THE EFFECT OF INTEREST RATES ON DEMAND FOR CREDIT BY SMALL MEDIUM ENTERPRISES IN NAIROBI COUNTY

BY

LYDIAH N. ZACHARY

REG NO: D61/73826/2012

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF BUSINESS ADMINSTRATION IN THE UNIVERSITY OF NAIROBI

AUGUST, 2013

DECLARATION

DECLARATION BY THE CANDIDATE

I do declare that this research project is my original work and has not been presented to any academic institution for any award.

SIGN _____   DATE _____

LYDIAH NYABOE ZACHARY

D61/73826/2012

DECLARATION BY THE SUPERVISOR

This research project has been submitted to the University of Nairobi by my authentication as the University research supervisor.

SIGN_____   DATE_____

DR. JOSIAH ADUDA

CHAIRMAN

DEPARTMENT OF FINANCE AND ACCOUNTING

SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

DEDICATION

I dedicate this work to my dear husband Eng. Reuben Olela and my two sons Benny Hinn Olela and John Praise Olela for their invaluable support in my studies. To my dad Mr. Zachary Ikobe and mum Mrs. Christine Kwamboka. I love you all for giving me the courage and determination to wither the storms of the course. God Bless You.

ACKNOWLEDGEMENT

I take this opportunity to thank the almighty God for enabling me to undertake the Master of Business Administration course and guiding me through to the end of this project. Special thanks and appreciation goes to my supervisor, Dr. Josiah Aduda for the support, advice, guidance, encouragement and tireless effort he gave to me during this entire research period. I also acknowledge my lecturers and fellow students for their contributions towards this research.

Finally I am grateful for the invaluable support offered by anyone else that may have been directly or indirectly involved and formed a basis for which this research was conducted. To all may God bless you.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

CBD   -   Central Business District

CBS   -   Central Bureau of Statistics

CEO   -   Chief Executive Officer

GDP   -   Gross Domestic Product

GOK   -   Government of Kenya

ILO   -   International Labour Organization

MBA   -   Master of Business Administration

MFIs   -   Micro-Financial Institutions

MIX   -   Micro-Finance Information Exchange

MSEs   -   Micro-Small Enterprises

MSME   -   Micro-Small and Medium Enterprises

SMEs   -   Small Medium Enterprises

SPSS   -   Statistical Package of Social Sciences

ABSTRACT

In Kenya, most SMEs use credit from the MFls to finance their operations. This study sought to evaluate the effect of interest rates on demand for loans by SMEs in Nairobi County. To achieve this objective, the study employed a correlation research design. Data was collected using a semi-structured questionnaire from SMEs in Nairobi County. A total of 50 questionnaires were administered to various SMEs but the researcher managed to obtain 48 completed questionnaires representing a response rate of 96% .The researcher adopted a drop-and –pick-later approach where questionnaires were issued in the morning and picked in the evening to allow the respondents to complete the questionnaires.

The collected data was edited, coded and entered for analysis using the Statistical Package for Social Sciences (Version 17.0) computer package. Both descriptive and inferential statistics were used. The research findings revealed that there was a very strong positive relationship (R= 0.932) between demand for credit, interest rate, annual profit and owner's equity. The study also revealed that 86.9% of demand for credit by SMEs in Nairobi County could be explained by interest rates. From this study it was evident that at 95% confidence level, the variables produced statistically significant values and can be relied on to explain demand for loans by SMEs from lending institutions. The findings further revealed that effective interest rates, annual profits and owners' equity explained demand for loans in that order. The research findings were presented in pie charts, bar graphs, and tables for clarity. The findings of this study will be of great use to the government, lending institutions in formulating credit policies so as to promote the uptake of credit facilities in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Microfinance has been hailed by many to be one of the most effective tools in fighting global poverty in the developing world. It has been especially effective and beneficial in bringing products such as savings deposits, insurance and credit to the un-served and under-served sections of developing and transitional economies, those that do not possess the collateral or credit histories to satisfy the requirements of traditional financial services. In so doing microfinance aims to "create economic and social development from below."Microfinance, however, possesses many inner issues that hinder its ability to be more effective. One of those issues, and one of the things that seem to shock the newly initiated to microfinance the most is the interest rate level. Interest rates charged by microfinance institutions (MFIs) on loans to the poor have traditionally been very high compared with the levels offered through more established financial services in the developed world. This is because it costs more to service a tiny loan than a larger one. The realization of the high rates has prompted several obvious questions. Why are microfinance interest rates so high? What are the effects of both those high levels and of a more reduced level on demand for credit? These are a few of the questions that this paper aims to address (Julien K, 2009).

Rosenberg, Gonzalez and Narain (2009) argue that over the past two decades, institutions that make microloans to low-income borrowers in developing and transition economies have focused increasingly on making their lending operations financially sustainable by charging interest rates that are high enough to cover all their costs. They argue that doing so will best ensure the permanence and expansion of the services they provide and address the problem of administrative costs that are inevitably higher for tiny micro lending than for normal bank lending. Consequently, interest rates in sustainable microfinance institutions (MFIs) have to be substantially higher than the rates charged on normal bank loans. As a result, MFIs that claim to be helping poor people nevertheless charge them interest rates that are considerably above the rates richer borrowers pay at banks. No wonder this seems wrong to observers who do not understand, or do not agree

with, the argument that MFIs can usually serve their poor customers best by operating sustainably, rather than by generating losses that require constant infusions of undependable subsidies.

1.1.1 Interest Rates

Kimutai (2003) defines interest rate as the price one pays for using borrowed money (loans).In money – monetary economies money creates claims because it is an asset, store of value as well as a medium of exchange. Therefore those who lend money expect to be compensated for handing over their claims for the period of the loans to those who borrow money. This interest rate also covers the expose to credit risk by lenders. Therefore interest rate can be defined as the price lenders expect (and borrowers pay) for exchanging current claims for greater future claims to goods and services. Interest rates represent the cost of money.

Ingram (2011) states that interest rates are important because they control the flow of money in the economy. High interest rates curb inflation but also slow down the economy. Low interest rates stimulate the economy, but could lead to inflation. When interest rates are high, people do not want to take loans out from the bank because it is more difficult to pay the loans back, and the number of purchase of real assets goes down. The opposite is also true. The effects of a lower interest rate on the economy are very beneficial for the consumer. When interest rates are low, people are more likely to take loans out of the bank in order to pay for things like houses and cars. When the market for those things gets strong, price decreases and more people can purchases these things. This also bodes well for investors, who perceive less risk in taking out a loan and investing it in something because they would have to pay less back to the bank. When people do not have to spend as much money on bank payments, they have more disposable income to put toward things they want to purchase. These effects, although certainly not direct, are enough to stimulate the market when interest rates are low. Low interest rates are not beneficial for lenders, who are seeing less of a return on their loan than in times when interest rates are high. This means that banks may find themselves having to lower the interest rates accrued on money deposited in the bank in order to maintain a steady profit.

However, interest rates do not really have an effect on how much people save, because an increased amount of disposable income means that they are more likely to spend it than to save it. When interest rates increase, though, foreign investment can increase because people outside of the country want a larger return for their investment and they are more likely to get it in a state of high interest rates. This causes more demand for the dollar, driving up its value in the international market. The opposite happens, though, when the interest rates are decreased. Although much of it is contained within consumers' perception of the economy and their income, interest rates can drive up consumer spending, investment and the amount of loans people take out of the bank.

1.1.2 Credit Demand

The Columbia Encyclopedia defines credit as the extension to individuals of small loans to be used for income-generating activities that will improve the borrowers' living standards. The borrowers, most of whom usually are poor women, do not qualify for a conventional bank loan, and the loans, which may be as little as $20 for very poor borrowers in some developing countries, typically are for a short term (a year or less), are not secured by collateral, and require repayment in weekly installments. Credit is an important commodity for improving the welfare of the poor in their micro-economic activities especially in developing countries. In the Kenyan economy, most of small-scale enterprises are operated within the informal sector which covers all semi-organized and unregulated economic activities that are small scale in terms of employment. It's economic contribution is more than double that of medium and large enterprise sectors that stands at 7% of the country's GDP (CBS-GoK, 2003). The sector therefore is a major source of demand for credit, employment and income to many households in Kenya.

The role of credit is basically to bridge the gap between business owner's financial assets and the required financial assets of the business/enterprise. Usually there is an imbalance between the two hence creating the demand for credit. Aryeetey *et al* (2004) argues that demand for credit can be generally categorized into perceived, potential and revealed demand. The perceived demand occurs when enterprises assume to be in need of cash, or are in a financial constraint. Potential demand on the other hand is one that is characterized by the desire for credit which is not actualized due to market imperfections

and institutional barriers. Revealed demand is characterized by a written application for financial support at a given rate of interest. This study corresponds with this categorization of demand for credit. However in the case of revealed demand, not every application for credit is necessarily translated into effective demand. Gale (1991) defined effective demand as the amount of loans that lending institutions are prepared to release to borrowers.

1.1.3 Interest Rates and Demand for Credit by SMEs

It is commonly believed in the field of microfinance that borrowers are not too sensitive to the level of rates at which they borrow as they care mostly about access to funding. A few years ago, it was believed that access to funding was much more important to borrowers than rates, because their micro businesses had a very high profitability – provided they could get the working capital to start them. The recent research by Compartamos (highest micro lender in Latin America) looked at the impact on demand when lending rates are 10% lower for a loan. The study suggests that credit demand from current and from new borrowers is indeed elastic to pricing: borrowers care about rates. Other key findings are that lower lending rates increase financial inclusion by attracting new borrowers and that the elasticity of demand increases over time (borrowers become more sensitive to pricing over time).

From the perspective of borrowers, lower rates can increase the potential demand for loans and financial inclusion, while excessive rates can push borrowers into over-indebtedness. From the perspective of microfinance institutions (MFIs), lower rates can make them more dependent on donors' money while high rates can lead to higher regulatory scrutiny and attract the worst borrowers (adverse selection). The question around fair rates is therefore key to policymakers and MFIs.

Most micro-finance institutions in Kenya charge interest rates that range from between 1.8 per cent to 2.5 per cent per month. Others, on the other hand, charge at least 0.5 per cent per week. This translates to between 21.6 per cent and 30 per cent per year. The institutions have repayment periods of weekly and monthly depending on the size of the loan, lending rules and how one agrees with other members of the group ran by the micro-finance institution, who jointly act as guarantors of the loan. Moreover, since most

of the loans offered by the institutions do not have grace period, borrowers start servicing the loans as soon as they receive them.

All this means that interest rates from micro-finance institutions are higher than that of most commercial banks, whose lending rates are between 21 per cent and 24 per cent. The institutions lowered their rates by 1.5 per cent after the Central Bank of Kenya (CBK) reduced its benchmark-lending rate by the same percentage point in July following a drop in inflation to below 10 percent and stabilization of the shilling. But while banks cut their lending rates, micro-finance institutions which are normally funded through concessionary loans from international financial institutions did not since many were not affected by CBK's move.

1.1.4 SMEs in Nairobi County

There are various definitions of an SME. According to Sessional Paper No. 2 (2005) an SME is defined as an enterprise with between 1 to 50 employees, the World Bank defines an SME as one that fits to either of the following criteria that is to say: (1) A formally registered business (2) with an annual turnover of between Kenya Shillings 8 to 100 million (3) an asset base of at least Kenya Shillings 4 million and (5) employing between 5 to 150 employees. The MSME Bill 2011 has used 2 criteria to define SMEs in general that is: (a) the number of people/employees and (b) the company's annual turnover. For enterprises in the manufacturing sector, the definition takes into account the investment in plant and machinery as well as the registered capital.

It is therefore evident that these definitions vary in terms of number of employees, level of investment, total asset and turnover. This shows that there is no consensus on the issue of definition of SMEs. It may not be appropriate to differentiate the scale of operations of the enterprises given the changes in the value of the domestic currency, heterogeneity of assts and variations in turnovers. For these reasons, the study will adopt the definition of SMEs based on the number of employees ranging between one and twenty. Data available from the Ministry of Trade and Ministry of Industrialization, (2011) reveal that there are 2500 SMEs in Manufacturing, 1500 SMEs Trading and 560 SMEs in the service industry (RoK, 2012). This makes a total of 4,560 SMEs in Nairobi County. Nairobi is

the leading economic hub of the country and SMEs have played a crucial role in the economic growth of the county. SMEs operating in different sectors earn billions of revenue for the county. These SMEs have therefore lowered the unemployment levels in the city. The Government through the Youth enterprise fund has enabled many youths to start and own businesses.

The Economic Survey, (2009) indicates that developing countries with large informal or micro enterprise sectors, SMEs constitute the middle of the size range, a fact that explains much of their strategic importance. It is estimated that there are 7.5 million SMEs in Kenya, providing employment and income generation opportunities to low income sectors of the economy. The Sector has continued to play an important role in the economy of this country. The sector's contribution to the Gross Domestic Product (GDP) has increased from 13.8 per cent in 1993 to about 40 per cent in 2008. The Small Enterprise Sector or Informal Sector provided approximately 80% of total employment and contributed over 92% of the new jobs created in 2008. The sector therefore plays a key role in employment creation, income generation and is the bedrock for industrializing the Country in the near future.

1.2 Research   Problem

Mcloughlin (2013) states that for some time, policymakers have been concerned about the effects of the seemingly high interest rates typically charged by microfinance institutions (MFI) lending money to poor people. Available data indicates that microfinance interest rates typically fall between 20 per cent and 50 per cent per year (in places where inflation runs no higher than 10 per cent per year). It has been argued that such interest rates can erode surpluses generated by borrowers, leaving them with little net gain. There is also concern that high rates reduce the demand for and uptake of financial services. As Dehejia, Montgomery and Morduch (2012) point out, where these effects are seen, high interest rates can undermine 'the original intention of the push for microfinance'.

However, Stewart *et al* (2010) point out that, whilst some studies allude to negative impacts of high interest rates, there is a general paucity of rigorous impact studies on this topic. The literature concerned with the 'fairness' of interest rates has largely adopted a supply-side perspective and there is limited literature on the impact of interest rates from

the borrower perspective. Duvendack *et al*, (2011) and Stewart *et al*, (2010), argue that the limited available literature tends to focus on two main issues: the effects of high interest rates on demand for credit (or credit elasticity), and the effects on over-indebtedness. In both instances, research mainly takes the form of country-specific case studies. Recent systematic reviews which have looked at the impact of credit on users reveal little about the role of interest rates, and this has not been a key research question for these studies.

Cooper (2012), in his study indicated that SMEs in Nairobi depend on micro financing for growth. Muthoka (2012) also found that SMEs benefit from loans from microfinance institutions, and they seek financial assistance from the MFIs due to interest rate, easy loan repayment and amount offered. Munene (2009) found out credit bureaus enabled the lenders assess credit worthiness, ability to pay back a loan, and this affects the interest rate and other terms of a loan. Bett (2013) conducted a study, to find out the effects of lending interest rates on profitability of savings, credit and cooperative societies in Kenya. He found out that lending interest rate of Saccos is positively correlated with profitability. This implies that they move together without impacting negatively the demand side of the loanable funds.

In Kenya, most SMEs use credit from the MFls to finance their operations. According to Mwindi (2002), higher amounts of credit granted to SMEs are charged higher levels of interest rates but enable them to meet more of their planned operations. This results in higher profitability to the MSEs hence a positive relationship exists between the interest rates charged by MFls and the profits of the MSEs mainly because of the amount of credit associated with these high interest rates. It is therefore evident that the above mentioned local studies have focused more on the impact of Microfinance on growth and performance of SMEs in Kenya. However no study has been done to investigate the correlation between interest rates and demand for credit by SMEs in Nairobi County.

1.3 Research Objective

The objective of this study was to establish the effect of interest rates on demand for credit by SMEs in Nairobi County.

1.4 Value of the Study

The results of this study are expected to play an important role by providing the information necessary in the relevant areas to relevant stakeholders.

An analysis of the effect of interest rates on demand for credit by SME borrowers would help policy makers to formulate successful credit policies with regard to interest rates and programmes that enable them to allocate scarce financial resources to the development of basic sectors of the economy. It also pinpoints that the government through the Central bank of Kenya should effectively regulate the microfinance sector to improve/promote the development of SMEs in Kenya.

The study will also be useful to the Management practice in the microfinance sector. The research will help the MFIs to identify the possible ways of determining competitive interest rates that will reduce the high default rate due to high repayment interest rates. The findings of this study will enable credit consumers to make informed decisions on the interest rates charged by MFIs and the appropriate loan sizes to apply for.

The study will prove important in providing information to scholars and academicians especially those in the field of finance and banking who may wish to conduct further study on this subject area and other related aspects of this study.

The study will also contribute to the body of knowledge.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review. First a review of theories is presented highlighting on the theories on interest rates. Secondly, a review of empirical studies that are related to the interest rates charged by various lending institutions and their effect on demand for credit is made. The summary and conclusion on the literature reviewed is also indicated as well as the research gap therein.

2.2 Theoretical Review

In the study of economics and finance there are several theories that attempt to explain how interest rates affect economies and how they can be used to forecast future changes. These theories include classical, liquidity reference, loanable funds and rational expectations theories. Each of these theories makes assumptions regarding the behavior of aspects of the economy and focuses on the behaviors of other aspects as determinants of the prevailing interest rates (Gorder 2009).

2.2.1 Classical Theory of Interest Rates

The classical theory of interest rates applies the classical theory of economics to determining interest rates. It defines the interest rate as the element that equates savings to investment. The theory compares the supply of savings with the demand for borrowing. Using supply and demand curves the equilibrium rate is calculated by determining the curves intersection point. Thus if savings are greater than investments the interest rate drops until they reach equilibrium and vice versa, if savings are less than investment the interest rate increases until the reward for savings encourages increased savings rates causing the market to again reach equilibrium(Gorder 2009).

Other proponents of the classical theory of interest rates look at it differently. Marshal argues that interest rate is the price paid for the use of capital and that it is determined by the intersection of aggregate demand and supply of capital. According Keynes, interest rates definitely influences the marginal propensity to save. He concludes that the rate of interest should be at a point where the demand curve for capital at different rates

intersects the savings curve at a fixed income level. However the classical theory of interest rates fails to account for factors besides supply and demand that may affect interest rates such as the creation of funds, the importance of income and wealth and changes in the primary borrowers in an economy.

2.2.2 Liquidity Preference Theory

Liquidity preference theory asserts that economic units have a preference for liquidity over investing. Applying this theory explains the premium offered in forward rates in comparison to expected future spot rates. This premium is used as payment for the use of scarce liquid resources. The preference for liquidity can be accounted for by the fact that economic units need to hold certain levels of liquid assets for purchase of goods and services and the fact that these near term future expenditures can be difficult to predict.

Liquidity theory is limited by its short-term nature, the assumptions that income remains stable, and, like classical theory, only supply and demand for money are considered (Gorder 2009).

2.2.3 Loanable Funds Theory

Loanable funds theory was developed by Swedish economist Knut Wicksell (1851-1926). It assumes that interest rates are determined by supply of loanable funds and demand for credit and that there exists an inverse relationship between the loanable funds and the interest rates. If both the demand and Supply of loanable funds change, the resultant rate would depend on the magnitude of movement of the demand and supply of the loanble funds. In this theory the demand of loanable funds originates from domestic business, consumers, governments and foreign borrowers.

While the supply is generated by domestic savings, dispersion of money balances money creation in the banking system and foreign lending. With these factors determining long-term interest rates, short term interest rates are decided by financial and monetary conditions in the economy (Gorder 2009).

2.2.4 Rational Expectations Theory

According to Gorder (2009) the rational expectations theory of interest rates is based on the idea that people formulate expectations based on all the information that is available

in the market. Rational expectation theory holds that the best estimation for future interest rates is the current spot rate and that changes in interest rates are primarily due to unexpected information or changes in economic factors.

The rational expectations theory can be incorporated with the loanable funds theory in order to better consider the available information with the economy. The limiting factors of rational expectation theory are mostly related to the difficulty in gathering information and understanding how the public uses its information to form its expectations.

2.3 Review of Empirical Studies

Empirically, research on the use of credit by rural households tends to suggest that although it is not obvious that demand for credit far outweighs the supply, there are significant obstacles to the transformation of potential demand into revealed demand (Aryeetey, 1996). Studies carried out by International Labour Organization (ILO) following financial crises in East Asia (Mark 2003), on financial support for micro and small enterprises in Thailand, revealed that 36% of these enterprises had difficulties in arranging start-up funds, 55% had funded their enterprises with their own funds, 17% obtained funds from government subsidized programmes and 20% of the survey group had borrowed from a bank.

Gok-CBS (1999) also indicates that out of the interviewed group, 10.4% had received credit from different sources. On overall, 89.6% of the small enterprise operators had never received credit. In Zimbabwe, a similar pattern emerged 89% of the small-scale operators had never received loan for business purposes, 10% received credit from family or friends, 1% from formal credit institutions and less than 1% from money lenders (McPherson *et al*., 1998). Despite the liquidity constraints, demonstrated in these surveys, credit borrowing from formal credit markets seems to be low amongst small-scale business operators.

Kimuyu and Omiti (2000), found that low levels of credit demand by enterprises in rural Kenya is a response to a credit supply constrain and an outcome of the spatial structure of the credit market. It also shows that some of the relatively large urban centers such as Mwatate in Coast Province of Kenya, entrepreneurs had not heard of some of the more

popular microfinance institutions. Using descriptive statistics and simple regressions (logit estimates and OLS analysis), there were observed differences in the amounts borrowed by entrepreneurs in different business activities and in the level of loan applications in relation to gender, location of enterprise and formality status of the enterprises. These factors were reported to be complimented by entrepreneur's age, educational achievements, membership in support groups and enterprise size.

However, Mpuga (2004) analyzed demand for credit in rural Uganda and the findings were that rural households are at a disadvantage in terms of demand for credit. Whereas being in the rural area has no significant impact on the probability of applying for credit and the success of the application, loan applications for individuals from the rural areas are about 44% smaller in magnitude than that of those in the urban areas.

Atieno (2001) pointed out that access to credit by borrowers can be explained in terms of credit rationing behaviour of lending institutions. Atieno's study used mainly descriptive statistics to analyze the role of institutional lending policies of formal and informal credit institutions in determining access to and uses of credit facilities by small-scale entrepreneurs in rural Kenya. Reports from a randomly selected sample of 334 respondents indicated that 15% had not applied for credit because they had no need for credit therefore classified as not credit constrained. 36% were credit constrained but had not also applied for credit. From the research findings, the major reasons for not seeking credit were lack of information about credit and lack of required security. Only 49% revealed their demand by applying for credit.

Amongst this number there were those whose loan applications were rationed and did not get the total amount they applied for. A comparison of the amount applied for and amount received showed that the amount applied for was significantly higher than the amount received from both formal and informal sources suggesting credit rationing in the credit market.

Swain (2002) hypothesized that some of the households with positive demand for credit are not rationed at all, whereas, others are either quantity rationed or loan size rationed. Using a theoretical model, Swain takes household as the unit of analysis and measures

demand for credit variable as a dummy. The research findings show that in addition to household characteristics, interest rate, land ownership and the area of business operation are also significant determinants of demand for credit.

According to Swain (2002) loan quantity rationing arises when the potential borrower is denied credit while loan size rationing occurs when the loan amount received by the borrower is smaller than the one they demanded. Credit rationing has been found to influence credit demand to small-scale investors as reported by Okurut (2004). The research focused on identifying factors that influence credit demand and also those that result in the poor being rationed by lenders in Uganda. Using logit regressions, analysis of credit demand was performed at individual levels with dataset containing social economic characteristics of households. The findings reviewed that it is possible most small-scale entrepreneurs who seek credit would be able to obtain it, but costs and conditions may be prohibitive for the high risk borrowers. Lenders determine how much credit is allocated based on the probability of default, often resulting in credit rationing.

2.4 Demand for Credit by SMEs

The concept of credit was developed in 1976 by Muhammad Yunus, a Bangladeshi economist, as a means of alleviating the poverty and improving the lives of the very poorest inhabitants of Bangladesh. The Grameen Bank, formally established in 1983 through Yunus's efforts, expanded credit with the help of loans and grants, and is now self-supporting. Credit programs and institutions have been created in many other nations in Asia, Africa, and Latin America. Similar programs have been established to aid individuals in developed countries who do not qualify for conventional loans.

Because of the high cost, relative to the loan size, of running a credit program, interest rates on credit loans are high, sometimes as much as 35%; in the case of credit loans by commercial institutions, the rates may be even higher. Peer support groups consisting of other borrowers are often a component of credit programs, and help ensure that the borrowers repay the loans.

Amonoo *et al* (2003) in their study states that the debate on whether high interest rates affect demand for credit is inconclusive and may go indefinitely. They further state that

there are two main schools of thought. The first school comprising of Weiss (1981), Stiglitz (1989) and Besley (1994), argue that high interest rates encourage adverse selection of loan seekers. Those who take high risk and get their loans approved usually have high default rates. The second school of thought state that high interest rates do not affect demand for credit. The study by Aryeetey *et al* (1994) indicates that the high int rates were not a major concern for SME borrowers. In that study the SMEs considered an average annual interest rate of 19.5% to be fair and reasonable. This fell below the minimum market rate at that time by 7%.

In Kenya, access to affordable micro finance is a key plan in the fight against poverty. Equity Bank CEO during a press release in Nairobi Kenya said that unless the rural majority poor were facilitated to access affordable credit, the attainment of the Millennium Development Goals would remain a big challenge. Microfinance institutions should therefore focus on the "bottom of the pyramid" the low income earners and micro and small enterprises to bring about social transformation and improve the standards of living of the poor. Equity bank in Kenya is one of the banks that offer microfinance services and has invested heavily in micro credit after the realization that there was a substantial, and largely unmet, demand for cheap credit.

2.4.1 Interest Rates and Demand for Credit

Helms and Reille (2004) drew on available literature to ask whether and how poor people can afford high interest rates. They put forward a number of arguments that question the extent to which high interest rates necessarily hurt the poor, including the following. The poor generally consider ongoing access to credit more important than the actual cost of the credit; Studies show that clients benefit from microfinance loans, and that they can and do repay loans; The higher costs of credit have not necessarily excluded poor customers; Data from the MIX indicates leading MFIs have succeeded in reaching large numbers of poor clients; Alternatives to credit tend to be very expensive moneylenders, input suppliers, inflexible and risky local savings circles, or nothing at all; It is common for moneylenders to charge effective interest rates well in excess of 10 percent per month.

In a study by Karlan and Zinman (2008) there is an argument that there has been an assumption of 'price inelastic demand' (meaning the poor are largely insensitive to interest rates) amongst policymakers. This has provided a foundation for encouraging MFIs to run at sustainable (profitable) interest rates on the basis that it is unlikely to reducing poor people's demand for, or access to credit. To test this assumption, they used an experimental research design to measure the effects of rate fluctuations (of between 50-200 per cent) on uptake of loans by new and existing customers in the case of a South African lender. The study found demand curves were gently downward sloping throughout a wide range of rates below the lender's standard ones, but that demand sensitivity rose sharply at prices above the lender's standard rates. Lower rates produced more borrowing by poor females in the sample. Higher rates also reduced repayment. They also found that 'loan price is not the only contracting parameter that might affect demand, and hence MFI profits and targeting. Liquidity constrained individuals may respond to maturity as well, since longer maturities reduce monthly payments and thereby improve cash flows'. In fact the study found that maturity 'may actually be more influential than price in determining demand for credit if individuals are more concerned with monthly cash flows than interest expenses'. In reviewing this study, Roodman (2011) points out that the subjects of the study lived well above standard poverty lines of $1 and $2 a day, and their successes revolved around employment, not entrepreneurship.

In a recent study, Dehejia, Montgomery and Morduch (2012) similarly challenge what they see as a widely-held view among experts in the field that interest rates should be set at profit-making levels on the basis that poor customers are primarily concerned with seeking *access* to credit, but are not necessarily as concerned with getting 'cheap' credit. They argue this assumption is questionable because there is very little evidence of how interest rates affect demand for credit in poor communities. In particular, there are unanswered questions about whether poorer customers are deterred from accessing credit because of higher rates, or whether they are able to pay them. In their case study of the microlender *Safe*Save, operating in the slums of Dhaka, they show that poor households are in fact sensitive to price changes. An unexpected price increase, from a real interest rate around 18 per cent per year to a real rate of around 30 per cent per year (in line with the prices charged by other major Bangladeshi microlenders), did affect demand and use

of credit services. Elasticities of loan demand with respect to changes in the interest rate ranged from − 0.73 to − 1.04 during the twelve months after the price increase. Moreover, in response to interest rate increases, users altered the way they borrowed taking advantage of *Safe*Save's flexible lending policy by taking small and more frequent loans and repaying them more quickly. The authors note that it is important to acknowledge that *Safe*Save did achieve financial stability as a result of the interest rate increase. They suggest that future studies might better explore the heterogeneous impact of interest rate increases on demand for loans.

Rosenberg, Gonzalez and Narain (2009) argue that although interest rates have been the centre of debate about credit pricing, and have received the most attention, they are not the only cost that the poor pay in obtaining loans. They emphasize that it is important to keep in mind the other transaction costs for the borrower, including spending time away from their businesses, transportation expenses, and the negative impact of delays in receiving loan funds. These costs are less easily quantifiable but may factor into the decisions that borrowers make about where they choose to obtain loans. In this sense, interest rates are not the only factor that affect demand for and access to loans.

2.5 Interest Rates

The main objective of an MFI is to provide poor and low income households with an affordable source of financial services. Interest charged on loans is the main source of income for these institutions and, because they incur huge costs, the rates are correspondingly high. Operationalizing interest rates in the context of demand for credit by SMEs shows interplay of several factors: the cost of funds, the MFI's operating expenses, loan losses, and profits needed to expand their capital base and fund expected future growth. Many policy makers question why microfinance interest rates remain high even when MFIs receive concessional funds to finance lending. Although micro lenders receive loan funds at concessional rates, they must cost these funds at market rates when they make decisions about interest rates to ensure the sustainability of the institution's operations. Donors provide concessional funds for a particular usage only for a limited period, as do some governments. However, concessional funds cannot be considered a permanent source of funds for MFIs, and provision must be made through interest rates to

sustain the lenders' operations. Inflation adds to the cost of microfinance funds by eroding microlenders' equity. Thus, higher inflation rates contribute to higher nominal credit interest rates through their effect on the real value of equity (Fernando N, 2006).

In an opinion piece, Nobel prize winner Muhammed Yunus (founder of the Grameen Bank), recommended the maximum interest rate charged by MFIs should not exceed the cost of the fund meaning the cost that is incurred by the bank to procure the money to lend plus 15 per cent of the fund. However, Gonzalez (2010) argues that although Yunus' methodology is appealing in its simplicity, he stresses that costs vary between loan size and with difficult-to-reach clients (for instance, the very poor or those who live in sparsely populated areas). Roodman (2011) has similarly stressed that it is very difficult to determine a 'fair' rate by looking at cross-national data, partly because of the different costs associated with providing loans in different regions of the world. He notes that Yunus's ceiling effectively categorizes three quarters of today's creditors as 'moneylenders and loan sharks'.

A study done by Wangui (2011) on the factors that influence demand for credit among small scale investors in Meru showed that education level of an entrepreneur, the number of dependants, and household income are significant factors that influence small-scale entrepreneurs to borrow credit from formal credit institutions. Nyabwala (2010) also conducted a study to investigate the impact of microfinancing on performance of small and medium enterprises (smes') in Kisumu central business district the findings include the opinion of poor loan repayers being willing to higher interest rates that commercial banks as long as access to credit was provided.

2.6 Conclusion

The review of literature has shown some theoretical and empirical gaps that necessitate this study. The direct link between effects of interest rates charged by MFIs to borrowers and the demand for credit did not come out clearly under the studies reviewed. Therefore this study aims at addressing this gap by examining the effect of the interest rates charged by lending institutions on credit demand by SMEs in Nairobi County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section gives a detailed analysis of the research design, target population, sampling technique, data collection instruments and procedures and data analysis.

3.2 Research Design

A Correlation research design was undertaken in order to ascertain reliability of data collected so as to describe the relationship between the variables of interest in the study and consequently test the research hypothesis. This is consistent with other previous researches that have successfully been analyzed using the same design and proven appropriate, Mpuga, (2004), Kimuyu and Omiti (2000) and Atieno (2001).

3.3 Population

There are 4560 SMEs in Nairobi County who are registered by Ministry of Industrialization and Ministry of Trade. This study therefore targeted all the SMEs operating within the Nairobi County. This in accordance to Mugenda and Mugenda (2003), who states that the target population should have some observable characteristics to which the researcher intends to generalize the results of the study.

3.4 Sample

A sample of 50 SMEs was drawn from the list of all the registered SMEs operating within the Nairobi County. This sample size represented the study target population. According to Saunders *et al* (2003) a sample size of 30% was sufficient for social science research. The researcher used stratified random sampling on classify the SMEs into Manufacturing, trading and service strata, after which Purposive sampling was used to select respondents who were thought to be relevant to the research objectives, that is, SMEs which had taken loans.

3.5 Data collection

The study relied on primary data which was collected by use of semi-structured questionnaires which contained both open-ended and close-ended questions. Close ended

questions obtained quantitative data while open-ended questions obtained qualitative data. The questionnaire contained questions which addressed the objectives of the study. The researcher adopted the drop and pick later approach where questionnaires were dropped and picked afterwards. The researcher mainly targeted the owners of SMEs.

3.6 Data Analysis

Data collected was checked for completeness of recording from the respondents and its accuracy. The researcher used both descriptive and statistical approaches in analyzing and processing the data. Both qualitative and quantitative methods were used as they both complemented each other. Qualitative data was analyzed on a comparison basis and merging those which were similar in narrative form. On the other hand quantitative data was analyzed by use of statistical package for social sciences (SPSS- Version 17.0) and Microsoft excel. The findings were presented form of tables, figures and charts.

The model's description was fashioned to capture the relationship between the dependent and independent variables as stated below.

$$DC = f(IR, PRO, OE)\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(1)$$

Where DC is the demand for credit which is defined as the amount of loan applied for by the SME, IR is the Effective Interest Rates charged by MFIs, PRO is the annual profit and OE is the Owner's equity.

Multiple Regression analysis was used to analyze the relationship between interest rate and demand for credit or loans as stated above. The independent variables were interest rate, profit and owner's equity. The annual profit was meant to show the viability of the enterprise and likelihood of being considered for loans by the lending institution. The following Multiple Regression Model description will be used to capture the relationship between the variables.

$$Y_t = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (2)$$

Table 1: Operational definition of variables

Symbol	Variable
A	Constant term
Y	Credit Demand(loans extended to the SMEs)
X_1	The Effective Interest Rate (EIR), which is the actual price of the loan that the borrower pays
X_2	Annual profit before interest payment (EBIT)
X_3	Owner's equity
e	Error term normally distributed about a mean of 0
β_1	Interest rate elasticity of demand for credit
β_2	Profit elasticity of demand for credit
β_3	Owner's equity elasticity of demand for credit
T	Period between 2009 to 2012

Priori restrictions were that $\beta_1<0$, $\beta_2>0$, $\beta_3>0$. The relationship acknowledges that interest rate influences the demand for loans (Nehman, 1973). This was expected on both empirical and theoretical grounds.

This model was successfully used by Amonoo *et al* (2003) in their study on effect of interest rates on demand for credit and loan repayment by the poor and SMEs in Ghana.

3.7 Data Reliability and Validity

The researcher improved on reliability by allowing respondents sufficient time to fill the questionnaire, and also ensured that the unintended people did not fill the questionnaire and were not interviewed**.** To enhance content validity, the researcher consulted and discussed with the supervisor, to examine whether the instruments answered the research questions. This was with regards to Kothari (2000).

<div align="center">

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

</div>

4.1 Introduction

This chapter presents the analysis of data collected from the administered questionnaires. 50 questionnaires in total were administered but the researcher managed to obtain 48 completed questionnaires representing a 96% response rate. The questionnaire contained questions that addressed the objectives of the study.

4.2 Data Analysis and Presentation

The collected questionnaires were edited and cleaned for completeness in preparation for coding. Once the questionnaires were coded, they were entered into the Statistical Package for Social Sciences (SPSS) version 17 computer package for analysis.

Descriptive statistics such as mean, standard deviation and frequency distribution were used to analyze data. Quantitative technique was used to analyze the closed-ended questions and qualitative technique was used to analyze the open ended questions, content analysis was used to categorize common answers according to their commonality. Inferential statistics (regression analysis) was also used to establish the effect of interest rates on demand for credit by SMEs in Nairobi County.

4.2.1 Position Held in Organization

Respondents were further required to indicate their positions in the organization. Majority (56.3%) of the respondents were business owners. They were followed by credit officers at 14.6%, accountants at 8.3 and finance officers at 4.2%. The findings reveal that by the virtue of the positions of the respondents they had the authority to comment on the aspects under study because they are directly involved with finance issues. The findings are presented as shown in Table 4.1 and Figure 4.1.

Table 4.1   Position Held in Organization

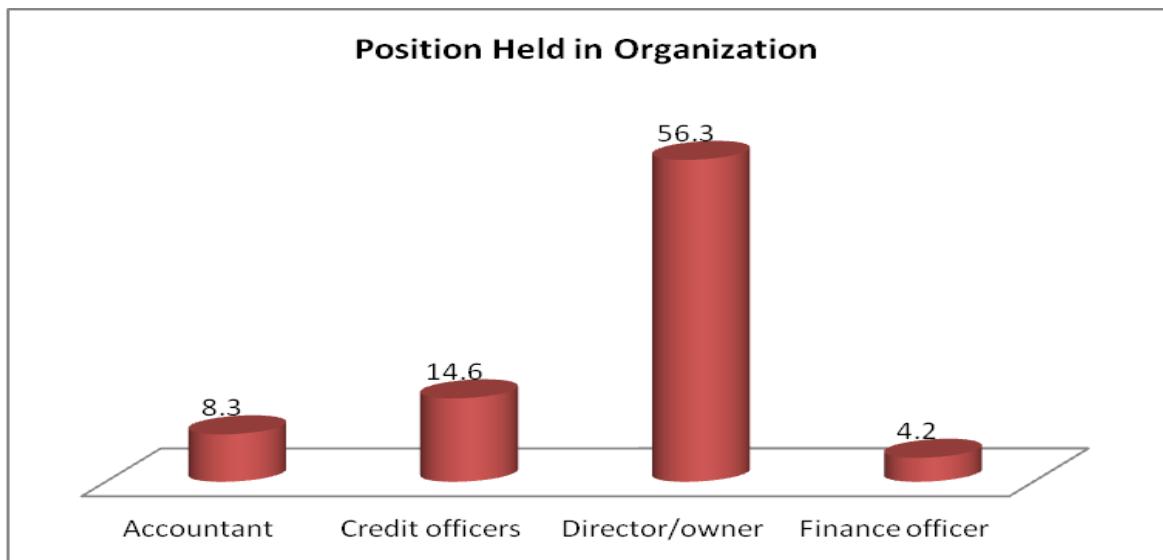| Position held	Frequency	Percentage
Accountant	4	8.3
Credit officers	7	14.6
Director/owner	27	56.3
Finance officer	2	4.2
Manager	8	16.6

Source: Research Data 2013

Figure 4.1

4.2.2 Highest Level of Education

56.3% of the respondents were diploma holders, 31.3% of them were degree holders and the remaining 12.5% of them had attained postgraduate qualifications. This reveals that the respondents could easily articulate the issues under study. The findings are as shown in Table 4.2 and Figure 4.2 below.

Table 4.2   Highest Level of Education

Education	Frequency	Percentage
Diploma	27	56.3
Degree	15	31.3
Postgraduate	6	12.5
Total	48	100.0

Source: Research Data 2013
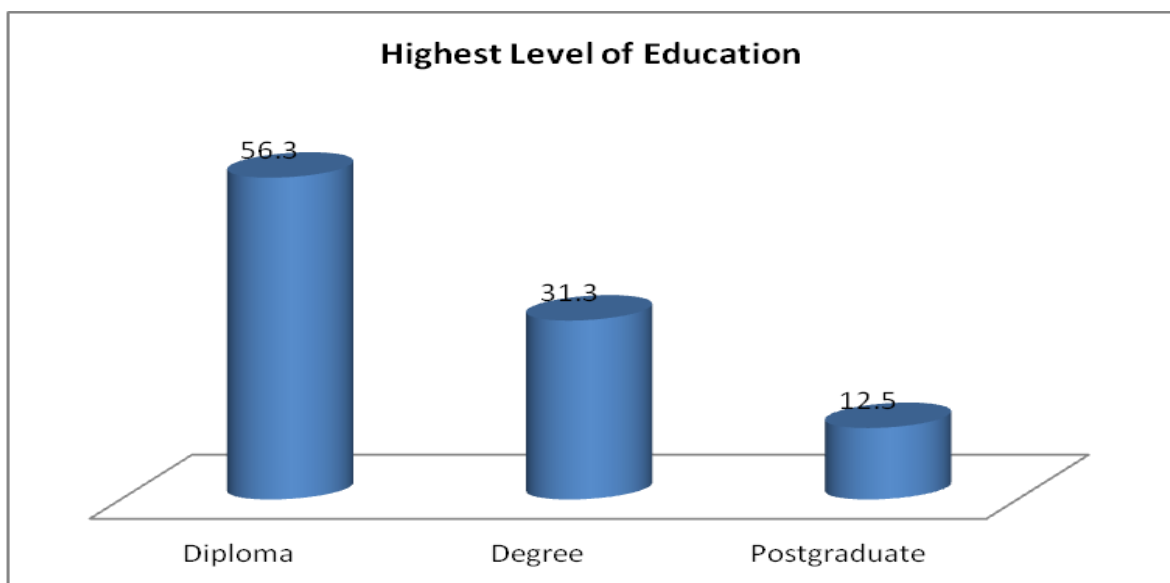
Figure 4.2

4.2.3 Period of Business Operation

Respondents were further required to indicate the period their businesses had been in operation. 47.9% of them indicated that their businesses had been in operation for a period of between 1-5 years, 33.3% of them a period of between 6-10 years and the remaining 18.8% of them had been in business for a period of over 10 years. This reveals that a significant number of SMEs had been in business for long enough to access credit. The findings are as shown in Table 4.3 and Figure 4.3.

Table 4.3   Period of Business Operation

Period	Frequency	Percentage
1-5 years	23	47.9
6-10 years	16	33.3
Over 10 years	9	18.8
Total	48	100.0

Source: Research Data 2013
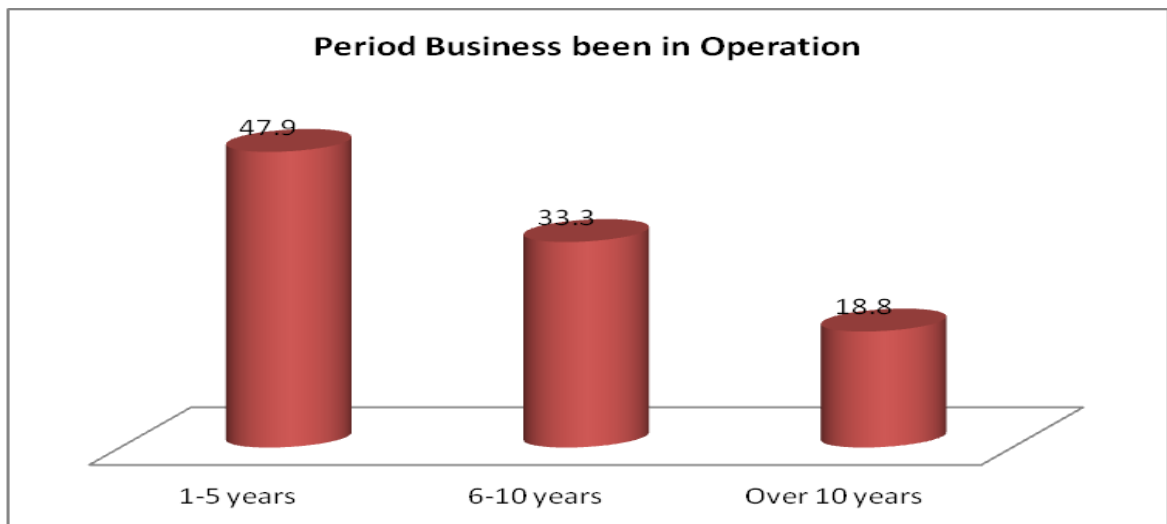
Figure 4.3

4.2.4 Scale of Business

58.3% of the respondents indicated that they were medium scale enterprises and the remaining 41.7% of them indicated that they were small scale enterprises. The findings are as shown in Table 4.4 and Figure 4.4.

Table 4.4   Scale of Business

Scale of Business	Frequency	Percentage
Small	20	41.7
Medium	28	58.3
Total	48	100.0

Source: Research Data 2013
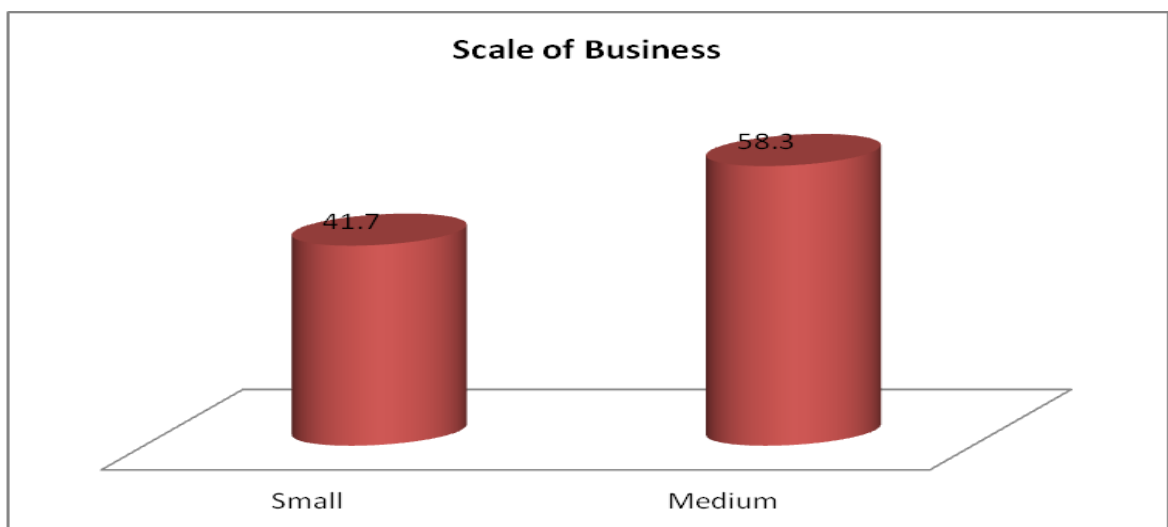
Figure 4.4

4.2.5   Type of Business

Respondents were further required to indicate the type of their business ranging from trading, manufacturing and service. 47.9% of them were in the service industry, 31.3% in the trading industry and the remaining 20.8% of them from the manufacturing industry. The findings are as shown in Table 4.5 and Figure 4.5.

Table 4.5   Type of Business

Business Type	Frequency	Percentage
Trading	15	31.3
Manufacturing	10	20.8
Service	23	47.9
Total	48	100.0

Source: Research Data 2013
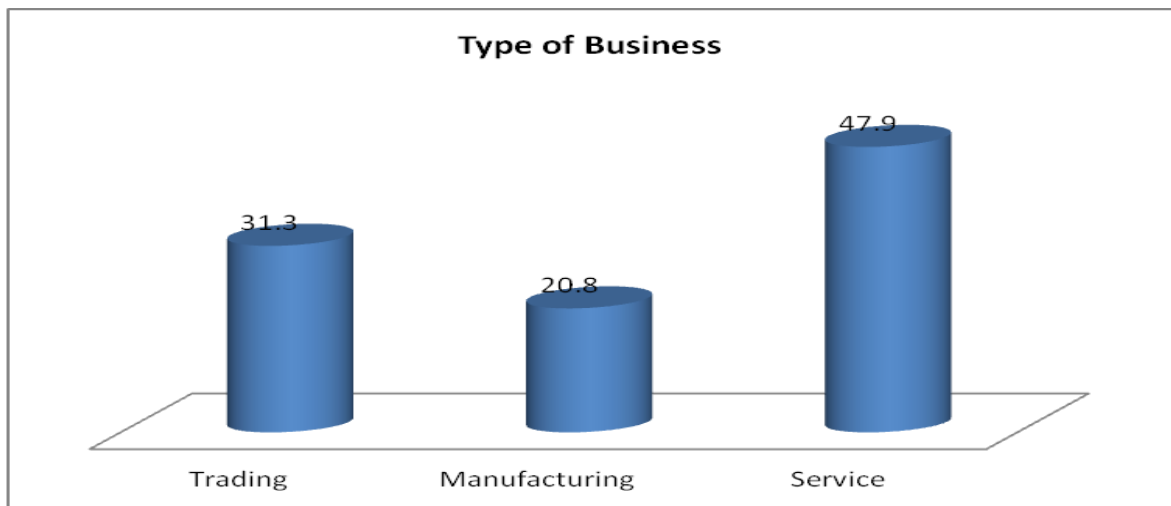
Figure 4.5

4.2.6   Primary Source of Financing

Respondents were further required to indicate their primary source of financing.68.8% of them indicated that their primary source of financing was through savings. This was followed by loans at 27.1% and the remaining 4.2% of them indicated they were funded by gifts or through inheritance. The findings therefore reveal there is low demand for credit among the SMEs as shown in Table 4.6 and Figure 4.6.

Table 4.6   Primary Source of Financing

Financing	Frequency	Percentage
Savings	33	68.8
Loans	13	27.1
Gifts/Inheritance	2	4.2
Total	48	100.0

Source: Research Data 2013
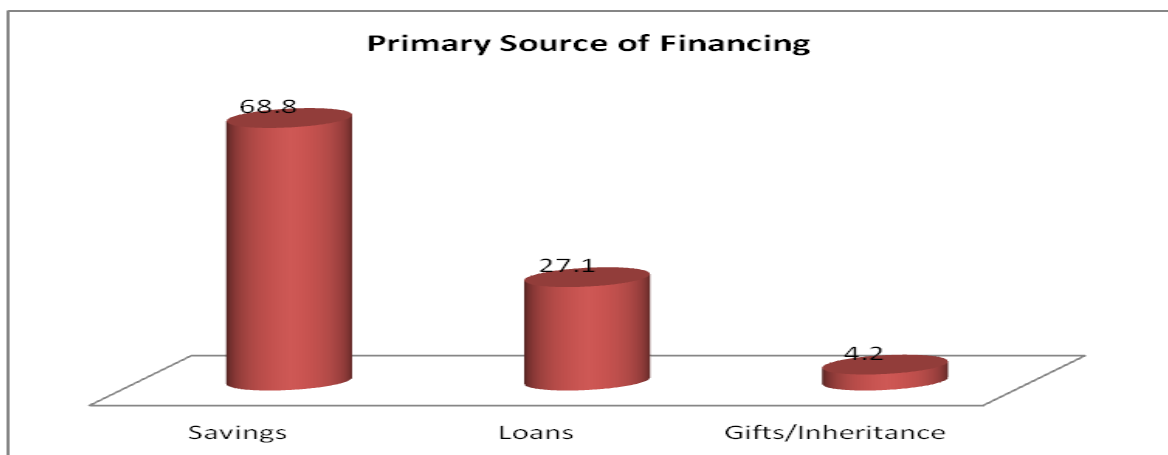
Figure 4.6

4.2.7   Access of Loan

Respondents were further required to indicate whether they had obtained loans before. 83.3% of them indicated that they had obtained loans and the remaining 16.7% of them indicated otherwise. The findings are as shown in Table 4.7 and Figure 4.7.

Table 4.7   Access of Loan

Loan	Frequency	Percentage
Yes	40	83.3
No	8	16.7
Total	48	100.0

Source: Research Data 2013
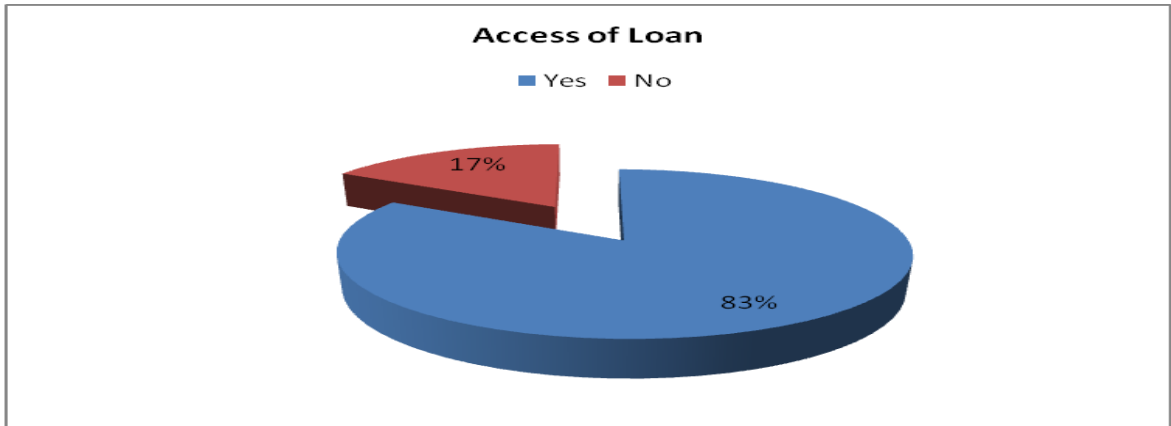
Figure 4.7

4.2.8 Frequency of Accessing Loan after Start up Phase

Respondents were further required to indicate the frequency of obtaining loans after start up phase. 50% of them indicated that they had obtained loans twice after start up phase. They were followed by those who obtained the loans once at 20.8%. Those who had obtained the loans thrice were represented by 14.6%. Another 8.3% of them had obtained the loans five times and the remaining 6.3% of them had obtained the loans four times. The findings therefore reveal that there is low demand for credit among the SMEs as shown in Table 4.8 and Figure 4.8.

Table 4.8   Frequency of Accessing Loan after Start up Phase

Frequency of Access	Frequency	Percentage
Once	10	20.8
Twice	24	50.0
Thrice	7	14.6
Four times	3	6.3
Five times	4	8.3
Total	48	100.0

Source: Research Data 2013

Frequency of Accessing Loan after Start up Phase
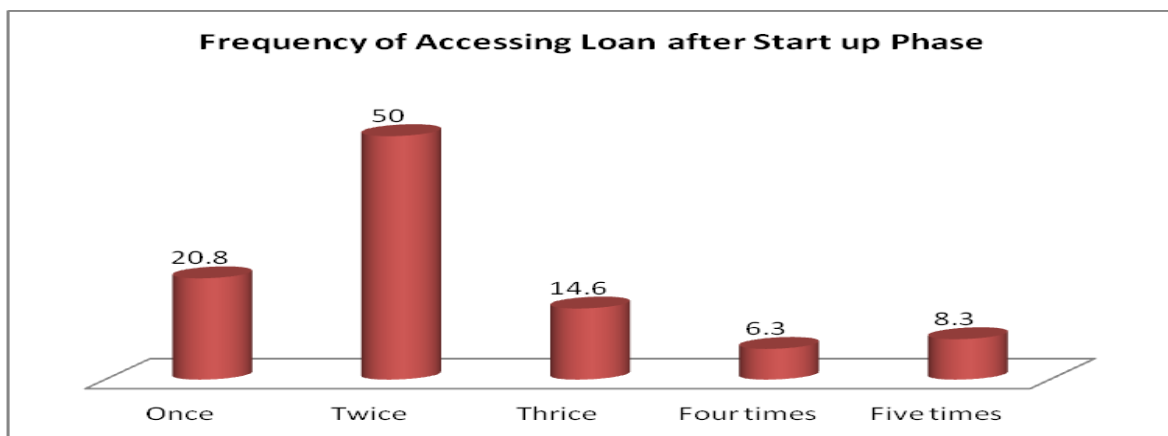
Figure 4.8

4.2.9   Loan Amount Applied

Respondents were further required to indicate the loan amounts they had applied for. 41.7% of them indicated that they had applied for amounts between Khs. 100,000-200,000. 20.8% of them had applied for amount between Kshs.50, 000-100,000. Another 18.8% of them had applied for amounts over Kshs. 1,000,000. The findings are as shown in Table 4.9 and Figure 4.9. However, majority of them categorically indicated that they amounts they had applied for were not the amount they received.

Table 4.9   Loan amount applied

Loan applied	Frequency	Percentage
1-50,000	2	4.2
50,000-100,000	10	20.8
100,000-200,000	20	41.7
200,000-500,000	6	12.5
500,000-1,000,000	1	2.1
1,000,000 and above	9	18.8
Total	48	100.0

Source: Research Data 2013
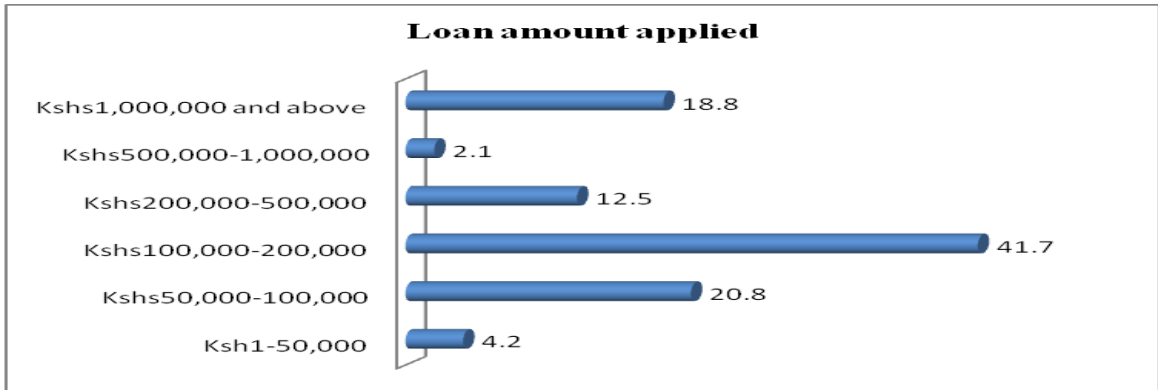
Figure 4.9

4.2.10 Interest Rates

Respondents were further required to indicate the loan amounts approved. The findings are as shown in Table 4.10 and Figure 4.10.Majority (37.5%) of the respondents categorically indicated that they were charged interest rates of 21%. They were followed by those charged 18% represented at 22.9%. Those charged 24% were represented at 14.6%. 10.4% of the respondents indicated that they were charged interest rates of 14%. Only 6.3% of the respondents and 8.3% of the respondents indicated that they were charged interest rates of 12% and 16% respectively. The findings are as shown in Table 4.10 and Figure 4.10.

Table 4.10   Interest Rates

Interest Rate (%)	Frequency	Percentage
12	3	6.3
14	5	10.4
16	4	8.3
18	11	22.9
21	18	37.5
24	7	14.6
Total	48	100.0

Source: Research Data 2013
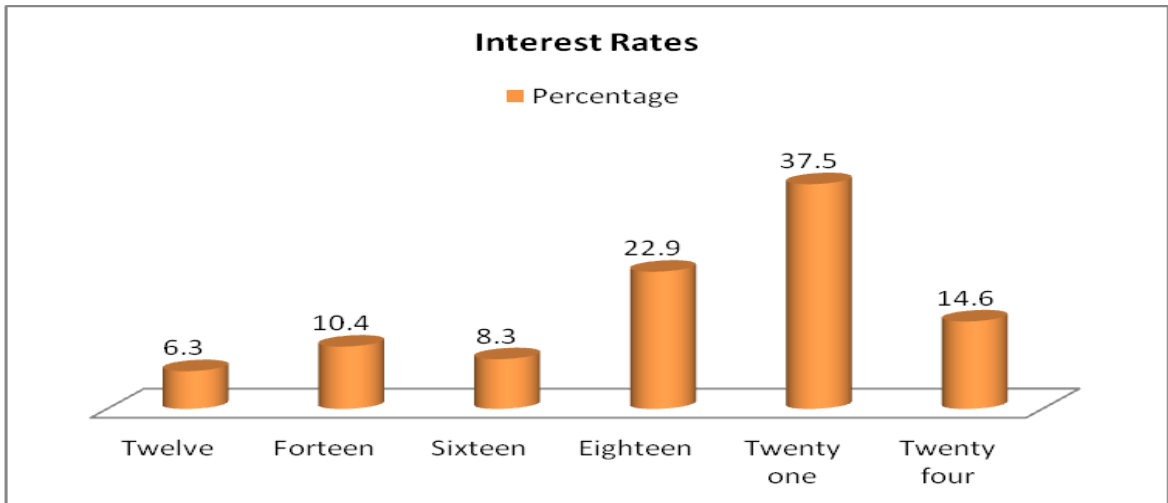
Figure 4.10

4.2.11 Loan Requirement Criteria

Respondents were further required to indicate the extent to which various loan requirement were important in order for them to qualify for a loan. A likert scale of 1-4 was considered where 1=Strongly Disagree and 4= Strongly Agree. Means of between 2.7907-2.9268 and standard deviations of between 0.02839-0.88797 were registered. The findings further revealed that possession of collateral (2.9268) was the most important aspect for one to access credit from lending institutions. This was followed by availability of guarantors (2.8837) and financial statements (2.7907) respectively. The findings are as shown in Table 4.11 and Figure 4.11.

Table 4.11   Loan Requirement Criteria

	Mean	**Std. Deviation**
Collateral	2.9268	.88797
Financial statements/ records	2.7907	.87722
Guarantors	2.8837	.02839

Source: Research Data 2013
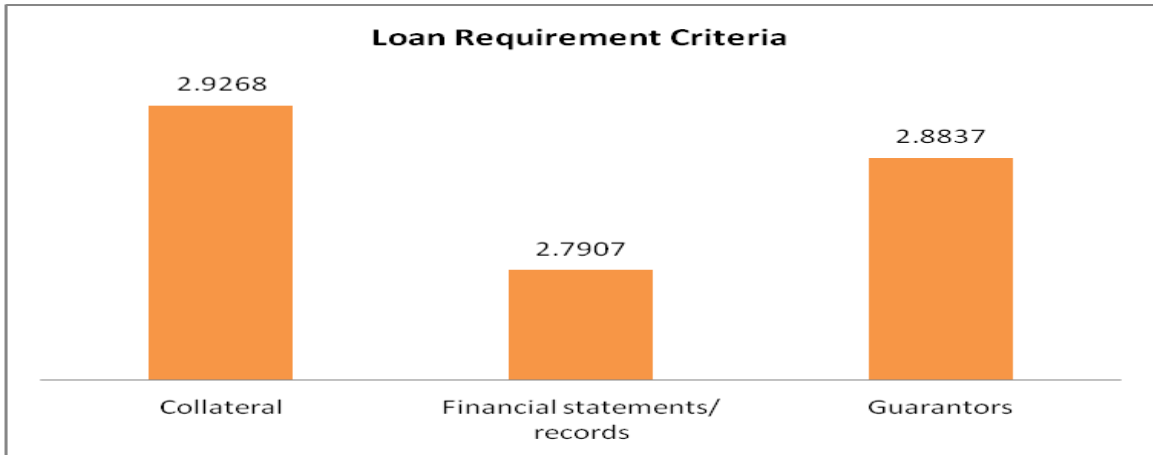
Figure 4.11

4.2.12 Satisfied with Terms

Respondents were further required to indicate whether they were satisfied with the loan terms. 52% of them indicated that they were not satisfied while the remaining 48% of them indicated otherwise as shown in Table 4.12 and Figure 4.12.Respondents cited the following reasons for not being satisfied: High interest rates, short repayment period and long time taken to process the credit facility.

Table 4.12   Satisfied with Terms

Satisfied	Frequency	Percentage
Yes	22	48.0
No	26	52.0
Total	48	100.0

Source: Research Data 2013
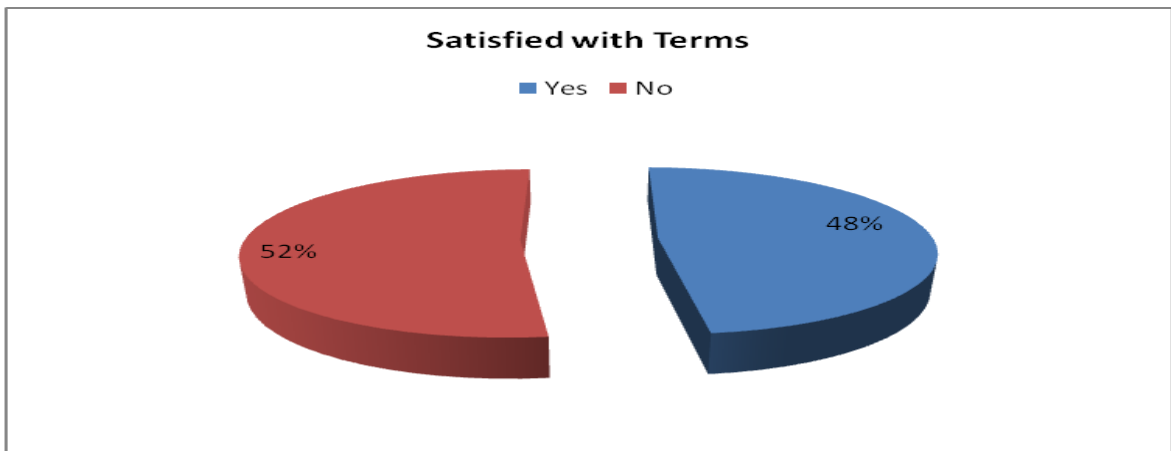
Figure 4.12

4.2.13 Timely Reception of Loan

Respondents were further required to indicate whether they received the loan on time. 60.4% of them indicated that they did receive the loan on time while the remaining 39.6% of them indicated otherwise as shown in Table 4.13 and Figure 4.13. Majority of the respondents who indicated that they did not receive the loan on time further indicated that the loan delayed for a period of between 1-2 weeks.

Table 4.13   Timely Reception of Loan

Satisfied	Frequency	Percentage
Yes	29	60.4
No	19	39.6
Total	48	100.0

Source: Research Data 2013
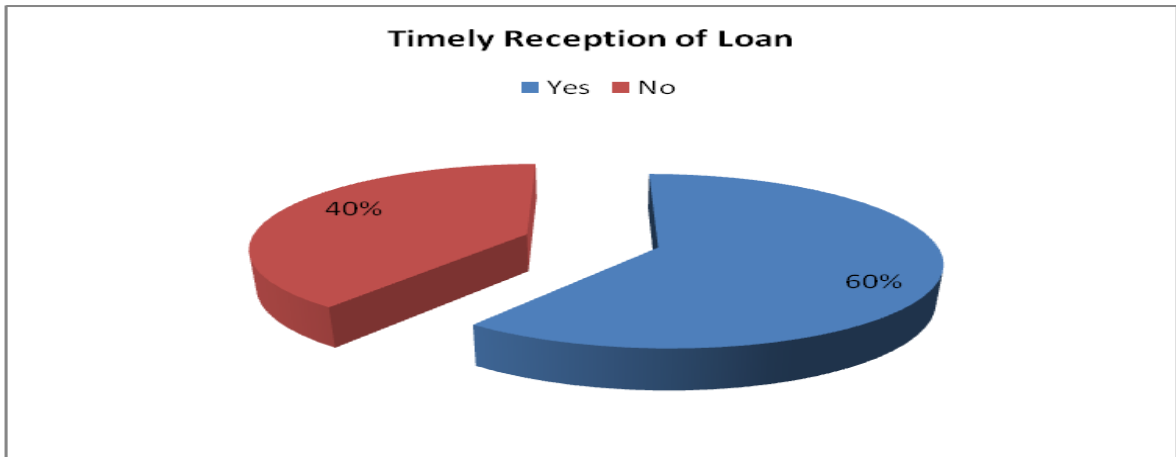
Figure 4.13

4.2.14 Repayment Failure

Respondents were further required to indicate whether they had failed to make their loan repayment as required. 27.1% of them indicated that they had failed as required and 72.9% of them indicated otherwise. The findings are as shown in Table 4.14 and Figure 4.14. Those who failed to make the loan repayment as required cited the following reasons: Cashflow problems, low business pick up, poor business performance and challenges at business place.

Table 4.14   Repayment Failure

Failed	Frequency	Percentage
Yes	13	27.1
No	35	72.9
Total	48	100.0

Source: Research Data 2013

Repayment Failure
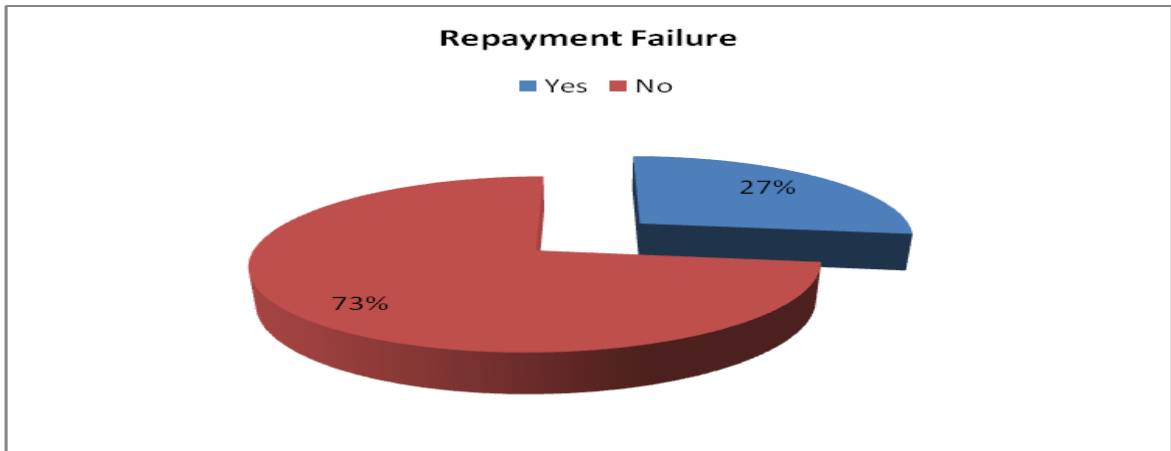
Figure 4.14

4.2.15 Repayment Motivation

Respondents were further required to indicate the extent to which various motivating factors were important in repaying their loan on time. A likert scale of 1-5 was considered where 1=Least important and 5= Very important. Means of between 3.4524 - 4.3953 and standard deviations of between 0.24203-0.89850 were registered. The findings therefore revealed that majority of the respondents were motivated to repay their loans on time in expectation to get another loan (4.3953). This was followed by the fact that majority of them did not want to lose their collateral at means of 4.0698. Knowing that paying bank loan was their obligation (3.9535) and to keep social status (3.4524) followed respectively. The findings are as shown in Table 4.15 and Figure 4.15.

Table 4.15   Repayment Motivation

	Mean	**Std. Deviation**
Not to lose collateral	4.0698	.89850
To keep social status	3.4524	.31042
In expectation to get another loan	4.3953	.76031
Knowing that paying bank loan is my obligation	3.9535	.24203
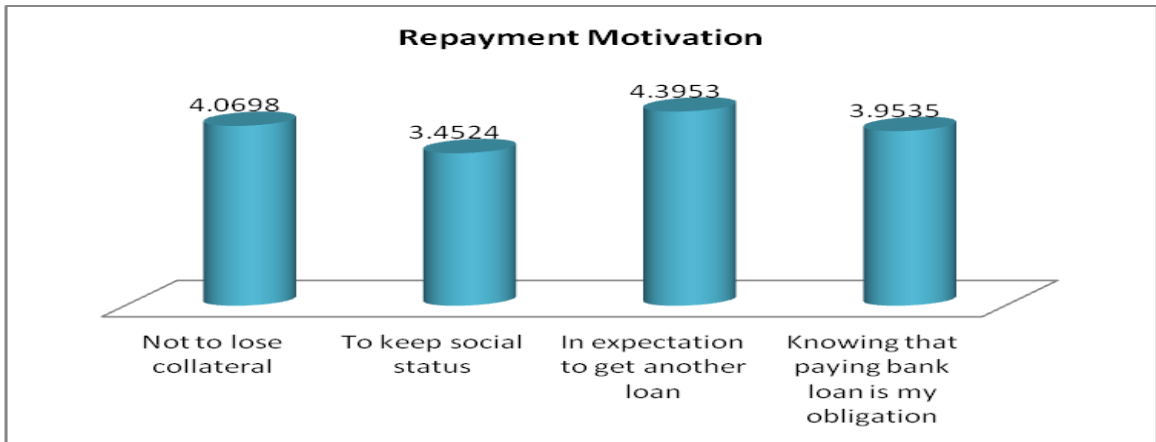
Figure 4.15

4.2.16 Interest Rate According to Loan Size

All the respondents categorically indicated that they considered the interest rate charged as an important factor before they applied for any loan. The further 70.8% of them indicated that interest rates should be charged according to the size of loan applied for where small loan amounts should attract small interest rates and vice versa. The remaining 29.2% of them indicated otherwise attributable to the fact that they would like to be charged the same interest rates in the event they needed big loans like those who needed smaller loan amounts. The findings are as shown in Table 4.16 and Figure 4.16. All the respondents proposed an ideal interest rate of 12% per annum.

Table 4.16   Interest Rate According to Loan Size

Interest rate	Frequency	Percentage
Yes	34	70.8
No	14	29.2
Total	48	100.0

Source: Research Data 2013
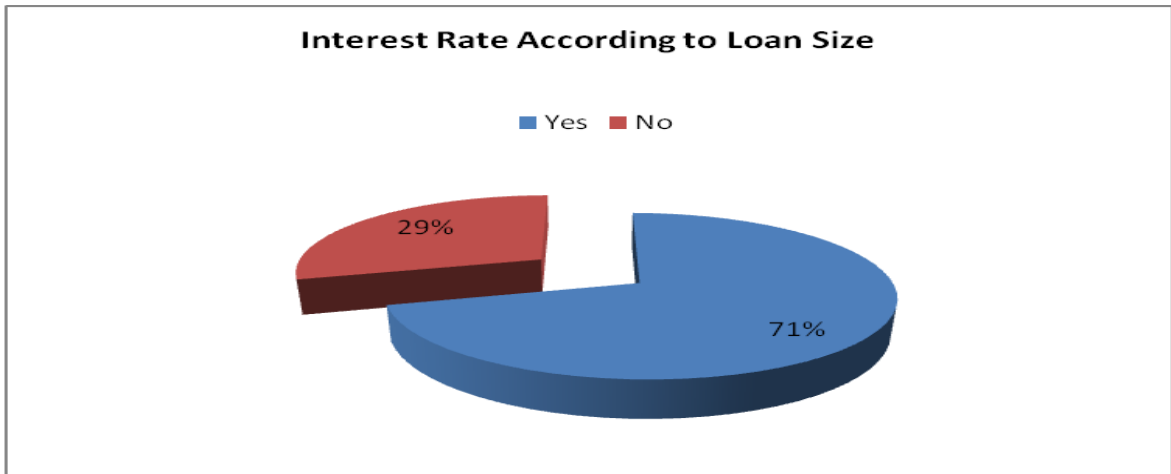
Figure 4.16

4.2.17 Bigger Loan Application

All the respondents categorically indicated that they would apply for bigger loans in the event interest rates were reduced citing the following reasons: The loan amount will be easily repaid, to get enough capital to expand their businesses cheaply, bigger loans attract bigger investment returns, flexibility in loan repayment and increase capital base at a cheap cost. However they were also categorical that in the event the interest rates were increased they could not apply for bigger loans citing the following reasons: The high interest rates could cripple their operations, it could be burdensome to make the loan repayments and that it would take them to clear the loans.

4.2.18 Determinants of Demand for Credit

Respondents were further required to rate the significance of various determinants of demand for credit by SMEs. A 5 point likert scale was considered where 1= Not significant at all and 5= very significant. Means of between 3.7826-4.0667 and standard deviations of between 0.12525-0.26850 were registered. Majority of the respondents indicated that interest charged by the lending institution (4.0667) was significant in determining demand for credit by SMEs. This was followed by business annual profits (3.9783) and owner's contribution to business (3.7826) respectively. The findings are as shown in Table 4.17 and Figure 4.17.

Table 4.17   Determinants for Credit

Determinant	Mean	Std. Deviation
Interest rate charged by Lending Institution	4.0667	.12525
Annual profit	3.9783	.22770
Owner's contribution to capital	3.7826	.26850

Source: Research Data 2013
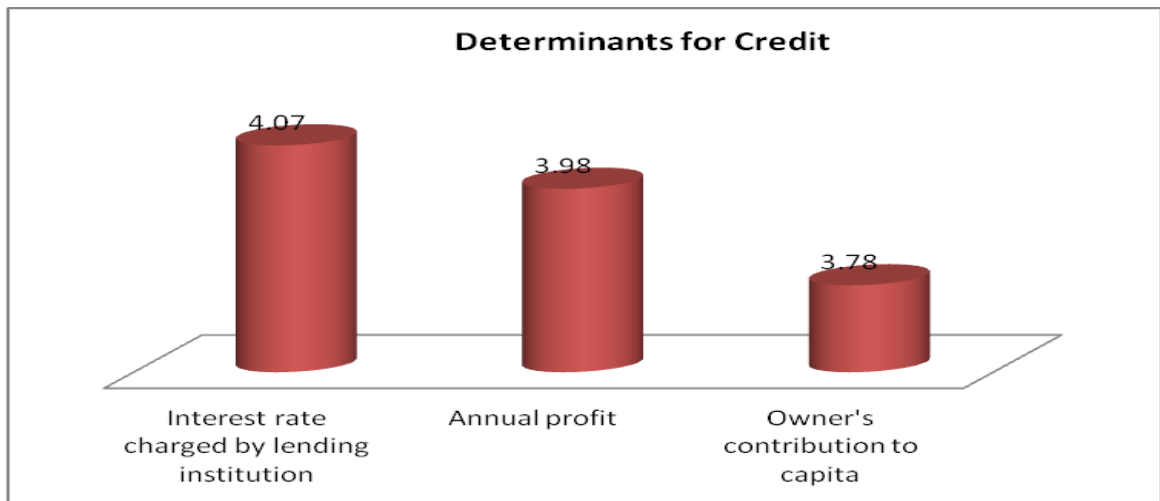
Figure 4.17

4.2.19 Regression Analysis

The research study wanted to evaluate the effect of interest rates on demand for credit by small and medium enterprises in Nairobi County. The research findings indicated that there was a very strong positive relationship (R= 0.932) between the variables. The study also revealed that 86.9% of demand for credit by SMEs could be explained by the variables under study. From this study it is evident that at 95% confidence level, the variables produce statistically significant values and can be relied on to explain demand for credit by SMEs in Nairobi County. The findings are as shown in the Tables 4.18, 4.19 and 4.20.

Table 4.18 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.932	.869	.398	.95469

Source: Research Data 2013

Table 4.19 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.518	47	.138	.746	.004
Residual	.185	1	.185		
Total	1.702	48			

Source: Research Data 2013

Table 4.20 Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	2.131	.138	.156	.947	.350
Effective interest rate	.880	.198	.069	.403	.031
Annual profit (EBIT)	.799	.232	.258	1.289	.016
Owners Equity	.648	.131	.192	1.123	.029

Source: Research 2013

From this study it was evident that at 95% confidence level, the variables produce statistically significant values for this study (high t-values, $p < 0.05$). A positive effect is reported for all the variables under study hence influence the demand for credit by the SMEs in Nairobi County positively. The results of the regression equation below shows

that for a 1- point increase in the independent variables, demand for credit by SMEs is predicted to increase by 2.131, given that all the other factors are held constant.

The equation for the regression model is expressed as:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \pounds$$

$$Y = 2.131 + 0.880 X_1 + 0.799 X_2 + 0.648 X_3$$

Where

β_1, β_2 and β_3 are correlation coefficients

Y = Credit demand

X_1 = Effective interest rate

X_2 = Annual profit (EBIT)

X_3 = Owner's equity

4.3 Summary and Interpretation of Findings

This research sought to evaluate the effect of interest rates on demand for credit by SMEs in Nairobi County. Further, 66.7% of the respondents were male and 33.3% of them were female. Majority (56.3%) of them were business owners hence could give the relevant information sought. All the respondents had attained diploma level of education and above hence could articulate the issues under study easily. A significant 88.2% of them had been in business for long enough to qualify for credit from lending institutions. 58.3% of the respondents indicated that they were medium scale enterprises and the remaining 41.7% of them indicated that they were small scale enterprises. 47.9% of them were in the service industry, 31.3% in the trading industry and the remaining 20.8% of them from the manufacturing industry.

Another 68.8% of them indicated that their primary source of financing was through savings. Business funding by use of credit was represented at 27.1%. 83.3% of them indicated that they had obtained loans and the remaining 16.7% of them indicated otherwise. Studies carried out by International Labour Organization (ILO) following financial crises in East Asia (Mark 2003), on financial support for micro and small enterprises in Thailand, revealed that 36% of these enterprises had difficulties in arranging start-up funds, 55% had funded their enterprises with their own funds, 17% obtained funds from government subsidized programmes and 20% of the survey group had borrowed from a bank. 50% of them indicated that they had obtained loans twice after start up phase. Khs 100,000-200,000. 20.8% of them had applied for amount between Kshs.50, 000-100,000. Another 18.8% of them had applied for amounts over Kshs. 1,000,000. However, majority of them categorically indicated that they amounts they had applied for were not the amount they received. These study findings complement the findings of (Swain, 2002) who established that loan quantity rationing arises when the potential borrower is denied credit while loan size rationing occurs when the loan amount received by the borrower is smaller than the one they demanded.

37.5% of the respondents categorically indicated that they were charged interest rates of 21%. They were followed by those charged 18% represented at 22.9%. Possession of collateral (2.9268) was the most important aspect for one to access credit from lending institutions. This was followed by availability of guarantors (2.8837) and financial statements (2.7907) respectively. 52% of them indicated that they were not satisfied while the remaining 48% of them indicated otherwise. Reasons for not being satisfied ranged from: High interest rates, short repayment period and long time taken to process the credit facility.

Further, 60.4% of them indicated that they did receive the loan on time while the remaining 39.6% of them indicated otherwise. Loans delayed for periods of between 1-2 weeks. 27.1% of them indicated that they had failed as required and 72.9% of them indicated otherwise. Majority of the respondents were motivated to repay their loans on time in expectation to get another loan (4.3953). This was followed by the fact that majority of them did not want to lose their collateral at means of 4.0698. Knowing that

paying bank loan was their obligation (3.9535) and to keep social status (3.4524) followed respectively.

All the respondents categorically indicated that they considered the interest rate charged as an important factor before they applied for any loan. 70.8% of them indicated that interest rates should be charged according to the size of loan applied for where small loan amounts should attract small interest rates and vice versa. Majority of the respondents indicated that interest charged by the lending institution (4.0667) was significant in determining demand for credit by SMEs. This was followed by business annual profits (3.9783) and owner's contribution to business (3.7826) respectively.

The inferential statistics revealed that there was a very strong positive relationship (R= 0.932) between the variables. The study also revealed that 86.9% of demand for credit by SMEs could be explained by the variables under study. This study complements the findings of Muthoka (2012) who also found that SMEs benefit from loans from microfinance institutions, and they seek financial assistance from the MFIs due to interest rate, easy loan repayment and amount offered. Munene (2009) found out credit bureaus enabled the lenders assess credit worthiness, ability to pay back a loan, and this affects the interest rate and other terms of a loan. Bett (2013) conducted a study, to find out the effects of lending interest rates on profitability of savings, credit and cooperative societies in Kenya. He found out that lending interest rate of Saccos is positively correlated with profitability. This implies that they move together without impacting negatively the demand side of the loanable funds.

CHAPTER FIVE

SUMMARY, CONCLUSIONS & RECOMMENDATIONS

5.1   Introduction

This chapter provides a summary of the study, discussions and conclusions. The researcher then presents the major limitations of the study and the recommendations for both the research and for the policy and practice.

5.2   Summary

This research sought to evaluate the effect of interest rates on demand for credit by SMEs in Nairobi County. A correlation research design was adopted where all the 4650 registered SMEs in Nairobi County were targeted. This population was given importance due to getting empirical evidence. A sample of 50 SMEs was selected using stratified random sampling.

This research relied on primary data which was collected using a semi-structured questionnaire which contained both open-ended and close-ended questions. The questionnaire was structured in such a way to capture information from SMEs on issues pertaining to interest rates charged by lending institutions and the demand for credit. Drop and pick later method was used as it was appropriate and convenient for both the researcher and the respondents. This gave the respondents time to fill the questionnaires and also allowed the researcher the opportunity to review the questionnaires for completeness before picking. The questionnaires contained questions that addressed the objective of the study.

A total of 50 questionnaires were administered but the researcher managed to obtain 48 completed questionnaires. 66.7% of the respondents were male and 33.3% of them were male. Majority (56.3%) of them were business owners hence could give the relevant information sought. All the respondents had attained diploma level of education and above hence could articulate the issues under study easily. A significant 88.2% of them had been in business for long enough to qualify for credit from lending institutions. Majority of the businesses under study were medium scale enterprises. 47.9% of them were in the service industry, 31.3% in the trading industry and the remaining 20.8% of

them from the manufacturing industry. The primary source of financing business operations was savings then followed by credit. However, majority of the businesses had obtained loans from lending institutions. Half of the respondents had obtained loans twice after start up phase. Majority of the businesses had applied for loan amounts of between Khs. 100,000-200,000. However, they categorically indicated that the amounts they had applied for were not the amount they received. Most lending institutions charged interest rates of 21%. Possession of collateral was the most important aspect for one to access credit from lending institutions. Majority of the respondents were not satisfied with the lending terms because of high interest rates, short repayment period and long time taken to process the credit facility.

Loans delayed for periods of between 1-2 weeks. Some respondents failed to repay their loans as required because of business challenges, poor business performance and low business pick up. Majority of the respondents were motivated to repay their loans on time in expectation to get another loan. All the respondents categorically indicated that they considered the interest rate charged as an important factor before they applied for any loan. 70.8% of them indicated that interest rates should be charged according to the size of loan applied for where small loan amounts should attract small interest rates and vice versa. Majority of the respondents indicated that interest charged by the lending institution was significant in determining demand for credit by SMEs. The inferential statistics revealed that there was a very strong positive relationship (R= 0.932) between the variables.

5.3   Conclusion

From the study findings, it would be safe to conclude that interest rates have a positive effect on the demand for credit from lending institutions by SMEs in Nairobi County. The conclusion is supported by the study findings which showed that there was a very strong positive relationship (R= 0.932) between the variables. The study also revealed that 86.9% of demand for credit by SMEs in Nairobi County could be explained by the variables under study. From this study it is evident that at 95% confidence level, the variables produce statistically significant values and can be relied on to explain demand for credit by SMEs in Nairobi County.

Majority of the businesses had applied for loan amounts of between Khs. 100,000-200,000. However, the amounts applied for were not the amounts received. Most lending institutions charged interest rates of 21%. Possession of collateral was the most important aspect for one to access credit from lending institutions. Majority of the respondents were not satisfied with the lending terms because of high interest rates, short repayment period and long time taken to process the credit facility. Some respondents failed to repay their loans as required because of business challenges, poor business performance and low business pick up. Respondents were motivated to repay their loans on time in expectation to get other loans. All the respondents categorically indicated that they considered interest rate charged by a lending institution before they applied for loan where they suggested that interest rates should be charged according to loan amount applied.

5.4   Recommendations for Policy and Practice

With due regard to the ever increasing desire to have credit empowerment for SMEs in Kenya , there is need to invest in proper credit access strategies so as to meet these expectations. This should be done in a manner in which all the stakeholders are happy. This therefore calls for embracing proper credit access strategies which are acceptable, accessible, ethically sound, have a positive perceived impact, relevant, appropriate, innovative, efficient, sustainable and replicable.

The management of lending institutions should ensure that they carry out a research on consumer needs so as to establish ideal interest rates to be charged. This will go a long way in helping them to know the needs of the consumers so as to be competitive in credit lending because most SMEs prefer being charged low interest rates hence will go for the lowest interest provider on credit facilities. Lending institutions should also advise borrowers on how to appraise their projects for viability so that they can deliver and avoid loan repayment problems. This will go a long way helping the business owners realize the objectives of the business and the credit to yield high returns. Banks should engage professional marketers of credit facilities to the SMEs which will increase demand for loans by SMEs. They should also encourage feedback from loan consumers. Flexible interest rates should be charged on credit facilities to the SMEs.

The owners and management of SMEs should always monitor their loan usage to avoid misappropriation. This should start even before accessing the credit by prior planning for the budget and sticking to that budget. In the event of misappropriation they should replace the amount used for other purposes on time so as to stick to purpose of the loan and avoid loan repayment problems. Banks should also have a follow up programme to make sure clients have put the loan in the stated purpose.

The government should enact legislation which regulates the microfinance industry. This legislation should ensure that banks and other lending institutions charge affordable interest rates on SMEs. Stringent loan requirements like provision of collateral should be removed.

5.5   Limitations of the Study

The researcher encountered quite a number of challenges related to the research and most particularly during the process of data collection. Some respondents were biased while giving information due to reasons such as privacy and busy schedules at their places of work.

Due to inadequate resources, the researcher conducted this research under constraints of finances and therefore collected data from SMEs located in Nairobi County.

The research was constrained by time factor and therefore longitudinal methods study could not be used.

The study only sampled 30% of the population making sampling restrictions a limitation. Some respondents were suspicious and hence giving inaccurate information.

5.6   Suggestions for Further Studies

Arising from this study, the following directions for future research in finance are as follows: First, this study focused on SMEs located in Nairobi and therefore, generalizations cannot adequately extend to other SMEs outside Nairobi. Future research should therefore focus on all SME in Kenya.

A broad based study on interest rates and performance of both private and public Business Enterprises should also be carried out to give broader picture on the same.

A study should also be done on the effect of interest rates on loan repayment by the small scale borrowers and establish whether there is any positive relationship. This should also capture the effect on performance of these loans and the overall growth of the business especially in the Slum areas in Nairobi County.

Another area with regard to interest rates that needs further research is on the effect of Competition on interest rates. This is to determine whether this can be an effective policy for reducing interest rates charged by the various lending institutions especially the Micro Finance institutions in Kenya.

REFERENCES

Abreham Gebeyehu (2002), loan repayment and its determinants in small scale enterprises financing in Ethiopia: case of private borrowers around zeway area.

Amonoo E, Acquah P.K, Asmah E.E (2003). The impact of interest rates on demand for credit and loan repayment by the poor and SMEs in Ghana. International Labor Office (ILO), Switzerland.

Aryeetey, E, (1996).' Rural Finance in Africa- institutional Development and Access for the Poor', Annual World Bank Conference Report on Development Economics, Washington D.C, 149-73

Atieno (2001), "Formal and informal institutions' lending policies and access to credit by small-scale enterprises in Kenya: An empirical assessment" African Economic Research Consortium, Nairobi, Research Paper 111.

Bett, J. K.(2013). Effects of lending interest rates on profitability of savings, credit and cooperative societies in Kenya. Unpublished MBA project. University of Nairobi.

C.M.A (2010) Capital raising opportunities for Smes: the development of micro-cap securities markets in Kenya.

CBS-GoK (2003), Economic Survey, Report by Task Force on Micro and Small Scale Enterprises:Nairobi. Ministry of Labour and Human Resource Development, Nairobi.

CBS-GoK (2007), Economic survey, Ministry for Planning and National Development, Nairobi

Cooper.J.N. (2012). The impact of microfinance services on the growth of small and medium enterprises in Kenya.Unpublished MBA Dissertation.University of Nairobi.

David. (2001), Economics 4th ed. (USA: Mcgraw-hill Irwin Boston)

Dehejia, R, Montgomery, H., and Morduch. J., 2012. Do Interest Rates Matter? Credit Demand in the Dhaka Slums. Journal of Development Economics, Volume 97,   Issue 2, March 2012, Pages 437–449.

Fernando, N., 2006, Understanding and Dealing with High Interest Rates on Microcredit, Manila: Asian Development Bank

Gonzalez, A., 2010. Analyzing Microcredit Interest Rates: A Review of the Methodology Proposed by Mohammed Yunus, MIX Data Brief no. 4, London: Microfinance Information Exchange

Helms, B., and Reille, X., 2004 Interest Rate Ceilings and Microfinance: The Story so Far. Occasional Paper. Washington, D.C.: CGAP

Ingram, D. (2011).The Effects of low Interest Rates on the Economy.

Jahiruddin, A.2011. Can microcredit worsen poverty? Cases of exacerbated poverty in Bangladesh, Development in Practice, Volume 21, Issue 8, 2011

Jhingan, (2001), The economics of Development and Planning, 34th ed. (Delhi: Vrinda Publications (P) ltd.).

Julien K (2009). A look at the interest rates in Microfinance

Kanyugi, I. N (2013). The impact of micro-finance credit on the financial performance of SMEs in Kenya. Unpublished MBA thesis. University of Nairobi.

Karlan, D, and Zinman, J. 2008. Credit elasticities in less-developed economies: Implications for microfinance, American Economic Review 98(3): 1040–1068.

Kimutai, E., (2003). Development of co-operative rural finance services in Kenya: Challenges and urgent issues to address. Workshop proposal.

Kimuyu, and Omiti, J. (2000), "Institutional impediments to access to credit by micro and small scale enterprises in Kenya", Institute of policy Analysis and Research Discussion Paper,   No. DP/026, Nairobi.

Mariz F. (2013), Interest rates charged in Microfinance: could they be lower?Mexico.

McLaughlin C - GSDRC (2013) Helpdesk Research Report: Impact of microcredit interest rates on the poor.

Mpuga, (2004), "Demand for credit in Rural Uganda: Who cares for the peasants?", Paper presented at the conference on Growth, Poverty Reduction and Human Development in Africa Center for the Study of African Economies. Uganda.

Mudida, (2003), Modern Economic (Nairobi: Focus Publication Ltd.)

Mugenda, O. and Mugenda, A. (2003).Research methods; Quantitative and Qualitative approaches; Nairobi, African Center for Technology Studies (ACTS).

Munene.J.R(2009) The perceived impact of credit reference bureaus in accessing finance by small and medium enterprises (SMES) in Kenya.Unpublished MBA Thesis. University of Nairobi.

Muthoka.J.M.(2012). Effect of microfinance on financial sustainability of small and medium enterprises in Nairobi East District.Unpublished MBA Thesis. University of Nairobi.

Mwindi, A. G (2002). The relationship between interest rates charged by micro finance institutions and the performance of micro and small enterprises in Nairobi. Unpublished MBA Thesis. University of Nairobi.

Nyabwala K.(2010) Impact of Microfinancing on performance of small and medium enterprises (smes') in Kisumu central business district- a study of Kisumu lake market businesses. Unpublished project Maseno University.

Okurut, (2004), "Credit demand and credit rationing in the informal financial Sector in Uganda. Paper to the DPRU/TIPS/ Cornell conference on African development and poverty reduction. Development Policy Research unit. Kampala.

Republic of Kenya (2005) Sessional Paper No.2, Development of micro and small Enterprises. Nairobi.

Roodman, D., 2011, 'Due Diligence: An Impertinent Inquiry into Microfinance', 19 December 2011, Centre for Global Development.

Rosenberg, R.,Gonzalez, A.,and Narain, S(2009). Forthcoming."The New Moneylenders: Are the Poor Being Exploited by High Microcredit Interest Rates?"FocusNote. Washington, D.C.: CGAP.

Saleemi, (2000), Economics Simplified (Nairobi: N.A. Saleemi Publishers).

Saunders, M.N.K., Lewis, P. & Thornhill, A. (2003).Research methods for business students (3rd Ed).Harlow: FT Prentice Hall.

Schicks, J., 2011, Over-Indebtedness of Microborrowers in Ghana: An Empirical Study from a Customer Protection Perspective, Centre for Financial Inclusion

Stewart, R, et al., 2010. What is the impact of microfinance on poor people? A systematic review of evidence from sub-Saharan Africa, London: EPPI-Centre, Social Science Research Unit, University of London.

Swain, (2002).Credit Rationing in rural India, Journal of Economic Development Vol. 27, No.2.

Wangai N.P (2011) Factors that Influence the Demand for Credit among Small-Scale Investors: a case study of Meru Central District, Kenya Research   Journal of Finance and Accounting

Wright, D. & Alamgir D. (2004) Microcredit Interest Rates: 'Capping v Competition', Donors' Local Consultative Group on Finance.

APPENDICES

Appendix I : Introduction Letter

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162 Telegrams: "Varsity", Nairobi Telex: 22095 Varsity	P.O. Box 30197 Nairobi, Kenya

DATE 28|08|2013

TO WHOM IT MAY CONCERN

The bearer of this letter ..... LYDIAH   N.   ZACHARY

Registration No.... D61 |73826| 2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

√ **PATRICK NYABUTO**
MBA ADMINISTRATOR
SCHOOL OF BUSINESS

Appendix II : Questionnaire

This Questionnaire is aimed at collecting data regarding the effect of interest rates on demand for credit by small medium enterprises in Nairobi County. You have been selected to participate in this survey. Please give a response to all the questions as requested.

PART A: GENERAL INFORMATION

1. Name of organization--

2. Position held in the organization……………………………………………

3. Highest level of education: What is your highest level of education?

    Postgraduate   [ ]

    Degree   [ ]

    Diploma   [ ]

    Other College Education   [ ]

4. For how long has your business been in operation

    1 – 5 years [   ]   5 - 10 years [   ]   Over 10 years   [   ]

PART B: SME

5. Scale of business   small [   ]   medium   [   ]   large [   ]

6. Type of business   Trading [ ]   Manufacturing [   ]   Service [   ]

PART C: LOANS

7. Which is your primary source of financing?

     Savings [   ]   Loans [   ] Gifts/inheritance [   ]

8. Have you obtained a loan before? Yes [   ]   No [   ]

9. What was the name of the lending institution? ………………………………….

10. How frequently have you accessed loans after start up phase? ....

11. How much did you apply for?

Loan Amount (Ksh.)	Tick Where appropriate
0 - 50,000	
50,000 - 100,000	
100,000 - 200,000	
200,000 - 500,000	
500,000 - 1,000,0000	
1,000,000. And above	

12. How much was approved: Principal Ksh. ……..………. Interest rate…………..…

13. To what extent do you consider the following requirements as being important for you to qualify for loan? Tick as appropriate, 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree

	1	2	3	4
Collateral				
Financial statements/Records				
Guarantors				
Others				

14. Were you satisfied with the terms? Yes [   ]   No [   ]

15. If no state why…………………………………………………………………

16. Did you receive the loan at the right time? Yes [   ]   No [   ]

17. If no state the duration of the delay………………………………………………

18. Have you ever failed to repay back as required yes/no?

19. If yes why?...

20. On a scale of 1-5 rate the importance of each of the following aspects in terms of motivating you to repay your loan on time. Where: 1= Least important, 2= Less important, 3 = Average, 4 = Important and 5 = Very Important.

	1	2	3	4	5
Not to lose collateral					
To keep social status					
In expectation of getting another loan					
Knowing that paying bank loan is my obligation					

21. Do you consider the interest rate charged by the lending institution as an important factor before you apply for a loan? Yes [   ]   No [   ]

22. Do you think interest rates should be charged depending on the loan size?

     Yes [ ]   No [   ]

23. If yes then why? ....

24. What do think should be the ideal interest rate for you on average? ....

25. If interest rates were reduced, would you apply for a bigger loan? Yes [   ]   No [   ]

    If yes, then kindly explain…………………………………………………………………

     If no, then kindly explain…………………………………………………….......………….
…………………………………………………………………………………………………….

26. If interest rates were increased would you still go for a bigger loan? Yes [   ]   No [   ]

        If yes, then kindly explain…………………………………………………….………………
………………………………………………………………….

        If no, then kindly explain………………………………………………………………..

……

27. On a scale of 1-5 rate the significance of the following determinants of demand for credit for the SME. Where; 5=Very significant, 4= Highly significant , 3= Moderately significant, 2= Less significant and 1= Not significant at all.

	1	2	3	4	5
Interest rate charged by Lending Institution					
Annual profit					
Owner's contribution to capital					

28. On average, kindly indicate your annual profits and equity/capital for the four years periods stated below.

Year	Annual profit (Ksh.)	Owner's equity (Ksh.)
2009		
2010		
2011		
2012		

Name ……………………………………………………. Sign……………………………….

Thank You Very Much for Participating