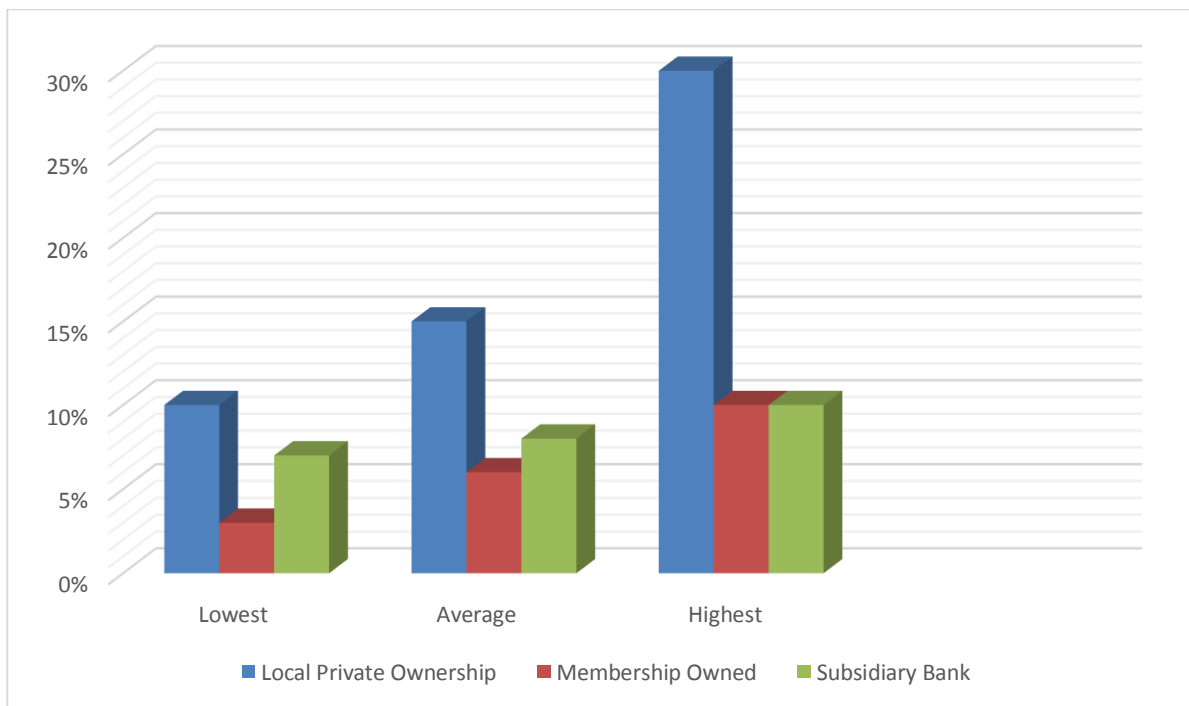
The table above display the number of respondents and their designation in the institution. 54% of respondents belongs to the branch managers who are responsible for the decision making and supervision of day to day activities of their respective branches. 30% of the respondents goes to loan officer who are responsible for credit analysis and recommend the organisation to accept the loan request or to decline basis on level of risk inherent. 8% belonged to administration officer who are responsible for paper work which involves capturing, processing and record keeping. Finally, 8% goes to loss control officers who put in place measures to mitigate losses in the

organisation. Providing the sources of data, from the respondents the degree of accuracy of information gathered will become less compromised.

4.5 Prevailing Market Interest Rates for MFIs per Month

The figure below displays prevailing market interest rates for microfinance institutions in different proprietorship structures.

Figure 4.2 Market Interest Rates



Source: ZIMSTATS

The diagram above displays the prevailing interest rates in the market for local private owned, membership owned and subsidiary bank microfinance institutions. Local private owned microfinance institutions lowest interest rate prevailing on the market is 10% and their highest is 30% having an average of 15% on the market. Subsidiary Bank owned microfinance institutions lowest rate on the market is 7% and their highest 10% having an average of 8 on the market. Membership owned microfinance lowest interest rate on the market is 3% and their highest stood at 10% having an average of 8%. Per month. The above findings indicates that locally private

owned microfinance institutions charge rates on the market as compared to subsidiary bank and membership owned microfinance institutions.

4.6 Effect of Interest Rate Regulation on Profitability of MFIs.

The study wanted to find out the effect of regulation of interest rates on MFIs profitability. The researcher posed 7 different questions in a bid to seek opinions of respondents concerning this notion and the findings are presented using tables and charts below:

4.6.1 Interest Rate Regulation and Interest Income

The table below shows opinions of respondents regarding the effect of interest rate regulation and interest income.

Table 4.3 Interest rate Regulation and Interest Income

	Percentage	Cumulative percentage
Strongly disagree	26	26
Disagree	48	74
Neutral	14	88
Agree	12	100
total	100	

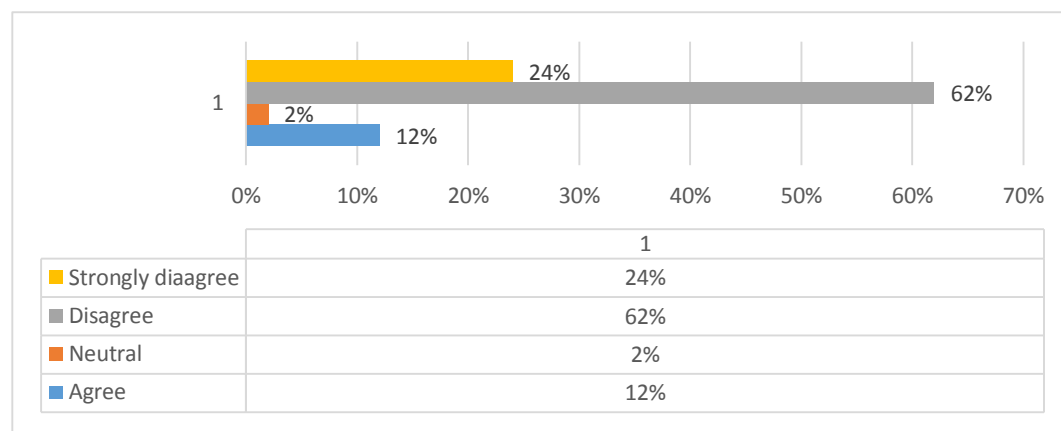
Source: primary data

MFIs extend facilities with the main goal being of increasing interest income and as a result increase the overall profitability of the institution. The study wanted to find out whether interest income of MFIs increase as a result of regulation of interest rates. The findings indicated that 12% agree, 14% were neutral, 48% disagree and 26% strongly disagree that MFIs interest income has increased a result of interest rate regulation. This implies that controls enacted by the central bank such as interest rate ceilings negatively impact on the MFIs profitability.

4.6.2 Interest Regulation and Profitability of MFIs

Microfinance institutions target is to continuously increase their profitability. The study sought to ascertain whether interest rate has led to an increase in MFIs profitability.

Figure 4.3 Interest regulation and profitability of MFIs



Source: primary data

The above diagram shows the opinions of respondents concerning the impact of interest rate regulation on MFIs profitability. The findings from the study revealed that 12% agree, 2% neutral, 62% disagree and 24% strongly disagree that interest rate regulation led to an increase in MFI profitability. This entails that when interest rate is brought to minimum the microfinance institutions are not able to earn enough income to cover their expenses. The outcomes from the above figure are also in line with findings from studies of other scholars such as Donor Brief 18 (2004), who found out that interest rate ceilings affects financial performance of MFIs in USA.

4.6.3 Loan Loss Provision and Regulation of Interest Rates

The table below shows the opinions of the respondents on whether loan loss provision decrease due to interest rate regulation.

Table 4.4 Loan loss provision and interest rate regulation

	Percentage %	Cumulative Percentage
Strongly disagree	8	8
Disagree	40	48
Neutral	24	72
Agree	28	100
Total	100	

Source: primary data

Loan provision are funds set aside as a cushion or allowance for default loans and loan payments. The researcher found out that 28% agree, 24% neutral, 40% disagree and 8% strongly disagree that loan loss provisions decrease as a result of interest rate regulation. This imply that when interest rates are low, the level of loan default will also be low due to affordability of the MFIs finance products.

4.6.4 Interest Rate Regulation and Default Rate

The table 4.5 below presents results on whether default rate increased due to interest rate regulation.

Table 4.5 Default rate and interest rate regulation

	Percent	Cumulative percentage
Strongly disagree	4	4
Disagree	44	48
Neutral	28	76
Agree	20	96
Strongly agree	4	100
Total	100	

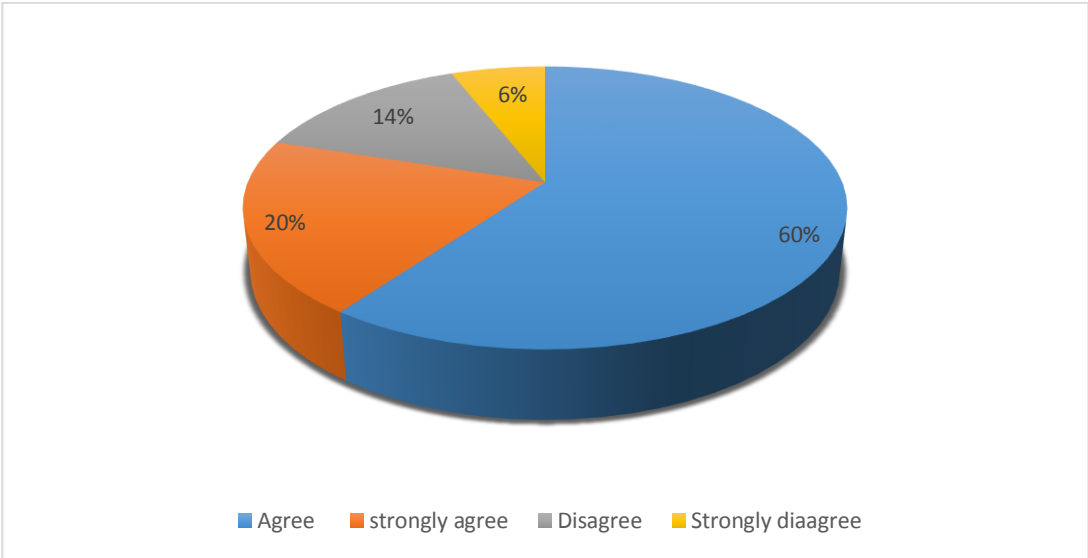
Source: primary data

Loan default increases when the client fails to meet the outstanding loan amount or becomes incapable to pay due to some reason such as disability or unemployment. The researcher discovered that 4% strongly agree, 20% agree, 28% were neutral, 44 disagree and 4% strongly disagreed that the level of loan default increased as a result of interest rate regulation. This means that regulation of lending rate decrease level of default as loans will be affordable.

4.6.5 Other MFIs charges and interest rate regulation

The figure below presented results on opinions of respondents regarding other MFIs charges and interest rate regulation.

Table 4.4 Other MFIs Fees



Source: Primary Data

It is expected that if lending interest rates are low, MFI are likely to increase other charges so as to cover the loss emanating from reduction in interest income. The study wanted to find out if other MFIs fees increased since bank controls come into effect. The diagram above confirmed that out of fifty respondents, 6% strongly disagree, 14% disagree, 20% agree and 60% strongly agree that other MFI charges have risen as a result of interest rate regulation. This is in line with a study

conducted by Esipisu (2003), who state that ceilings can result to less transparency about the costs of borrowing, as MFIs manage with interest rate caps by adding other fees to their services.

4.6.6 Interest Rate Regulation and Liquidity

Table 4.6 below shows views of respondents on interest rate regulation and liquidity of MFIs.

Table 4.6 Liquidity and interest rate regulation

	Percentage	Cumulative Percentage
Strongly disagree	10	10
disagree	40	50
Neutral	10	60
Agree	20	80
Strongly agree	20	100
Total	100	

Source: primary data

Liquidity is the key for MFIs to guarantee them that they can disburse any amount of loan to generate more interest income and increase their return on asset which is sustainability. The findings from the study confirmed that 10% strongly disagree, 30% disagree, 10% neutral, 30% agree and 20% strongly agrees that regulation of interest rates has resulted to reduction in liquidity or funds available for lending. The results shown on the table above indicate that there is a positive correlation between interest rate regulation and liquidity.

4.6.7 Interest Rate Regulation and Marketability of MFI

Table 4.7 below presented opinions of respondents on interest rate regulation and marketability of the MFI products.

Table 4.7 Marketability of MFIs products

	Percentage	Cumulative percentage
Strongly disagree	4	4
Disagree	8	12
Neutral	14	26
Agree	60	86
Strongly agree	14	100
Total	100	

Source: Primary Data

MFIs strive to ensure that their loan products are competitive in the market. The researcher wanted to find out if interest rate regulation increased marketability of the MFI products. It was discovered that 4% strongly disagree, 8% disagree, 14% neutral, 60% agree, 14% strongly agree. The results on the table above confirm that regulation of lending rate makes MFIs products attractive and affordable to clients.

4.8 Effect of Lending Interest Rate Regulation on Supply and Demand for Credit.

The study sought to find out the influence of interest rate on supply and demand for credit. The researcher structured 4 different questions in a bid to seek opinions of respondents concerning this view and the findings are presented using tables and charts below.

4.8.1 Number of existing borrowers and interest rate regulation

Table 4.7 show respondents' opinions on number of clients and interest rate regulation.

Table 4.7 Number of existing borrowers

	Percentage	Cumulative Percentage
Strongly disagree	10	10
Disagree	30	40
Agree	40	80
Strongly agree	20	100
Total	100	

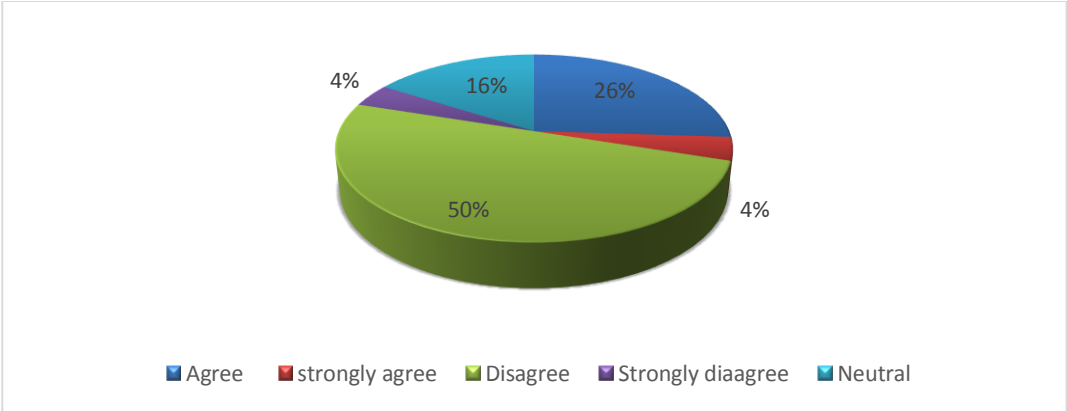
Source: Primary Data

The study intended to found out if there was a correlation between the number of borrowers before and after the interest rate regulation. 20% strongly agree, 40% agree, 30% disagree and 10% strongly disagreed that MFI had many borrowers before bank controls. This means that when monetary authorities impose ceilings the players in the MFI sector will intend to pull out from the market and some reduce their branch network since it will not be lucrative to continue business activities.

4.7.2 Number of approved Loans and Interest Rates regulation

The figure below displays the respondents’ views concerning number of approved loans and interest rate regulation.

Figure 4.5 Number of approved loans and interest rates regulation



Source: Primary Data

The insinuation on this parameter is that interest rate regulation is expected to increase the number of loan request as a result of the affordability of the facilities. The findings of the study indicate that 4% strongly agree, 26% agree, 16% were neutral, 50% disagree and the remaining 4% strongly disagreed that the number of proved loans increased resulting from interest rate regulation. The results shows that MFIs will be reluctant to extend loans since it will not be profitable to extend loans when interest rates are low.

4.7.4 Number of New Borrowers and Interest Rate Regulation

Table 4.8 shows views of respondents on number new borrowers and interest rate regulation.

Table 4.8 Number of borrowers and interest rate regulation

	Percentage	Cumulative Percentage
Strongly disagree	3.3	3.3
disagree	20	23.3
neutral	10	33.3
agree	46.7	80
Strongly agree	20	100
Total	100	

Source: Primary Data

The study also intend to uncover whether regulation of interest rate affected the number of new clients/borrowers. It was confirmed that 3.3% strongly disagreed, 20% disagree, 10% neutral, 46.7% agree and 20% strongly agree that the number of new clients increased since the regulation of interest rate. The results on the table above show that number new borrowers are directly affected by interest rate regulation.

4.7.5 Rate of lending and interest rate regulation

Table 4.9 shows the respondent's opinions on whether MFIs slowed down lending as results of interest rate regulation.

Table 4.9 Rate of extending credit and interest rates

	Percentage	Cumulative Percentage
Strongly disagree	6	6
disagree	12	18
neutral	12	30
agree	52	82
Strongly agree	18	100
Total	100	

Source: primary data

MFIs aim to have high interest income and the return on the risk from issuing loans. However, if both the interest income and the return on the risk from loaning is low, MFIs are expected to slow down in advancing loans. Unsecured loan advancements are expected to reduce because there is inadequate return on the risk taken from the loan pricing. The study desired to find out if the implementation of interest rate regulation slowed down the loan advancement of MFIs. It was discovered that out of fifty respondents, 6% disagree, 12% neutral, 12% agree and 52% strongly agree 18%.

4.8 Factors to be considered when determining Interest Rates in MFIs

The researcher intended to establish the extent to which the respondents agree with the various factors to be considered when determining interest rates. The following table presents the opinions of the respondents regarding the factors in question in setting loan prices.

The table show descriptive statistics of factors considered when setting interest rates in MFIs

Table 4.10 Descriptive statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Funding Cost	50	4.6000	.06999	.49487
Operating Costs	50	3.8600	.18954	1.34027
Need for profiting	50	3.2000	.20800	1.47080
Inflation	50	4.5400	.07120	.50346

Source: SPSS computed data

From the table 4.10, above funding costs 4.8 rating and inflation 4.54 rating taken into account when establishing interest rates to a very large extent from the Likert scale as discovered from

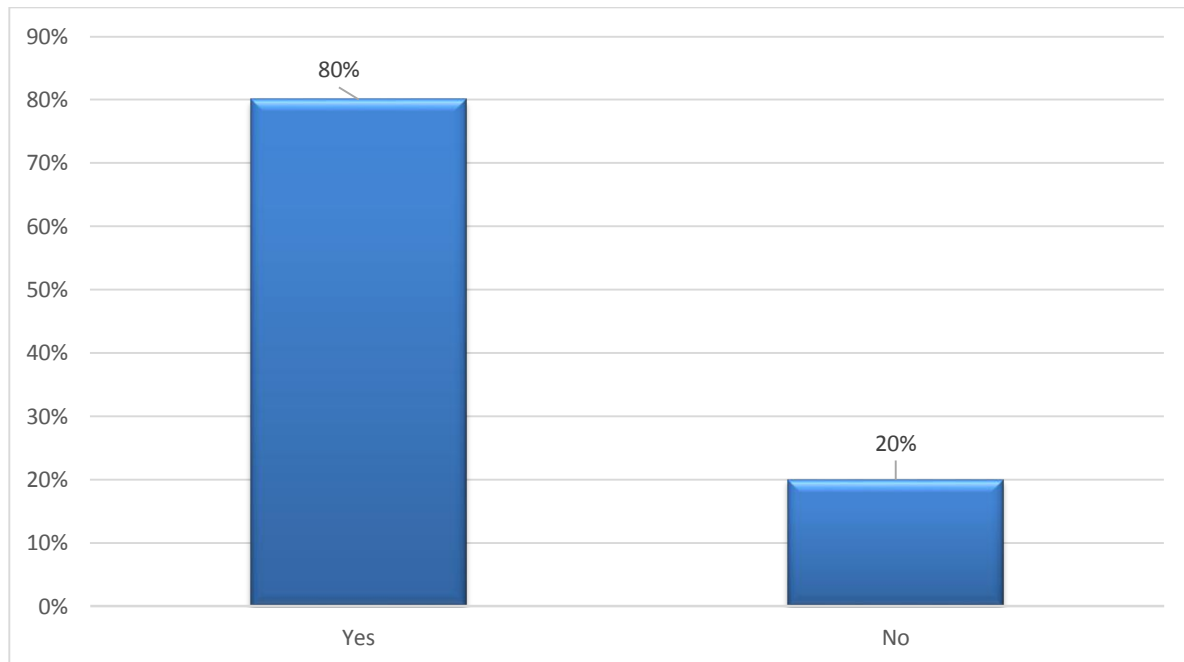
different MFIs. Operating cost 3.8 rating and profit 3.2 rating on establishing interest rates imply that these factors determine rates to a greater extent as alluded by the Likert scale rating.

The results shown on the table above are in line with findings of different scholars such as Resenberg *et al* (2013), who point out several factors like funding costs, loan loss expense and operating costs as responsible for determining interest rates or loan pricing. Mcloughlin (2013), state that determinants of interest rates are hinged largely on operating expenses and ensuring sustainability through return on asset (profiting).

4.9 Lending Rate and Sustainability of MFIs

The study wanted to discover the extent to which the respondents are in agreement with given aspects of lending rate regulation as influencing MFIs sustainability. The results shows that 80% of the respondents highlighted that there is a policy prevailing against interest rate cap. It was also uncovered that 20% point out that there is no policy prevailing against interest rate cap. The views of the respondents differed as presented in figure 4.6. This observation is in line with a study carried by Mwangi (2012) which confirmed that high lending rates charged on credits are negatively correlated with the investment levels as well as financial performance. A study conducted by Esipisu (2003) disputes that interest rates caps can result to less transparency about the costs of borrowing, as moneylenders manage with ceilings by adding other fees to their services.

Figure 4.6 Respondents on policy against interest rate ceiling



Source: Primary Data

4. 10 Descriptive statistics

The descriptive statistics summaries the findings from the respondents of MFIs concerning aspects of lending interest rate and sustainability of MFIs.

Table 4.11 Descriptive statistics of lending rate and sustainability of MFIs.

	N	Mean	Std. Deviation
Interest rate controlled by RBZ adversely affect profitability of MFIs	50	4.5000	.64681
Liquidity position of an organisation adversely affects its sustainability	50	4.1400	.88086
Interest rate determine supply and demand for credit	50	4.2200	.84007
Valid N (listwise)	50		

Source: Source: SPSS computed data

The above table represented the views of respondents regarding lending rate and sustainability of MFIs. The results exposed that landing rates controlled by the Reserve Bank of Zimbabwe negatively impact on profitability of microfinance institutions (mean = 4.5, standard deviation 0.64681). Likewise, interest rate determines demand and supply for credit (mean = 4.222, standard deviation 0.84007). It was also discovered that liquidity position of the institution influence sustainability (mean = 4.140, standard deviation 0.88086). The outcomes indicates that financial institutions controls influence on the profitability which affects sustainability. These controls are caps imposed by monetary authorities on the lending interest rate. When lending rate cap enacted microfinance institutions will not be capable to generate enough interest income to cover their operating expenditures. However, high rates lead to reluctant of borrowers to acquire loans (low demand for credit). Similarly, low lending rate results to low credit supply.

The lending interest rate ascertain whether the institution is liquid enough to continue its daily operations. Therefore, monetary authorities should come up with lending rate policies that benefit both the borrower and moneylenders. The study coincides with liquidity preference theory which was first developed by Keynes (1936) where he stated that interest rate is determined by the interaction of supply and demand of money stock. The findings of the study also concurs with King (2009) asserts that by changing lending rates, the government institution is able to influence the lending rate faced by every citizen who wants to acquire a loan for economic investments.

The study sought the views of the respondents in regards to MFIs sustainability in Zimbabwe. The findings are analyzed as shown below.

Table 4.12 Sustainability of MFIs

	N	Mean	Std. Deviation
High operating income sustains an institution	50	4.3200	.79385
Donor aid do not guarantee an institution's performance	50	4.4000	.72843
Sustainability institutions has the capability to pay off debts	50	4.3000	.86307

Source: SPSS computed data

The study discovered that high operating income sustains an institution (mean = 4.302, standard deviation 0.79385). It is evident that sustainable MFIs has the ability to pay off debt (mean = 4.3, standard deviation 0.86307). The respondents also agreed that funds from donors do not give assurance of the performance of an institution (mean = 4.4, standard deviation 0.72843). The research findings also revealed that for an institution to remain sustainable it should be able to meet operating expenditure and pay off debts. Furthermore, it should be generating enough liquidity from assets to avoid depending on donor funding. The researcher discovered that sustainability of MFIs is mired by high operating cost, competition from other institutions, challenging regulations and lack of government support. The study agrees with a study conducted by Nyamsongoro (2010) asserts that financial sustainability can be described as the ability of a MFI to cover operational as well as growth expenditure from income generated from its own operations. This links with a study conducted by Dunford (2009) stated that financial sustainability is the ability to carry on with the microfinance goals without sustained donor funds

4.11 Pearson Correlation Analysis

After descriptive analysis, the researcher carried Pearson correlation analysis to present a linear relationship between lending interest rate and sustainability of MFIs in Zimbabwe.

Table 4.13 Correlation between Lending Interest Rate and Sustainability

		ROA
	Pearson Correlation	.716**
Lending interest rate	Sig. (2-tailed)	.000
	N	50

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

Source: SPSS computed data

The findings on the above table presented correlation between lending interest rate and MFIs sustainability. These findings reveals that there is positive and significant relationship between interest rates and ROE given correlation value of (R) of 0.716 at $p = 0.00$ ($r = 0.716$, $P < 0.05$). This entails that an alteration in interest rates by policymakers directly affects ROE which is a measure of MFIs sustainability. The study results agrees with a study conducted by Kadri (2012) which established out that for MFIs to balance their main goal of extending facilities (lending) and sustainability, interest rate must be handled effectively and microfinance institutions must perform in a way that their potential clients are attracted and retained.

4.12 Regression Analysis

The coefficient of linear determination for linear regression analysis evaluates the strength of the relationship between dependent variable (ROA) and independent variable (LR) through the R squared, which measures the goodness of fit. If R squared is more than 0.5 or 50% conclusion can be reached. The coefficient of variation explain how much of the ROA (dependent variable) is explained by lending rate (independent variable). The findings from the table below show how much dependent variable is explained by independent variable.

Table 4.14 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716 ^a	.512	.502	.166552399

a. Predictors: (Constant), LR

Source: SPSS computed data

The above table 4.14 show R squared of 0.512, which imply that lending interest rate (independent variable) explain 51.2% of the variability of the return on asset (dependent variable) and factors that were excluded from the model explained only 48.8% of return on asset (sustainability). The percentage contribution of R squared is more than 50% this imply the goodness of fit of the model.

4.13 Analysis of Variance (ANOVA)

Table 4.15 Analysis of variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.379	2	.6.216	12.480	.000 ^b
	Residual	13.781	28	.462		
	Total	31.062	32			

a. Dependent Variable: Return on assets

b. Predictors: (Constant) Lending rate

Source: SPSS computed data

Analysis of variance (ANOVA) was employed by the researcher to test the significance of the relation of the study variables. The findings from the ANOVA reveals in table above indicates that the relationship between the interest rate and sustainability of MFIs is significant (F = 12.480, P value = .000). This implies that interest rate significantly affect the sustainability of MFIs. The interest rate, was therefore statistically acceptable as useful variable in determining the sustainability of MFIs in Zimbabwe. This was buttressed by a P value of 0.00 which is less than 0.05 conventional value.

The results in table 4.16 below provide the coefficients of the variable used in the study which was lending interest rate.

Table 4.16: Coefficientsa for the Overall Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	18.050	.087		-1.208	.233
LR	0.439	.616	.716	7.101	.000

Source: SPSS computed data

The regression model in this study is as follows:

$$Y = 18.050 - 0.439 \dots \dots \dots \text{equation 1}$$

The results shows that the constant term is 18.050 units, entails that (ceteris paribus) holding other things constant the variables under consideration to zero, could lead to 18.050 units of returns to microfinance institutions. This could be due to other factors not considered in this study. The regression coefficient for the interest rate was 0.439 units on sustainability of MFIs.

4.14 Summary

This chapter covered the response rate from distributed questionnaires, experience and position held in the organisation from selected respondents. Thereafter, the chapter looked at the study findings and it was found that the relationship between lending interest rate and sustainability of MFIs is negative. This implies that an increase in lending rate reduce the return thus hindering sustainability.

CHAPTER 5: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study was focused on investigating the effects of interest rate regulation on sustainability of microfinance institutions in Zimbabwe. This study tried to come up with aspects of lending interest rate that impact on MFIs sustainability. The preceding chapter looked at study findings and their link to literature review. This chapter looks at the overall study and it sums up the project by presenting a summary of the research, conclusions and recommendations from the area under study.

5.2 Summary of the Study

The study was stimulated by the observation that monetary authorities enact interest rate ceiling for MFIs despite high operating costs they are exposed to in processing small loans and high cost of funds. This brought the idea to assess the effect of interest rate regulation on the sustainability of MFIs. The main objectives of the study is to investigate the effects of interest rate regulation on sustainability of MFIs.

Literature reviewed that sustainability of MFIs is affected by different aspects of interest rate regulation which includes bank interest rate controls, liquidity position, and supply and demand for credit. Empirical study looked at various researches which were conducted worldwide on how interest rate regulation impact on sustainability of MFIs. Findings from the empirical study indicated that lending interest rate regulation generally hurt the low income people by creating barriers to entry for new MFIs to emerge and making it difficult for existing ones to survive in the market.

The study adopted descriptive research design and questionnaires were employed to gather data from various respondents. Aspects of lending interest rates as affecting sustainability were measured through the Likert scale. This study also looked at factors that are considered when coming up with interest rates and different ownership structures of MFIs to understand variations on interest rates.

Lending interest rate and sustainability of MFIs have a positive and significant relationship. Pearson correlation results from the study produced ($r = .716$, $P < 0.05$). This entails that a change in lending interest rates by monetary authorities directly affects sustainability of MFIs in Zimbabwe.

Regression analysis results from the study produced a coefficient of determination (R^2) of 51.2% which was explain by independent variable (lending interest rate) to the dependent variable (ROA) sustainability which shows the goodness of fit.

The study employed analysis of variance (ANOVA) to test the significance of the association of the study variables. The findings revealed that the relationship between lending interest rate and sustainability of MFIs is significant ($F = 12.480$, $P \text{ value} = .000$). This means interest rate significantly affect MFIs sustainability.

5.3 Conclusion

Conclusions drawn from findings from the questionnaires and regression analysis model were as presented below:

- The study concluded that alterations in lending rates by the monetary authorities directly affects MFIs sustainability, thus regulation of interest rates impact on the level of sustainability of Zimbabwean MFIs. Results from regression analysis confirmed that lending interest rate regulation has a positive association with ROA.
- The study discovered that a rise in lending rates cause a reduction in the MFI return on asset thus the sustainability, since high rates scare away borrowers and run to other formal or informal players.
- However, low rates led to increase in returns since it attracts more clients or borrowers.
- Changes lending interest rates, monetary authorities are able to affect the interest rates faced by every person who wants to borrow funds for economic investment. MFIs can adjust rapidly in reaction to alteration in interest rates regulation and the total output.
- The study concluded that it is crucial for lending rates to be controlled for sustainable MFIs.
- Data collected also revealed that MFIs consider cost of funds, operating expenses, profiting and inflation as main determinants of interest rate.

5.4 Recommendations

5.4.1 Establishment of Interest Rate Policies

The monetary authorities and other policymakers should come up with better lending rates policies that will enable MFIs to be sustainability. Lending interest rates policies that are unfavourable to MFIs sustainability must be removed. Interest rates policies legislated should ensure that the cost associated with acquiring a loan from MFIs are affordable to most borrowers/clients. The government have to employ measures to monitor and control an inflation level which tend to drive the interest rate high. Furthermore, the government have to come up with ways to strengthen our currency in relation to other currencies. MFIs should be encouraged to invest in equity capital and evade unnecessary borrowing in order to remain sustainable. Moneylenders should be an effective mechanism for poverty alleviation among the less privileged groups. The government must support profitable MFIs that give loans to the poor at an affordable interest rate which is lower than the prevailing market rate.

5.4.2 Technical Assistance

Zimbabwe Association of Microfinance Institution should provide technical assistance and capacity building on grants, through addressing organisational weakness which maybe pushing loan prices high for financial products. This will mainly increase efficiency as a result lower operating cost which have been the main contributor to high interest rates. Areas which may need staff skill development and loan advancement development for staff, and technical assistance include information and technology (computer hardware and systems and loans systems).

5.3.4 Development of Cordial International Associations

MFIs need to turn to global focus when it comes to business associations so as to attract direct offshore lines of credit or funding. This guarantees MFIs cheap sources of finance when local sources are expensive or when there is low money supply in the economy. This has a direct impact on interest rates that will be charged when granting a loan facility to a borrower. When cost of funds are lower, it is evident that the interest rates will also be lower when advancing loans.

5.3.5 Recommendations for Further Studies

This study was focused on MFIs in Zimbabwe. It is therefore recommended that a study covering traditional financial institutions such as commercial banks should be undertaken to better understand the effect of interest rate regulation on sustainability of banking industry which is key for economy growth.

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Appendix A: Introductory Letter

MIDLANDS STATE UNIVERSITY



Faculty of Commerce

Department of Banking and Finance

Dear Sir/Madam

RE: LETTER OF INTRODUCTION

I am Archiford Warikandwa (R144690E) a final year student at the above institution studying towards completion of an honours degree in Banking and Finance. I am carrying this research on **the effects of interest rate regulation and sustainability of MFIs in Zimbabwe**, with the aim of finding the effects that are triggered by interest rate regulations on sustainability of Microfinance Institutions in Zimbabwe. The research is being carried in partial fulfillment of the requirements of the afore mentioned programme. I am kindly requesting answering of all questions to best of your knowledge. Your responses will be accorded the highest level of **CONFIDENTIALITY** and used **ONLY** for the purpose of this study.

You are advised to remain anonymous.

Thank you for your cooperation and time

Appendix B: Questioners for Microfinance Institution

Please kindly fill or tick the following questions

PART A: Background Information

1. How long have you worked in your organization

a. 0-2 years b. 2-4 years

b. 5 years and above

2. Please indicate your designation

a. Branch manager b. Loan officer

c. Loss officer d. Administration officer

3. Please highlight if there is a policy against interest rate caps

Yes

No

PART B: Effect of Lending Interest Rate on Microfinance Institution’s Profitability

Please indicate the extent of your agreement or disagreement with the following statements. Use 1-Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree and 5- Strongly Agree

	1	2	3	4	5
Interest income has increased since the law came into effect.					
Interest rate regulations has led to an increase in MFI profitability					
Regulation of interest rates has led to reduction in liquidity or funds available for lending.					
The default rate has increased since the law came into effect.					
Other microfinance charges have increased since the law came into effect					

4. In what ways does lending interest rate regulation affect profitability of MFIs?

.....

PART C: Effect of Interest Rates on Supply and Demand for Credit

Please indicate the extent of your agreement or disagreement with the following statements. Use 1- Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree and 5- Strongly Agree.

	1	2	3	4	5
The institution had many borrowers before the interest rate regulations					
The number of approved loans have increased since the law came into effect.					
The number of new borrowers has increased since the lending interest rate regulation come into effect.					
The institution slowed down on lending since the interest rate cap come into effect.					

9. In what ways does interest rate regulation affect supply and demand for credit?

.....

.....

.....

PART D: Features of lending interest rate as affecting the sustainability of Microfinance Institutions.

Please indicate the extent of your agreement or disagreement with the following statements. Use 1-Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree and 5- Strongly Agree

	1	2	3	4	5
Interest rate controlled by RBZ adversely affect profitability of MFIs					
Liquidity position of an organization adversely affects its sustainability					
Interest rate determine supply and demand for credit					

PART E: Sustainability

10. To what extent do you agree or disagree with the following with regard to sustainability procedures? Use 1- Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree and 5- Strongly Agree.

	1	2	3	4	5
High operating income sustains an organization.					
High sustainable organization has the ability to pay off debt					
Funds from donors guarantee an organization’s performance					

PART E: Factors to be considered when setting interest rate of MFIs

11. What factors do you consider when pricing loans of your institution?

Funding cost

Operating expenses

Inflation

Profits

12. What other factors does the MFI consider when setting interest rate?

.....

.....

.....

Thank you for participating in this study.

Appendix C: Raw Data

ROA	LR
12.09%	20.00%
14.11%	7.00%
14.11%	7.00%
16.12%	7.00%
18.14%	12.00%
20.15%	7.00%
23.18%	8.00%
23.18%	9.00%
25.19%	9.00%
25.19%	15.00%
27.21%	9.00%
27.21%	9.00%
27.21%	10.00%
28.22%	10.00%
28.22%	10.00%
29.22%	12.00%
31.24%	12.00%
33.26%	12.00%
36.28%	12.00%
38.29%	12.00%
40.31%	12.00%
41.32%	13.00%
42.33%	13.00%
44.34%	13.00%
46.36%	14.00%

50.39%	14.00%
51.39%	14.00%
51.39%	14.00%
53.41%	14.00%
56.43%	14.00%
57.44%	14.00%
58.45%	15.00%
61.47%	15.00%
61.47%	15.00%
63.49%	16.00%
64.50%	17.00%
64.50%	17.00%
64.50%	17.00%
68.53%	17.00%
72.56%	17.00%
73.56%	18.00%
76.59%	18.00%
77.60%	18.00%
78.60%	18.00%
81.63%	18.00%
82.63%	19.00%
83.64%	19.00%
89.69%	19.00%
92.71%	20.00%
93.72%	7.00%