

**THE EFFECT OF INTEREST RATES ON THE ACCESSIBILITY TO
CREDIT BY MICRO AND SMALL SIZED ENTERPRISES IN
GITARU DIVISION KENYA**

BY

FRANCIS G. MATHEA

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS,
UNIVERSITY OF NAIROBI**

OCTOBER 2014

DECLARATION

I do hereby declare that this research project is my original work and has never been presented to any other university for academic credit.

FRANCIS G. MATHEA

D61/70382/2009

Signed.....

Date.....

This research project has been submitted for examination with my approval as the University Supervisor.

Mr. Herick Ondigo,

Lecturer,

Department of Finance and Accounting,

School of Business,

University of Nairobi

Signed

Date.....

ACKNOWLEDGEMENTS

First and foremost, we would like to thank the Almighty God for the gift of life, good health and wisdom He bestowed upon me during this research project. I would like to express my deepest gratitude to my supervisor, Mr. Herick Ondigo for his excellent guidance and unwavering support. My wife Gladys who always reminded me on the need to finish the project.

I would like to show my sincere appreciation to my friend Paul Mwangi who assisted me in pss analysis. My family members who inspired me in finishing the research project. Finally, I also express my appreciation to my classmates for their support and endless encouragements during this research project.

DEDICATION

I dedicate this research to my wife Gladys Wangari Kimani

And

My children, Veronicah, David, William and Samuel.

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LIST OF ABBREVIATIONS

ASCAS	Accumulating Savings and Credit Association
CBK	Central Bank of Kenya
CF	Cash Flows
DECSIs	Debit Credit & Saving Institutions
DTM	Deposit taking microfinance
ERS	Economic Recovery Strategy
FIs	Financial Institutions
Gok	Government of Kenya
JLBS	Joint Loan Board Scheme
K-REP	Kenya rural enterprise program
MF	Microfinance
MFIs	Microfinance Institutions
MoF	Ministry of Finance
MSMSE	Micro and Medium Sized Enterprise
NGOs	Non-Governmental Organizations
PSDS	Private Sector Development Strategy
ROSCAS	Rotating Savings and credit Association
SMEP	Small and medium enterprise program
UN	United Nations
UNCDF	United Nations Capital Development Fund

ABSTRACT

The ease of access to finance for small and micro enterprises is of particular significance for the creation of new businesses, for growth and development of the existing ones, which in turn promote economic and social development of a country. Moreover, under crisis conditions, supporting the access to finance can contribute to the recovery of national economies. The thesis aims to highlight the importance of interest rates in loan accessibility to small and micro enterprises in Kenya. The study is descriptive and targeted 1746 small and micro enterprises in Gitary Division, out of which 384 were sampled. Primary data was collected through a self-administered semi-structured questionnaire. Data was analysed through descriptive and inferential statistics. The study found a great influence of interest rates on loan accessibility by small and micro-enterprises in Gitaru Division. Less than half of the businesses have applied for business loans in the past ten years due to sky rocketing interest rates. The rates of bank interest rates varied from a low of 10% and a high of 34%. There was a significant negative average association between the loan accessibility and interest rates ($r=-0.418$, $P\text{-Value}<0.05$); and a significant positive weak association between deposit rate and loan accessibility by small and micro-enterprises ($r=-0.302$, $P\text{-Value} < 0.01$). Interest rates and deposit rates combined can explain 51.86% of the changes in accessibility to loans in Gitaru Division. The study concludes that loan accessibility in Gitaru area by small and micro enterprises is highly dependent on the level of interest rates that are charged by the banks, with a negative relationship between the two. As the levels of interest rates increase, the level of loan accessibility by this target group decreases, and vice versa. Financial institutions are working hard to make their presence felt in the rural areas as was evidenced by the high rate of ownership of bank accounts by respondents in the area. This has not, however, increase the levels of loan accessibility as the bank terms remain prohibitive to local businesses, most of which can be categorized as small and micro enterprises. The study recommends that banks in Kenya need to establish cheaper loans to fit into the needs of the small and micro enterprises, through the setting up of partnerships and joint ventures with the local communities, and businesses. Further, the central government will also have to participate in the empowerment of small and micro-businesses through the provision of education and offering cheaper financing to these businesses. The local businesses on their part need to plan their finances better to equip them with better business management skills and financial management capability to enhance their cash flow capability, which will lead to more certain cash flows and lower the interest rates offered by banks eventually.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The capacity for micro and small (MSEs) to fulfill their potential in an economy depends on the availability of finance (Whincop, 2001). Finance in general and credit in particular is especially important for MSEs, since they are unable to finance themselves through retained earnings or equity financing.

Micro and small scale enterprises have been accepted worldwide as instrument of economic growth and development. No wonder that government, particularly in the developing countries has made tremendous efforts and establish policies to enhance the capacity of micro and small scale enterprises (MSEs). However, despite government institutional and policies support to enhancing the capacity of small and medium scale enterprises, small and medium scale enterprises has fallen short of expectations. This, then, generated serious concern and skepticism on whether MSEs can bring about economic growth and national developments in Kenya. This study stems out to examine factors that inhibit effective utilization of microfinance products by small and medium scale entrepreneurs in Gitaru Kenya.

Kenyan small-scale enterprises are a mixture of self-employment outlets involving a dynamic array of activities mainly concentrated in urban cities/towns and trading centers in the rural areas. These small enterprises cut across all sectors of the Kenyan economy and provide one of the most prolific sources of employment, income generation and poverty reduction (Ministry of Labour and Human Resource Development - GoK, 2004). The sector plays an important role in industrialization, promotion of rural urban balance and indigenous people's participation in the economic development. CBS-GoK (2003) indicates that employment within the small scale sector increased from 4.2 million persons in 2000 to 5.1 million persons in 2002, accounting for 74.2% of the total persons engaged in the sector in 2002.

The sector had contributed 18.4% of the country's GDP by 2002. However, despite the critical role played by the sector, it is faced with many challenges and constraints that

inhibit the realization of its full potential. Lack of power to generate sustainable income from business operations coupled with limited access to credit from financial institutions due to high interest are key factors that make the sector players confine themselves to narrow markets where intense competition drive prices down resulting in low profit margins. This has led to either early deaths of their businesses (closure) or retardation of the enterprises. On the one hand, very few manage to graduate to medium and large-scale enterprises (Ministry of Labour and Human Resource Development -GoK, 2004). On the other hand, credit supply appears to be very high. This is demonstrated by the level of competition among credit lending institutions. Each institution is hawking their own tailor-made credit products that are targeting different needs of low income earners. From this observation, there seems to be an imbalance between utilization of circulating credits and MSEs' growth and expansion MFIs, Entrepreneurs, Research institutions and community. These stakeholders design financial and training programs among others.

1.1.1 Interest Rates

Interest rates can be defined as the premium received by the lender after a stated period of time. From the borrower's point of view, it is the cost of capital at the time of obtaining a loan. The equilibrium rate of interest is determined by factors affecting the supply and demand for money. Operationalising interest rate in the context of demand for credit by MSEs show the interplay of several factors. According to Funkor (2000), some of the factors include high inflation, cost of intermediation, high credit risk, exchange rates, high bank rate and high Treasury bill rates.

Pandey (1991) defines interest rates as "a price for a loan capital" it is the price that a borrower pays in order to be able to consume resources now at a point in time future. On the other hand interest rates are a price that lenders receive for foregoing current consumption in order to take advantage of resources at some point in future Apps. According to Julian (1986) interest rates are 'a price lenders expect to receive for exchanging current claims for greater future claims. It is also a price that borrowers pay for the goods and services extended to them by the lenders'.

Babihuga (2003) defines interest rates as a price charged to a borrower for the loan (of money).She goes on to distinguish interest rate from an ordinary price. She writes that

“this price is unique because it is really a ratio of two quantities; the total required fee a borrower must pay to a lender to obtain the use of credit for a stipulated period and the amount of credit actually made available to the borrower.

The interest rate charges on a loan will depend, to some extent on the risk of default. Borrowers that look equally risky to the bank suffer rising interest rates. This is due to the fact that banks tend to incorporate the risk factor in the loan portfolio that normally carries a higher interest rate (Kohn, 1993). Banks have experienced numerous frustrations in attempting to recover non-performing loans through the judicial process, this makes the banks incur additional costs in lengthy litigation processes. These costs are reflected in interest rates. Julian (1986) provides that a large increase in government borrowing to finance current spending will push up interest rates if there is no parallel increase in private sector saving. This will occur even with stationary inflation rate.

Real interest rates in one country will be influenced by external factors such as interest rates in other countries and expectations about exchange rate movements. When interest rates in overseas countries are high, interest rates on domestic currency investments may need to be comparably high to avoid capital transfers abroad and a fall in the exchange rate of the domestic currency against other currencies (Cox, 1991).

1.1.2 Accessibility to Credit

‘Credit accessibility’ refers to the ease or difficulty of acquiring credit by borrowers for purposes such as to enhance business performance (Salahuddin, 2006). In order to ensure continuity and realized success, MSEs need to acquire the necessary financial resources/credit to allow them to invest now so that they will obtain income in the future (Audretsch, 2002). Acquisition of such credit is difficult for the MSEs because of high rates of interest on lending, and this has constrained private sector demand for the credit and limited their progress (Kikonyogo, 2000).

Access to credit also reduces the opportunity costs of capital-intensive assets relative to family labor, thus increasing labor-profitability and raising labor productivity, a crucial factor for development, especially in many African countries (Delgado 1995; Zeller *et al.*, 1997). The accessibility of credit is still fairly constrained, and particularly access to

formal credit for small and medium farmers. These forces constrained borrowers to turn to more expensive and unreliable informal credit sources (Okurut *et al.*, 2004).

1.1.3 The effect of Interest Rates on Accessibility to Credit

The issue of high interest rates being charged on borrowers of funds has posed a great problem to owners who can only borrow in small amounts. This has led to either closure or stagnation of their business and those who have not began the business end up not starting one because of lack of lack of capital. MSEs suffer from loss of profitability and lack of investments, which promote growth, due to poor credit offered to them and non access to bank loans. This is due to high costs of borrowing from commercial banks and other financial institutions.

Credit markets are partly shaped by lenders' strategies for screening potential borrowers and for addressing opportunistic behavior encouraged by the inter-temporal nature of loan contracts. These problems are acute in the developing countries where information asymmetries are more pervasive especially among the resource base poor. Financial markets in such countries tend to be highly dualistic and fragmented with weak linkages between the formal and informal components. The formal segment of the markets tends to be characterized by the market imperfections demonstrated by high concentration ratios with only a small number of financial institutions exerting considerable market power. Attempts to protect depositors against corporate excesses often lead to share capital requirements that work against the need to encourage competition. On the demand side, firms choose between external and internal financial sources in consideration of the need to maximize profits (Dercon & Fafchamps, 2000).

Credit markets are peculiar as their transactions involve heterogeneous goods since the qualities of credit contracts vary due to differences in the creditworthiness of borrowers. Rather than being contemporaneous, debit transactions are also inter-temporal since credit is exchanged for a promise to repay later. Lending activities also tend to be transactions intensive and the information available to contract parties not always symmetric. The parties often possess different information on risks and profitability of projects. Intermediaries tend to have only subjective assessments of projects for which funds are sought. High transactions costs come on the way of attempts by intermediaries

to procure adequate information from borrowers. These and other conditions mean that changes in the price of credit affect the quality of the debt contract and the intermediary's expected returns (Jennings, 1994).

In developing countries, informal credit arrangements enjoy less transaction costs and loan losses because they are restricted to close networks' that derive from kinship, neighborhoods, professions, workplaces, economic activities and other mechanisms that encourage regular interactions. They therefore offer solutions to the information and enforcement problems that formal arrangements often face. However, the volume of credit available through these informal arrangements ends to be highly limited (Mookherjee, 1999).

On the other hand, the consumption of credit tends to be inversely related not only to interest rates but also to collateral requirements. Micro businesses tend to have a poor collateral base and therefore get excluded from the credit market. Even when their asset base is rich, property rights problems reduce the collateral value of such assets. Where entrepreneurs can successfully seek out credit from formal sources, they may not bother to borrow because of limited ability to comprehend debt management and costs of borrowings, fear related to potential hidden costs, previously disastrous experiences with financial services, presence surrogates such as savings and credit associations, and cultural norms that discourage borrowing. The mere presence of financial services even within very close proximity does not therefore guarantee the demand for and use of credit. The credit seeking decision is a three-stage process, in the sense that enterprises have first to decide on whether or not they need credit. Once the decision at this level is in the affirmative an entrepreneur then decides on an appropriate source of approach. A decision has also to be made about the level of credit to seek out (Kimuyu & Omiti, 2000).

1.1.4 Micro and Small Entrepreneurship in Gitaru Division, Kenya

Small-scale investments are reputed to be behind most of the socio-economic transformation of many economies. They play a significant role in development especially in the third world countries and generate wide-spread economic benefits. Survey studies done in other countries such as Malawi, by McPherson and

Michael (1991) and in Zimbabwe by McPherson and Michael (1998), underscore the importance of the small-scale enterprise sector in employment participation and income generation for the bulk of low-income workers.

In Kenya, the significance of the sector can be seen in terms of its contribution to economic development. The CBS/ICEG/K-Rep (1999), revealed the existence of some 1.3 million small enterprises employing as many as 2.4 million Kenyans. CBS-GoK (2007) reported that total employments in Kenya including small-scale activities, stood at 8.7 million persons in 2006, up from 8.3 million recorded in 2005. From the 469 new jobs generated within that period, 89% were in the informal sector. Other studies have shown that the sector is dynamic (Ministry of Labour and Human Resource Development, 2004) and has the potential of generating wide spread economic benefits which in turn lead to reduction of poverty among low income earners.

The sector had contributed 18.4% of the country's GDP by 2002. However, despite the critical role played by the sector, it is faced with many challenges and constraints that inhibit the realization of its full potential. Lack of power to generate sustainable income from business operations coupled with limited access to financial services are key factors that make the sector players confine themselves to narrow markets where intense competition drive prices down resulting in low profit margins. This has lead to either early deaths of their businesses (closure) or retardation of the enterprises. On the one hand, very few manage to graduate to medium and large-scale enterprises (Ministry of Labour and Human Resource Development -GoK, 2004). On the other hand, credit supply appears to be very high. This is demonstrated by the level of competition among credit lending institutions. Each institution is hawking their own tailor-made credit products that are targeting different needs of low income earners. From this observation, there seems to be an imbalance between utilization of circulating credits and MSEs' growth and expansion.

Small enterprises have become important contributors to the Kenyan economy. The sector is contributing to the national objective of creating employment opportunities, generating income and providing a source of livelihood for the majority of low-income

households especially in rural Kenya (Republic of Kenya, 2002). Despite the significant role played by the sector, the market players have over the years experienced many constraints that have inhibited realization of their full potential. According to the CBS/ICEG/K-Rep (2009), the two key challenges include poor access to markets and limited access to financial services. Lack of tangible security, the procedural bureaucracies of credit borrowing were some of the facts highlighted that constrain small-scale entrepreneurs from accessing credit from formal credit institutions. The impact of these challenges has led to majority of MSE operators confining themselves to narrow markets where profit margins are low due to intense competition. Consequently, most of the MSEs are stagnating, retrogressing to micro status or closing after few years of operation. Very few manage to graduate to medium and large-scale enterprises (Ministry of Labour and Human Resource Development-GoK, 2010).

This problem is also evident in Gitaru Division whose occupants are mainly farmers and business men who enjoys the benefits and losses of being near the capital city and are mainly involved in as small scale trading, farming (i.e., zero grazing, and poultry keeping) as well as small scale real estate investment with landlords who build houses either semi-permanent or permanent, to house people working in town who have migrated from the rural areas. However only a few people are successful and majority are leaving below the poverty line despite the fact that they have pieces of land that are fully under-utilized. They keep cows (zero grazing) but they do not maximize the production. They rear chicken but are unable to feed them well to get good results due to lack of resources. As a result of these, there is a great social problem in this area, sighting examples as: unemployment, drinking of illicit brews that continue to kill many, insecurity and escalating spread of AIDS. Despite the presence of microfinance institutions in Gitaru, very few people have embraced the products offered. This seeks to establish the influence of interest rates on accessibility to credit by the MSEs in this region.

MSEs are generally undercapitalized, suggesting major operational difficulties in accessing credit and pursuing corporate goals. Kimuyu and Omiti (2000) observe that 18.4% of the MSEs in Kenya cite access to credit as their second most severe constraint

after market access. Further the 1999 National Baseline survey (International Centre for Economic Growth *et al.* 1999) indicates that 70% of the MSEs in Kenya require loans that do not exceed KSHs. 20 000 (US\$ 285) while 96.3% do not require loans exceeding Kshs.100 000 (US\$ 1428). Ondiege (1996) demonstrated that access to credit is associated with improved performance of MSEs in Kenya.

In Kenya there is a widespread concern that banking systems are not providing enough support to new economic initiatives and in particular to the expansion of MSEs and agriculture sector Sacerdoti (2005). It is argued that faster economic growth will not be possible without deepening of the financial system and in particular, more financial support from the banking sector to the MSEs. Banks remain highly liquid and reluctant to expand credit other than to most credit worthy borrowers which in most cases excludes the MSEs.

1.2 Research Problem

There is considerable variation in the criteria for success used in previous studies. Empirical studies of factors affecting SME success can be roughly divided into two groups according to whether they focus on a quite limited set of variables or try to capture more holistic profiles of successful MSEs. Previous empirical research has used both surveys and case studies. There are also some compilations of the results of previous studies of the factors contributing to firm success. For instance, Storey (2000) has compiled the results of previous studies focused on the birth, growth and death of small firms, on the basis of which he presents some normative “dos and don’ts” lessons for small firms. Islam *et al.* (2008) in their study of MSEs in Bangladesh found that product and services, the way of doing business, management know-how and, external environment are most significant factors in determining the business success of MSEs.

Steel and Webster (1991) observed that despite the wide-ranging financial reforms instituted in various regions, MSEs face a variety of constraints due to the difficulty of absorbing large fixed costs, the absence of economies of scale and scope in key factors of production, and the higher unit costs of providing services to smaller firms. Below is a set of constraints identified within SME development.

Access to finance has remained a dominant constraint to small and medium enterprises. Credit constraints pertaining to working capital and raw materials are cited by respondents in a survey conducted by Parker and others (1995). Aryeetey *et al.* (1994) reported that 38% of the MSEs surveyed in Ghana mention credit as a constraint; in the case of Malawi, it accounted for 17.5% of the total sample (Daniels & Ngwira, 1993). This stems from the fact that MSEs have limited access to capital markets, locally and internationally, in part because of the perception of higher risk, informational barriers, and the higher costs of intermediation for smaller firms. As a result, MSEs often cannot obtain long-term finance in the form of debt and equity. Ideally, small businesses should have well-established systems for gathering information and forecasting, and also addressing several constraints to minimize the access to credit problem.

Empirical studies done in Kenya include that done by Kibas (1995) to determine the impact of credit to MSEs development. He found that clients reported improvement in their sales, profits, assets, cash flows, management practices and family welfare. New jobs and linkages with other organizations had also been created. This therefore, demonstrates that access to credit influences performance of MSEs. Rukwaro (2000) studied influence of credit rationing by MFIS on the operation of MSEs Mokogi (2003) studied the economic implication of lending of micro-finance institutions on. Mutugi (2006) studied the responses of micro finance institutions in Kenya to the turbulent business environment. Muchiti (2009) studied risk management strategies adapted by commercial banks in lending MSEs. None of the foregone studies have undertaken to determine the relationship between access to credit and financial performance of MSEs in Nairobi. Past researchers have concentrated on factors affecting accessibility of credit among the SME's, in the traditional financial transactions. However modern trends in the financial transactions have brought about different ways in these operations. An example is the mobile telephone money transactions by the unbanked traders. Other researcher looks at the factors affecting accessibility to credit. The study will therefore endeavor to find out to the extent to which interest rates affect accessibility to credit by the MSEs in this region. The study answered the following question: What effect does the interest rate has on accessibility to credit by MSEs in Gitaru division, Kenya.

1.3 Research Objective

To establish the effects of interest rates on accessibility to credit by MSEs in Gitaru

1.4 Value of the Study

The loans advanced to small scale traders come with costs. That is, the interests charged on the principal sum. Therefore the traders are under the obligation to pay the principal sum plus the interest, at the end of the agreed duration. In some cases, the traders are unable to pay in time leading to foreclosure on their businesses. The study is therefore significant to the traders since it will establish whether the loan facilities are worth the risk of losing their businesses; through liquidation by financiers in case of default.

In the recent times the Government of Kenya (GOK) has started a number of loan schemes for various social groups. Among them is the Youth Enterprise Fund (YEF); the Women Enterprise Fund (WEF); and the Uwezo Fund. There is need to monitor these funds to find out factors that may form hindrances to their uptake. The factors may affect accessibility of the funds and consequently the performance of the businesses by which they are funded. Therefore the survey is of significance to the government of Kenya, for the purpose of increasing borrowing of the credit, among its beneficiaries to increase business growth and the consequent social standard improvement. Knowledge is cumulative. Important information can be acquired about a research topic from similar work done, on the same area of research by future researchers. Therefore the survey is much significance to the research institutions, students and other researchers who would get the findings useful in their investigation in the area of study.

There has been increased activity from financial institutions on loan facilities targeted at small traders. Many banks for instance have started projects and put a lot of resources, their aim being to attract these traders. The result of the survey would therefore be of so much significance to these institutions since they would know from the results of the study the constraints faced by the borrowers of credit and reduce them, to increase the lending.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter looks at the documented literature on the influence of interest rates on accessibility to credit, and is organized as follows: review of theories; determinants of accessibility to credit; empirical review; and a summary of the literature review.

2.2 Theoretical Literature Review

The section discusses the broad spectrum of theoretical orientations of stock price theories that exist in literature. It addresses such theories as the demand theory, commodity theory, and Keynesian theory, as discussed below:

2.2.1 Demand Theory

Demand theory was first raised as a fundamental principle of microeconomics by a French economist Walras (1891). The theory is an analysis of the relationship between the demand for goods or services and prices which examines purchasing decisions of consumers and subsequent impact of prices on commodity demanded. According to Walras (1891), price of a commodity influences its demand. This theory was criticized by later up-coming economists as shallow; however, they used it as a base to develop the law of demand, stated by many economists as: an inverse relationship exists between the price of a commodity and the quantity demanded of the product, that is, when the price of some commodities goes up, the quantity we consume of these commodities goes down and vice versa, other things held equal (Lispsey *et al.*, 1987; Livingston & Ord, 1994; Saleemi, 2000; Mudida, 2003).

2.2.2 Commodity Theory

Livingston and Ord (1994) argued that the amount an individual wishes to buy of a commodity depends on several factors. Firstly is his/her taste or preference, which may be influenced by factors such as age, sex, education or religion. Secondly, the amount an individual buys may depend on the price of the commodity. Therefore, if the goods are very expensive, the buying power is reduced and vice versa. In the credit market, this consideration is on implicit and explicit costs of credit, which are added costs

to business operators and have to be considered when making a decision to borrow or not to borrow and from which source. Thirdly, Livingston and Ord (1994) explained that amount bought is affected by availability of other goods. This applies more to close substitutes like in this case, consideration of borrowing credit from commercial formal institutions, formal government subsidized institutions, or from informal credit markets. If formal markets prove expensive, borrowers are likely to turn to informal markets. The opposite will apply if the informal markets are expensive. Lastly, Livingston and Ord (1994) pointed out that the size of a household's income affects the amount it buys of a commodity. If the income increases, they will be able to buy more. This argument holds only for necessity goods such as credit borrowing to finance business operations, otherwise it will not apply to inferior goods.

The theory of Livingston and Ord (1994) can be supported by the econometric model of Mukras (1993) on demand which is expressed as;

$$Q_c = f(Y, P_c, P_r)$$

Q_c = Quantity demanded of a commodity

Y = Income

P_c = Price of commodity

P_r = Price of related commodities

The broad conclusion of this econometric model on analysis of demand is that quantity demanded of a commodity is a factor of income, price of the commodity and price of related commodities. David (2001) also argues that when cost of credit goes up, the marginal utility per Shilling raised from that credit goes down. The household therefore chooses to consume, or use less of the credit. The concept of utility and marginal utility used by economists explains consumer demand on a commodity. Utility is the capacity or power of a commodity to satisfy the desire of a user (Lisper *et al.*, 1987). Any commodity that satisfies human wants has utility. For example, if credit borrowed will satisfy financial needs of a household, then credit has utility (Saleemi, 2000). The main objective of any individual business operator is to maximize satisfaction out of any

financial support borrowed, given or self-made. Jhingan (2001) highlights the application of the Keynesian Theory given by Keynes (1891) to underdeveloped countries. The theory is about relationship between consumption and income. Jhingan (2001) points out that one of the important tools in Keynesian economics is the propensity to consume. It further states that when income increases, consumption also increases but by less than the increment in income. This behavior of consumption further explains the rise in savings as income increases.

2.2.3 Keynesian Theory

Keynesian theory (Keynes, 1891) analyzes the consumption behavior that relationships between income, consumption and savings do not hold in underdeveloped countries because people are too poor. When their income increases, they spend more on consumption because their tendency is to meet their unfulfilled wants. Keynes' assumption was supported by Long (1968) when he set-up a formal model for household borrowing where the household has to choose the allocation of wealth between present and future consumption, between holding capital in risky and less risky forms, and the allocation of time between labour and leisure. Based on data from India and Thailand, his results indicate that giving loans to poor households at low interest rates will do little to improve their plight unless the loans are accompanied by other inputs which shift their productions.

Nyandemo and Singh (2003) defined demand as that quantity of a commodity which consumers are willing and able to purchase at a given price over a period of time. Small-scale industry is mostly operated by people with low income who have many needs but have limited purchasing power. Though the need for credit may be there, the sector operators may not be able to demand credit. An individual's level of income has important effect on his/her level of demand for most products. Mudida (2003), points out that if income increases, the demand for most goods will increase. Small-scale investors tend to cluster and limit their business activities to similar products mostly of low quality that target low income earners. This leads to low business returns that cannot empower the business owners to borrow credit from formal institutions where the trader will be required to undergo implicit and explicit costs. Mudida (2003) further

states that prices of related goods, which may be either substitutes or complementary goods or services, affect behaviour of consumers. The CBS-GoK, (1993) showed that the bulk of the small-scale enterprise credit came from informal savings and credit associations that is 69.1%. This finding compares with the 1995 Economic Survey which showed that 10.8% of the small enterprises had accessed credit and that only 3.4% received credit from formal sources.

2.3 Determinants of Accessibility to Credit

The section addresses the various determinants of accessibility to credit by micro and small enterprises, key among them interest rates on loans, collateral, and the number of lending institutions as discussed below.

2.3.1 Interest Rates on Loans

Every business needs financing, even though at first glance it might appear that funding is unnecessary. It's important that financing be as efficient as possible (Stutely, 2003). Stutely argues that the borrower should be able to put the cost of all financing on the same basis, comparing them and come up with the one that gives the lowest cost financing option. Banks have often been criticized for having high interest rates charged on loans. But sometimes, there are factors beyond their control. For example the amount of interest payable on loans depend on interest rates charged, which is driven by the base lending rate of interest set by the Central Bank of Kenya.

The amount of interest rate charged is sometimes, intertwined with the security of the loan, and the use for which it's to be used, or the nature of the business. That is the more secure loans are charged low interest rates due to, their low risks involved (Management July, 2008). This leads the SME's to the micro finance institution, who lend unsustainable interests on short term loans. The high interest rates, discourages the entrepreneurs in this sector from borrowing. It's because the interest payment come out of profit and can be reduced by the borrowing business if profit and trading conditions are unfavorable. A loan does not carry ownership right, if a trader is unable to meet the loan and the interest repayment then bank or lender may decide to foreclose on the business and appoint a receiver to take day to a day running of the business. the receiver has to decide whether the business is able to continue trading under its guidance and

generate enough cash to pay , the creditors or whether the business should be closed, the assets sold off and the cash generated used to pay the bank and the creditors. This may discourage business people who may fear such situations to happen to their businesses. Another contributing factor to discouraging interest rates is the structural weakness inherent in Kenyan banks. They do not have stable source of funding, they can only lend on short term basis. Apart from becoming a problem to SME's who seek funding over a number of years, the lending rate is high since the banks may lack stable financial source. All this contribute to the rate being a constraining factor in accessibility to credit among the SME's.

2.3.2 Collateral

Formal banking institutions always demand collateral to act as a security on loans. This is often in the form of houses or deed to some immoveable assets. This precondition plays a major part in the accessibility of loans among the SME's since majority of they cannot attain these requirements. The situation may be more complicated for women entrepreneurs, who may not have right of ownership to expensive property including land and houses.

In the site www.allbusiness.com, collateral is again highlighted as a major constraint to credit accessibility. In a survey conducted at the site 92% of the firms surveyed had applied for loans, and were rejected while others had decided not to apply since they 'knew' they would not be granted for lack of collateral. Therefore, while most of the entrepreneurs, in this study recognized the importance of loans in improving their businesses, they cited collateral as a major impediment to loan accessibility and therefore business growth. Almost all respondents started their businesses from their own savings or loans from relatives since they did not demand security.

Beaver (2002), explains that the historical development and the associated culture, of the banking system underpins the problem of the emphasis on the provision of collateral as a primary condition in lending. Banks have always adopted a risk averse stance towards small firms, with an accompanying inability to focus on the income generating potential of the venture, when analyzing the likelihood of loan repayment. Therefore, although

there has been a considerable progress in the lending to the SME's, banks remain cautious because many these businesses have neither, collateral nor, asset registers.

2.3.3 The Number of Lending Institutions

The number of financial institutions offering credit services to SME's is a constraint to the development of the sector. In a study conducted in the site, www.allafrica.com, by a nonprofit organization, World Women Banking providing credit access to poor women, fewer than 2% of low income entrepreneurs, worldwide have access to credit facilities. It was further noted that the banking sector penetration in a typical sub-Saharan African country stands at 1% of GDP, far below far below a more advanced such as Brazil where penetration approaches 25% or industrialized nation where its 85%.

In Kenya, there are less than 50 commercial banks serving a population of 34 million people. Among the major commercial banks and other market share includes, Commercial bank(14.7%), Barclays (14.26%),and Standard Chartered(8.4%), there are also banks classified as small which as small banks which includes; Consolidated, Habib, Victoria, Equatorial Fidelity Bank among others. Just 60% of Kenyans have access to banks or microfinance institutions with 30% of rural users having no access to banking services at all, according to the data by Financially Deepening Kenya (FSD),Business Daily(may 6 2009) this further shows shortage in supply of financial services including credit compared to demand.

Recently, this increase in demand for this services has led to emergence of mobile telephone money transfer services with the introduction of the M-pesa and Zap services by mobile telephone companies, Safaricom and Airtel respectively. With over 6.1 million subscribers, the M-pesa is becoming an important financial transaction tool for SME's with the unbanked even turning it into a banking institution. While the service has it is currently, cannot offer credit service the banks are adopting the system in order to attract the small entrepreneurs, who require micro finance products including loans. The growth of mobile money transactions shows the demand for formal financial services including credit services far outstrips the supply. In Gitaru Division, the concentration of banking services is even much lower with few branches of the major banks operating. The other lending institutions operating include the micro finance companies.

Wanjohi and Mugure (2008), in acknowledging that credit sources remain a major challenge among the SME's, found out that, in the climaxing of the year 2008, money lenders in the name of 'pyramid schemes' came up promising hope among the small investors that they can make it to financial freedom through soft borrowing. The rationale behind turning to these schemes among a good number of entrepreneurs is to seek source of credit which is not available among the formal financial institutions.

2.4 Empirical Review

The empirical review is sub-divided into international and local as discussed in the sections that follow:

2.4.1 International Evidence

Interest, in access to credit has led to a number of impact studies published in scholarly journals. The impact of credit access can be economic, social-cultural or personal. For the purpose of this study, emphasis will be laid on the impact of credit access on the MSEs. A number of studies have been carried out to ascertain the impact of credit access on MSEs. Some of the variables that have been investigated are indicators of change on the enterprise such as increased production, level of sales, net profit, fixed assets and working capital. Some of the studies are discussed below.

A study carried out in the Dominican Republic by ADEMI (1986) concluded that the program had a positive short term effect on the beneficiaries. The study centered on the effect of borrowing by MSEs on variables such as fixed assets, sales, savings, salaries and employment. The findings revealed that fixed assets recorded an increase of between 8 to 54 percent and employment increased by between 2 to 27 percent, and savings by participating MSEs increased significantly.

Bolnick and Nelson (1990) conducted a study in Indonesia to evaluate the impact of credit programs on small enterprises. They found that those who participated in programs their production level increased as well as sales. Khandker (1998) finds that for all the three programs in Bangladesh that he surveyed, household net worth did increase, and the impact was much stronger for men than for women. He further finds that Grameen bank's practice of providing larger loans allowed the bank to gain higher returns on capital and

the effect of borrowing on household net worth was greater. This implies that the size of loans matters and larger loans may be needed for sustained poverty reduction.

Chen and Snodgrass (2001) compared the impact on clients who borrowed for self employment and those who saved with SEWA bank (India) without borrowing and compared both groups to non-clients. The results showed that borrowers were considerably better off than savers, who were in turn better off than non participants. However savers showed the fast rate of income growth but still, borrowers' income remained over 25 percent greater than savers.

In his study Dunn (2001) in Peru conducted a study on the impact of micro credit on micro-enterprises in Peru. She found that program clients' enterprises performed better than non client enterprises in terms of profit, fixed assets and employment. In his study Copestake *et al.* (2001) found that those borrowers who were able to obtain two loans experienced high growth in profits and household income compared to a control sample, but borrowers who never qualified for the second loan were actually worse off.

In his study Barnes (2001) in United States of America examined the impact of continuing clients and new clients of Zambuko trust as well as program drop outs and a comparison group of non participants in Zimbabwe. The comparison group was comprised of entrepreneurs who met Zambuko eligibility requirements including that they had owned an enterprise for at least six months. The results showed benefits of repeated borrowing with only 22 percent of continuing clients earning below a dollar day versus 40 percent of non clients and 42 percent of incoming clients. However, while the income of continuing clients was significantly higher in 1997 than the income of other groups, by 1999 the difference was no longer statistically significant though continuing clients still earned the most.

In their study Beck and Maksomovic (2002) in Italy further clarified how financial constraints affect firms of different sizes. Their study of 4,000 firms in 54 counties offers evidence that large firms internalize many of the capital allocation functions carried out by financial markets and financial intermediaries. They conclude that financial constraints affect the smallest firms most adversely and that an incremental improvement

of the financial systems that helps relax these constraints will be most beneficial for MSEs. The World Development Report (World Bank, 2004) indicates that small firms obtain only 30 percent of their financing from external sources, whereas large firms meet up to 48 percent of their financing needs through external financing.

From a study carried out in India Banerjee and Duflo (2004) studied financial performance of small and medium –sized firms both before and after they accessed loan. The study concluded that these firms began to expand their sales proportionately to the additional loan sources which suggest that these firms must have previously been credit constrained.

In their study Schmidt and Kropp (2007) in Ethiopia pointed out that in most cases the access problem especially among formal financial institutions, is one created by the institutions mainly through their lending policies. What is displayed in form of prescribed minimum loan amounts, complicate application procedures and give restrictions on credit for specific purposes. The type of financial institution and its policy will often determine the access problem to credit borrowers. Where credit duration, terms of payment, required security and the provision of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they will be denied access (Schmidt & Kropp, 2007).

2.4.2 Local Evidence

Okech *et al.* (1995) conducted a study on 16 financial institutions to determine the demand and supply of credit to the MSEs sector. The study revealed that the demand and supply for credit have been on the increase since 1991. It also revealed that the demand has only been met by 16 percent of what is required. The study also revealed that although financial institutions lend to prime borrowers with collateral security, there is need for these institutions to increase their lending to MSEs.

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 is true that concentration of enterprises in rural

trading centers is not adequate for sustaining branches of the Formal financial institutions. As a result, formal financial institutions tend to be limited to large urban centers. The supplementary survey of Kimuyu and Omiti (2000) on institutional impediments to access to credit by micro and small scale enterprises in Kenya, showed that even in 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.

Atieno (2001) in her research argued that access to credit by borrowers can be explained in terms of credit rationing behavior 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. 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. This suggested credit rationing in the credit market. These findings can be assumed not to interpret lack of credit demand among the large number of respondents who indicated did not seek for credit, since only 15% implied they had no need for credit.

Clothing and textile is one of the SME activities with potential for the country's industrialization and it is a major SME activity in urban Kenya McCormic *et al.* (2002). For instance, the regional programme on enterprise development (RPED) study on

manufacturing firms in Kenya, found that the textile sector provide 26 percent of manufacturing employment and is characterised by a high proportion of small sized activities Arguilar and Bigsten (2002). The sector like other SME activities in the country faces constraints of lack of access to financial services.

Kimaru, (2006) in his study “Micro finance and agribusiness growth in Nyeri District,” examined the role micro finance has played in agribusiness growth, and identified the entrepreneur's competencies that influence the growth of the business. He investigated sources and types of micro finance, demography of the entrepreneurs, and limitations encountered by entrepreneurs when acquiring and/or utilizing the micro finance facilities. He concluded that microfinance plays a key role in the agribusiness sector in fostering entrepreneurship in agriculture. He recommended the government's to set up strategies of commercializing the agricultural sector by year 2014. There is an urgent need for massive investment be put in this sector as a significant measure of reducing poverty in line with millennium development goal number one of eradicating extreme poverty and hunger in the world by year 2015 (GOK, 2004) this was to be done by promotion of micro finance.

In her research, Mputhia (2006) looked at “Training an intervention for dealing with the dropout rate of entrepreneurs from Kenya Women Finance Trust in Limuru-Kawangware area”. The study found that all the entrepreneurs with loans were females and had literally skills to cope with basic training and were all willing to attend training if and when availed. The causes of drop-outs were determined and the suggested training programs to reduce the rate of drop-outs included business management skills; leadership, human resource management, counseling, banking, finance management, marketing, interpersonal and public relations, risk management, accounting, book keeping, customer care, risk assessment, assessing new markets, assessing viability of a new business and start-up procedures.

Mulyungi (2007) evaluated the impact of the Kenyan Women Finance Trust Biashara lending scheme on women based small and micro enterprises MSES Thika Municipality. The research focused on Kenya Women Finance Trust members in business from 2001 to 2006 and operating in Thika Municipal. He concluded that the high interest rates and

stringent borrowing procedures were however found to be limiting clientele's ability to expand on business.

It was on the bases of the foregoing problem that the following recommendations were proposed. Firstly, institution of a flexible lending scheme which would allow those with tangible assets to borrow higher loans independent of the cluster groups. Secondly, provide better training programs to uplift the majority of the clients whose educational level was found to be extremely low. Thirdly, enhance savings through advisory services to its clients and formation of stronger linkages with formal financial institutions. Finally, adopt policies which enhance a broader linkage to the wider poverty stricken women.

2.5 Summary of Literature Review

There is evidence from the review of both the theoretical and the analytical literature that research gaps exist. Past researchers have concentrated on factors affecting accessibility of credit among the MSE's, in the traditional financial transactions. However modern trends in the financial transactions have brought about different ways in these operations. An example is the mobile telephone money transactions by the unbanked traders. Other researcher looks at the factors affecting accessibility to credit. The study will therefore endeavour to find out to what extent do the factors i.e. (interest, collateral, illiteracy and proximity to the institution) affect the usage of micro finance in the area under study.

The empirical studies in Kenya have established that the key determinants of accessibility to loans include the level of security collateral available, information availability, formalities involved in the loan raising, credit rationing, with the amount of loans granted being way below what was requested/applied for, among others. These impediments hinder and at times scare away the micro and small businesses as they are not assured that they will get the money they require. The alternatives they seek include going for loans and grants from family and friends, as well as merry-go-rounds which do not always work.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the methods that were used to collect data in the study. It consists of research design, the population, data collection and method of collection, technique of data analysis and presentation.

3.2 Research Design

The researcher used descriptive design, with an aim to achieve the objective of the study. According to Mugenda and Mugenda (2003), this design determines and reports the way things are. It attempts to justify as possible behavior, attitudes, values and characteristics.

3.3 Target

The study was carried out at Gitaru sub-location, which forms the geographical target. Out of an approximate population of 11,000, there are approximately 1746 micro and small enterprises that form the target for the study.

3.4 Sample

Sample size is a small part of the population to be studied and sampling procedure is the process by which samples are selected in a study (Kothari, 2007). Sampling means selecting a given number of subjects from a defined population to be representative of that population. Any statement made about the sample should also be true of the population (Orodho 2002). In this study, the researcher accomplishes this procedure in three steps.

In order to determine the representative sample size of the residents to be drawn from the 1746 households, the study adopted a formula by Kathuri and Pals (1993) for estimating a sample size, n , from a known population size, N .

Fischer's Formula is as below:

$$n = z^2 pq/d^2$$

Where;

n is the desired sample size

z is the standard normal deviation, corresponding to 95% confidence level

p is the proportion in the target population estimated to have a particular characteristic. If there is no reasonable estimate, then use 50 percent (the study used 0.50).

$$q = 1.0 - p$$

d = the degree of accuracy desired, here set at 0.05 corresponding to the 1.96.

$$n = \{1.96^2 p (1-p)\} / d^2$$

$$n = \frac{3.841 \times 0.5 \times (1-0.5)}{0.05^2}$$

$$n = \frac{0.96025}{0.0025} = 384.1$$

The study considered a sample size of 384 representatives out of the 1746 households in Gitaru Division. Simple random sampling was used select the first household selected to participate in the study. Systematic random sampling was then used to sample every 5th consecutive MSE in Gitaru Division.

3.5 Data Collection

The study made use of both primary and secondary data. Primary data was collected through the use of a semi-structured question (Appendix II). In developing the questionnaire items, the fixed choice and opened-ended formats of the item were used. The Questionnaires are preferred for their suitability and easy administration. Kisilu and Delno (2006) give the advantages of using questionnaire. Information can be collected from a large sample, confidentiality is upheld, saves on time and no opportunity for interview bias. It is suitable for data collection because it allowed the researcher to reach a large sample within limited time and ensure confidentiality of the information given by the respondents.

3.5.1 Data Validity and Reliability

According to (Patton, 2000) validity is equality attributed to preposition or measures of the degree to which they conform to establish knowledge or truth. An attitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the attitude. Content validity was established by use of experts (University Supervisor) to determine if the items are a representative sample of the skills and traits that comprise the area that were measured. The experts provided guidance on the content of the instruments that is ensuring that all the research objectives have been addressed by the questions or information sought in the instruments. For a research instrument to be considered valid, the content selected and included in the questionnaire must be relevant to the variable being investigated.

In order to test the reliability of the instruments to be used in the study, the test-retest method was used. Piloting was done in 10 other households in the neighboring Kikuyu division. To determine the coefficient of reliability, Pearson's product moment formula was used. This established the extent to which the questionnaire elicits the same responses every time it is administered. The results obtained from the pilot study assisted the researcher in revising the questionnaire to make sure that it covered the objectives of the study (Fraenkel & Wallen, 2000).

3.6 Data Analysis

The study yielded both qualitative and quantitative results. Qualitative and quantitative data collected were organized and cleaned of any errors that may have occurred during data collection, coded and keyed into SPSS. The questionnaires were checked for omissions and irrelevancies in answers provided, after which they were numbered and entered sequentially into the SPSS database. The data was then analyzed using descriptive statistics (frequencies, percentages, mean and standard deviation). Pearson product moment was used in determining the association between the independent and dependent variables, while a regression model was used to establish the relationships between the variables from the model presented below:

$$AC = \beta_0 + \beta_i I(r)_{it} + \varepsilon \dots\dots\dots(1)$$

Where

AC= Accessibility to Loans as measured by loan uptake by MSEs

$I(r)_{it}$ = The market interest rate for bank I, at time t

β s represent the constants in the model

ε is the error term

As a determinant of both interest rates, the deposit rate, which is peculiar with micro and small enterprises, was used to show how it affects the credit accessibility as a control variable, presented in the following model:

$$AC = \beta_0 + \beta_1 I(r) + \beta_2 DR + \varepsilon \dots\dots\dots (2)$$

Where DR is the deposit rate by micro and medium enterprises

3.6.1 Test of Significant

The degree of accuracy desired, here is set at 0.05 corresponding to the 1.96 level of significant, and was measured through the use of R^2 and F ratio.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter looks at the findings and presentation of the same, as well as interpretation of the findings. Descriptive and inferential analyses are presented in the chapter. The study achieved a 58.59% response rate, with 225 fully filled questionnaires being returned, which is significant according to Zikmund (2003) who posits that a response rate that is above 20% is significant.

4.2 Analysis of Respondents' Bio Data

This section looks at the four respondent demographics that were studied, including gender of the respondents, age, highest level of education, as well as the length of residence by targeted respondents in the Gitaru Division. The overall analysis of the respondents' demographics is as shown in Table 4.1.

Table 4.1: Analysis of the Respondents' Demographics

Attribute	N	%age of the Respondents
Gender		
Male	123	54.67%
Female	99	44%
No Response	3	1.33%
Age		
Less than 25 years	6	2.67%
Between 25 and 34 years	121	53.78%
Between 35 and 44 years	70	31.11%
Between 45 and 54 years	19	8.44%
55 years or more	5	2.22%
No Response	4	1.78%
Highest Level of Academic Qualification		
Degree	32	14.22%
Diploma	64	28.44%
Certificate	50	22.22%
A-Levels	1	0.44%
O-levels	63	28%
Class 8	12	5.33%
No Response	3	1.33%
Number of Years of Residence in Gitaru		
Between 1 and 5 years	128	56.89%
Between 6 and 10 years	58	25.78%
Between 11 and 15years	15	6.67%
More than 15 years	23	10.22%
Less than 1 year	1	0.44%

Source: Research Findings

4.2.1 Gender of the Respondents

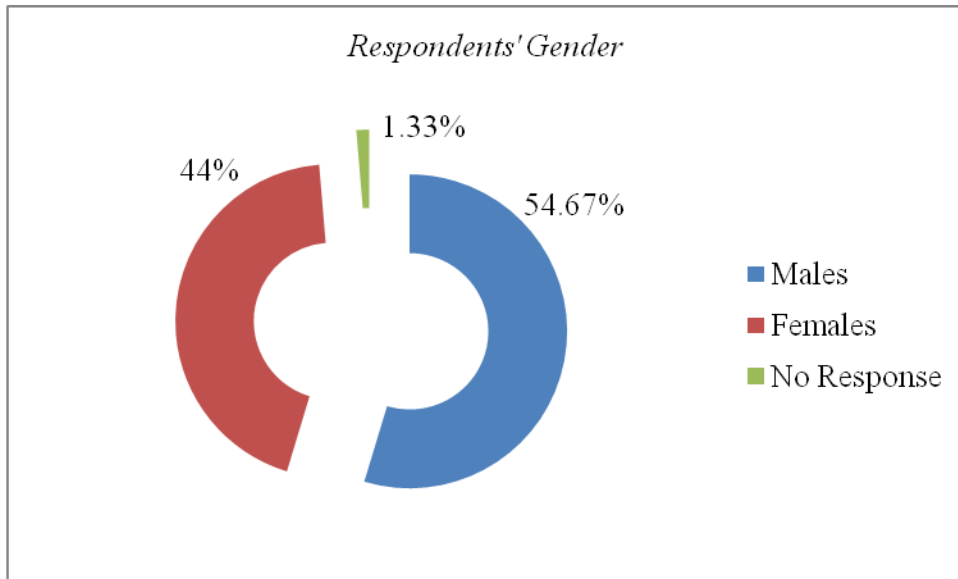
The respondents were distributed such that 54.67% were males, while 44% were females, with the remaining 1.33% of the respondents not responding as shown in Figure 4.1. The results imply that there are almost as many women as men operating in the small and micro-enterprises in Gitaru area, showing better business inclusion of women in the area.

Women comprise 49.6 percent of the world's population but make up only 40.8 percent of the formal global labor market. This is untapped economic and productive potential, which matters because women's economic empowerment is good not only for women but also for society, companies, and the economy. Educated and employed women help reduce poverty by helping their families and communities escape the cycle of poverty (IFC, 2013). Women influence the productivity and competitiveness of future generations by reinvesting 90 percent of their income into their families (World Bank, 2011) and rearing children for success (Silverstein & Sayre, 2009)

If women don't have the opportunity to contribute economically, the years of investment in their education also is wasted. Lack of access to finance and financial services, such as commercial credit, is repeatedly identified as the major constraint for women entrepreneurs. Companies run by women are usually smaller than those operated by men in terms of number of employees, asset value, and annual turnover, besides being less profitable and productive (ILO, 2009).

One reason for these differences: a study using 2005 data from 34 countries in Western Europe, Eastern Europe and Central Asia, and East Asia and the Pacific showed that businesses owned or managed by women were 5 percent less likely to receive a loan, and that women-owned firms had interest rates that were on average 0.5 percentage points higher than those for men-owned firms (Muravyev *et al.*, 2009). In more developed countries, the probability of women obtaining loans was higher, and women had to provide less collateral on average.

Figure 4.1: Gender of the Respondents

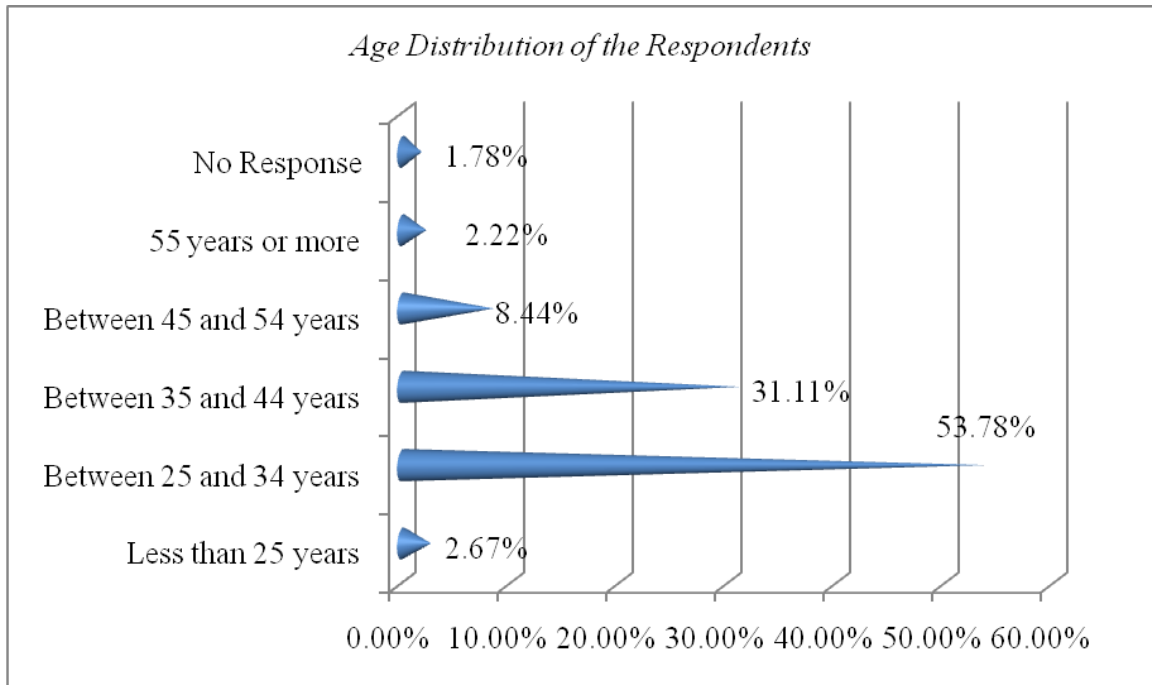


Source: Research Findings

4.2.2 Age Distribution of the Respondents

The respondents' ages were such that 2.67% of the respondents were below 25 years; 53.76% of the respondents were aged between 25 and 34 years; 31.11% were between 35 and 44 years; 8.44% were between 45 and 54 years old while 2.22% of the respondents were over 55 years old; with the remaining 1.78% of the respondents not responding as shown in Figure 4.2. The results show a growing trend, with the majority of the small and micro-businesses being owned by the most vibrant population within the locality, and this decreasing increasing age, probably as a result of an expanding size of business or respondents seeking more formal employment opportunities as their levels of education increasing.

Figure 2.2: Respondents' Age Distribution



Source: Research Findings

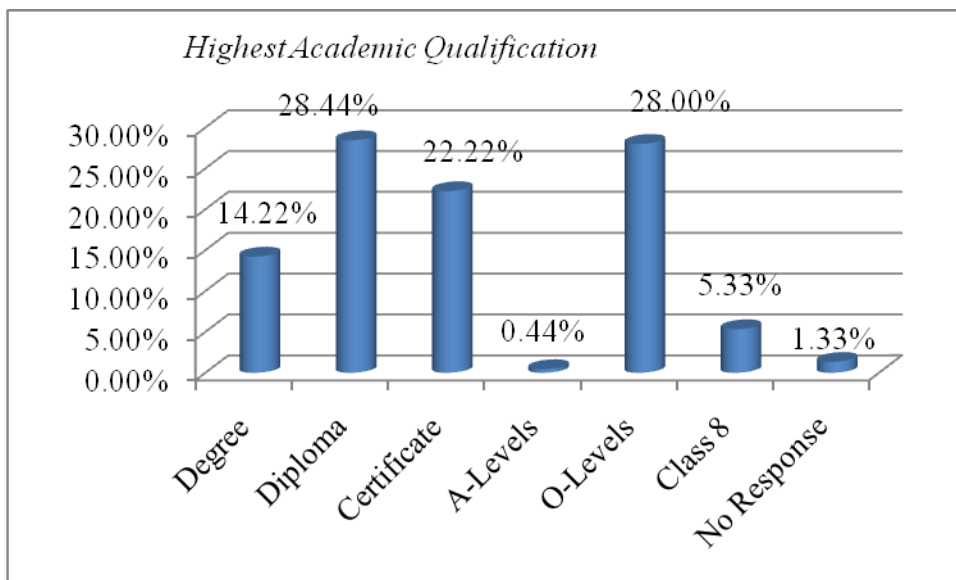
4.2.3 Highest Level of Academic Qualification

The results showed that the most there were 14.22% degree holders of all the respondents who took time to fill in the questionnaire; 28.44% diploma holders; 22.22% certificate holders; 0.44% A-level finalists; 28% respondents had achieved form four education; while 5.33% had achieved a class eight certificate, with the remaining 1.33% of the respondents not indicating their highest academic levels, as shown in Figure 4.3. High level of academic shows a better understanding of business ideas and concepts, though it does not necessarily guarantee business success. More educated business owners are more likely to require learning in the management of affairs to grow their enterprises unlike those with lower levels of education.

The results conform to results from previous research. The positive relationship between education and business success is empirically well-established (Rauch & Frese, 2000). A recent meta-analysis (Unger *et al.*, 2006) reported a significant overall relationship between human capital indicators (including education) and success. This relationship remained positive and significant under all moderating conditions. Researchers agree that

education leads to knowledge and skills that enable business owners to find opportunities and to cope with problems better and, therefore, be more successful (Cooper, Gimeno-Gascon, & Woo, 1994). Unfortunately, however, most often researchers do not distinguish between education and its presumed outcome: knowledge. Education is simply used as a proxy for knowledge. This is problematic because such an approach overlooks individual differences in learning. All individuals are implicitly expected to learn equally well from experience. Clearly, this is not the case (Ford *et al.*, 1998; Sonnentag, 1998). As previous knowledge assists in the accumulation of new knowledge (Davidsson & Honig, 2003), and education incorporates ongoing learning activities that may help individuals develop superior learning strategies.

Figure 4.3: Highest Level of Academic Qualification



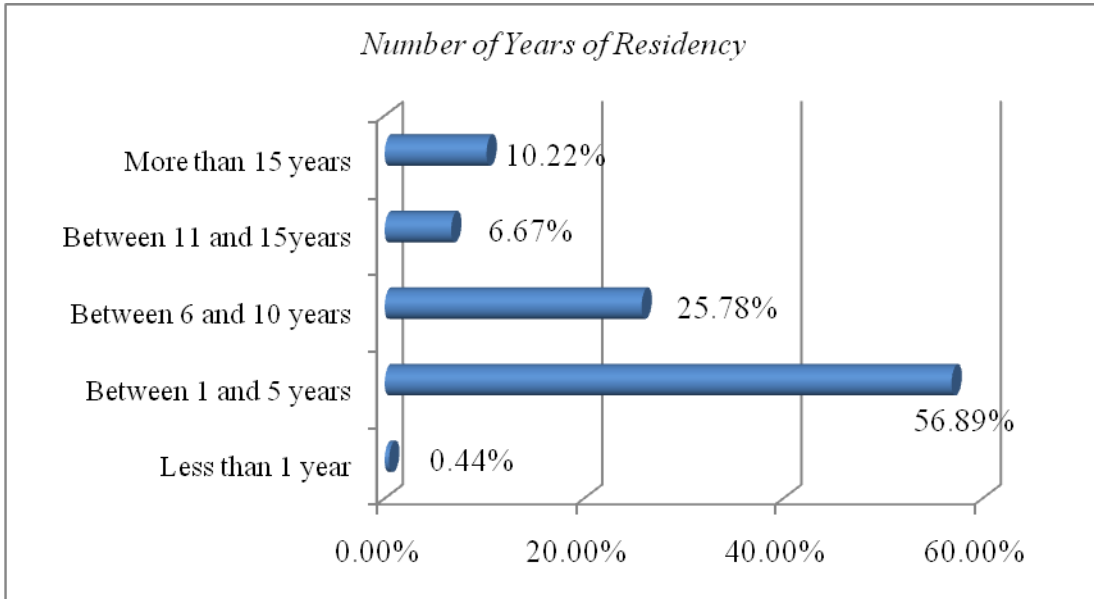
Source: Research Findings

4.2.4 Number of Years of Residence in the Study Area

As shown in Figure 4.4, the majority of the respondents (56.89%) had been doing business in Gitaru Division for between 1 and 5 years; 25.78% have been doing business in the area for between 6 and 10 years; 6.67% have been I business in the area for between 11 and 15 years; 10.22% for more than fifteen years; while a partly 0.44% have been doing business in the area for less than 1 year. The results indicate a low rate of small and micro business success rate in Kenya, findings that are supported by a

observations from a study by Bowen, Morara and Mureithi (2009) who indicated that SMEs are faced with the threat of failure with three out of five start-ups failing within a few months of opening doors.

Figure 4.4: Number of years in Gitaru

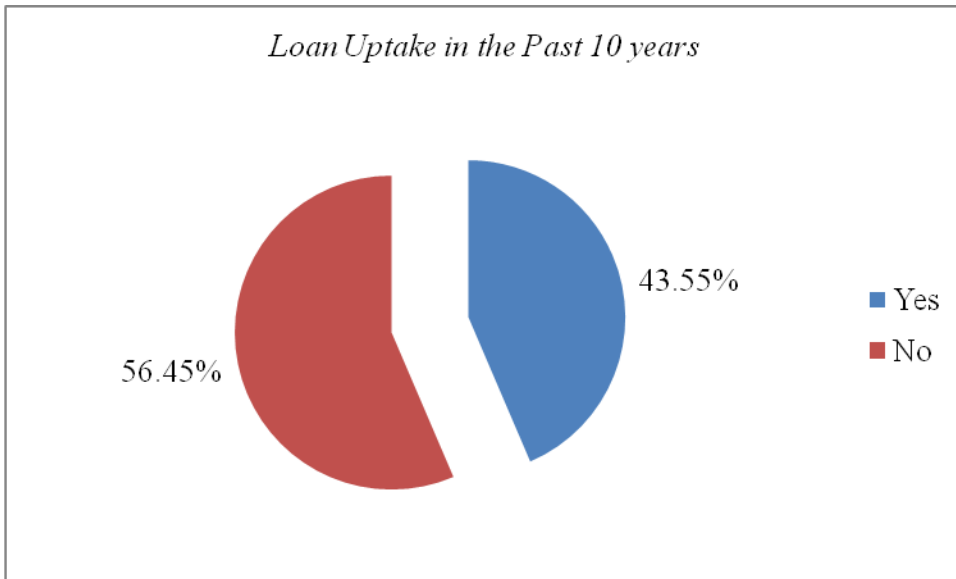


Source: Research Findings

4.3 Loan Uptake from Financial Institutions

The respondents were asked to indicate whether they have, in the past 10 years, taken a loan from any financial institution and 43.55% indicated that they had applied for and taken a loan while the remaining 56.45% of the respondents indicated that they had not, implying a low sourcing for external financing for small and micro enterprises in Gitaru area, which might act as an inhibitor to the growth of businesses.

Figure 4.5: Loan Uptake from Banks in the Last 10 Years



Source: Research Findings

4.3.1 Amount of Loan and Interest Rate Charged

The study revealed that of those who have taken loans from section 4.3.1 above, the highest amount of loan was Ksh. 1.5 million while the least was Ksh. 10,000. The respondents also indicated that they had applied for loans from Saccos, with very low interest rates compared to the interest rates offered by the banks. Table 4.2 shows a distribution of interest loan ranges with the means and standard deviations per range provided. Lower levels of loans attracted a very high average interest rate with loans of up to Ksh. 10,000 attracting an average of an interest rate of 19%; loans of between Ksh. 10,001 up to Ksh. 20,000 attracted an average interest rate of 16%, with an interest rate spread of 2.3452%; loans of between Ksh. 20,001 and Ksh. 30,000 attracted an average interest rate of 15%; loans of between Ksh. 30,001 and Ksh. 40,000 attracted an average interest rate of 14%; loans of between Ksh. 40,001 and Ksh. 50,000 attracted interest rates of 14.3818%; loans of between Ksh. 50,001 and Ksh. 100,000 attracted an average interest rate of 16.375%; loans of between Ksh. 100,001 and Ksh. 200,000 attracted an average interest rate of 16.35% with a spread of 3.09%; loans of between Ksh. 200,001 and Ksh. 500,000 attracted an average interest rate of 17% with a scatter of 3.06%; loans of between Ksh. 500,001 and Ksh. 1 million attracted an average interest rate of 20.5% and had a standard deviation of 9.57%, due partly to an outlier interest rate of 34%.

Finally, loans of over Ksh. 1 million attracted the least interest rate average of 13% with a spread of about 1% as shown in Table 4.2. The levels of interest rates are dependent on varied factors, but the most considerable factor in business is the cash flow generating capacity of the business, with business with high levels of uncertainty in cash flows normally being riskier than those with more certain cash flow generating capacity. Further the term of repayment also determines the level of interest rates, with longer term maturing loans attracting shorter interest rates than shorter term loans.

Table 4.2: Loan Ranges and Corresponding Interest Rates

Loan Range in Ksh.	Actual Quoted Interest Rates (%)	μ (%)	σ (%)
Up to 10,000	19	19	0
10,001 to 20,000	15, 14, 20, 16, 15	16	2.3452
20,001 to 30,000	18, 18, 10, 15, 15, 14	15	2.9665
30,001 to 40,000	15, 13, 13, 15	14	1.1547
40,001 to 50,000	16, 16, 16, 12, 18, 20.4, 10, 10, 14, 12.8, 13	14.3818	3.2526
50,001 to 100,000	15, 13, 12, 16, 19.5, 9.5, 18, 18, 12, 12, 12, 12, 20, 20, 20, 20, 24, 24, 24, 13, 13, 16, 15, 15	16.375	4.2993
100,001 to 200,000	20, 20, 15.5, 15, 14, 16, 12, 16, 20, 20, 17, 10, 18, 14, 14, 22, 15, 13, 14.2, 16, 20, 18	16.35	3.0922
200,001 to 500,000	21.5, 18, 13.5, 16, 18, 12, 18, 19	17	3.0589
500,001 to 1 Million	34, 20, 12, 16	20.5	9.5743
Above 1 Million	12, 12.5, 12.5, 14, 14	13	0.9354
Grand Mean		16.16068	3.06791

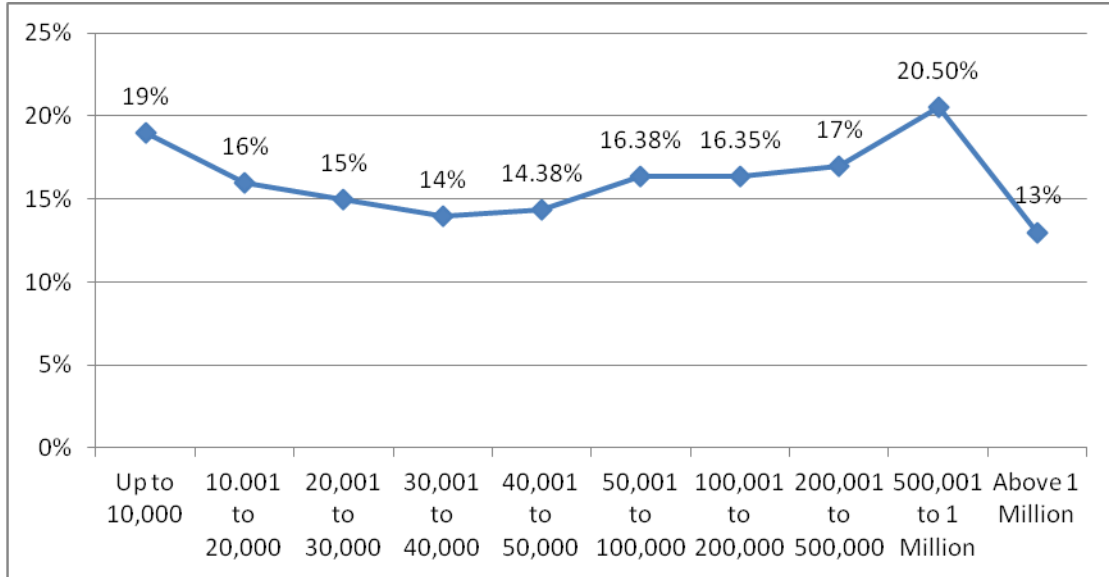
Source: Research Findings

4.3.2 Trend Analysis for Interest Rates on Loan

As shown in Figure 4.6, the study established a trend analysis for the various sizes of loan ranges. The trend shows that interest rates are initially very high (20%) and this decreases gradually to 14% representing the first trough that shows the first optimal level of borrowing for SMEs for loans of between Ksh. 30,000 and Ksh. 40,000. Thereafter, there is a gradual increase in the interest rates, peaking again at 20.505 for loans of between

Ksh. 500,001 and Ksh. 1 million, and then thereafter falling drastically to a minimum of 13% for loans of above Ksh. 1 million.

Figure 4.6: Trend Analysis for Interest Rates

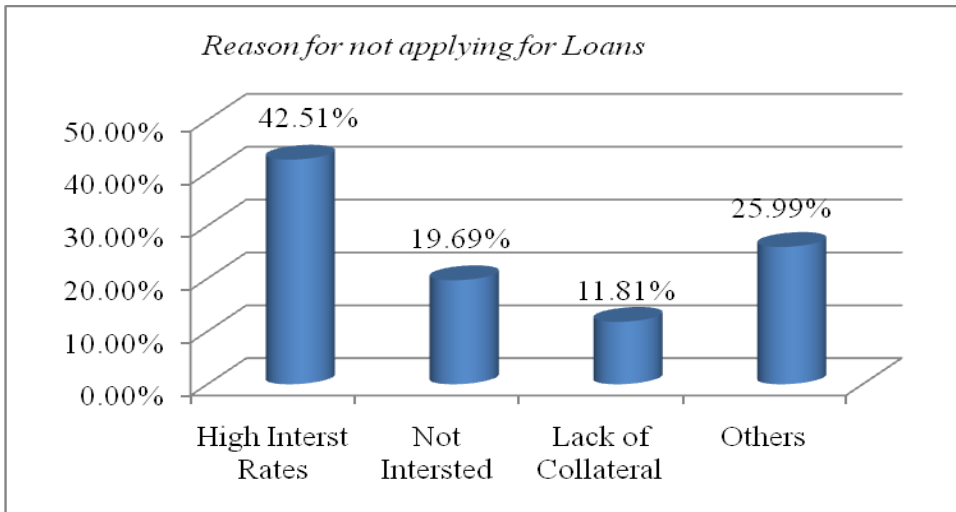


Source: Research Findings

4.3.3 Reasons for not applying for Loans

The study sought to identify reasons why respondents in section 4.3.1 did not apply for loans in the past 10 years, and high interest rates were quoted as the single largest reason why respondents kept away from loans, which was supported by 42.51% of the respondents who did not take up loans in the past ten years, followed by business stability hence no need to take the loans which was supported by 19.69% of the respondents; and lack of collateral required with a support of 11.81%. Other factors that were indicated include inaccessibility, respondents had enough savings, lack of an account with the financial institution, new business, the small size of business, short term repayment terms required, fear of not meeting interest repayments, tough terms of repayment, fluctuating cash flows, lack of a guarantor, and insufficient information, as shown in Figure 4.7.

Figure 4.7: Reasons for not applying for Loans

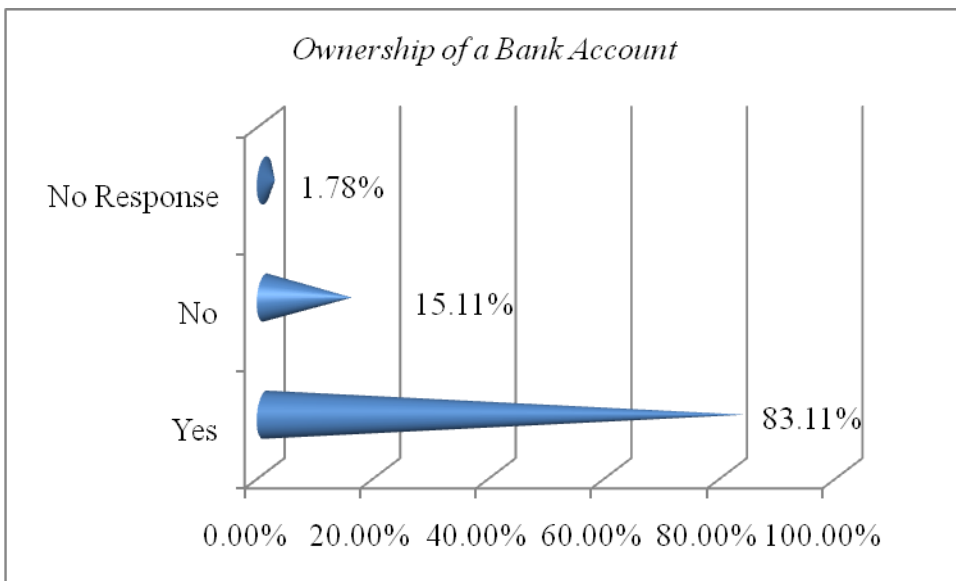


Source: Research Findings

4.4 Deposit Rate

As shown in Figure 4.8, the majority of the respondents (83.11%) have a bank account, 15.11% did not have an account, while the remaining 1.78% of the respondents did not indicate whether or not they have a bank account. This implies that about 83.11% of residents in Gitaru area have access to banking facilities and can as a result deposit their earnings with the financial institutions in the area.

Figure 4.8: Ownership of Bank Account

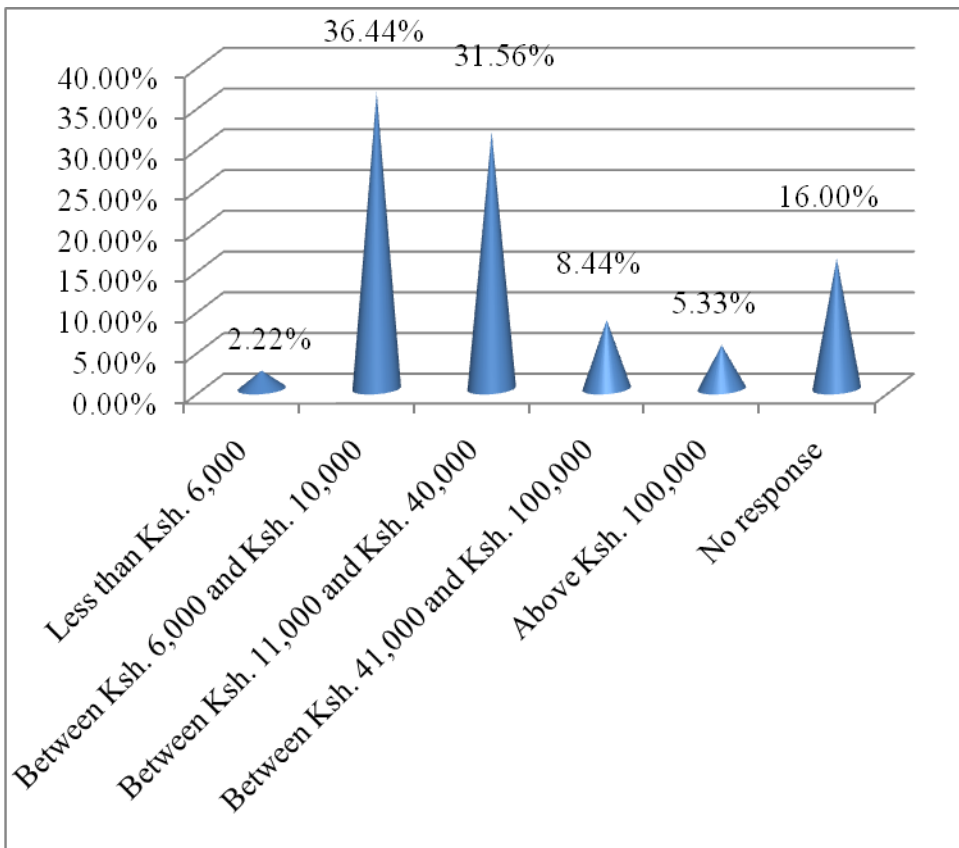


Source: Research Findings

4.4.1 Monthly Deposit Rate

On average, 2.22% of the respondents indicated that they deposit less than Ksh. 6,000 in to their accounts every month; 36.44% deposit between Ksh. 6,000 and Ksh. 10,000 monthly; 31.56% of the respondents deposit between Ksh. 11,000 and Ksh. 40,000 monthly; 8.44% of the respondents deposit between Ksh. 41,000 and Ksh. 100,000 monthly; while 5.33% deposit more than Ksh. 100,000 monthly. The remaining 16% of the respondents did not indicate their monthly deposit rate, and the results are shown in Figure 4.9. The results imply that the majority of the respondents are micro-enterprises with less than Ksh. 40,000 sales or gross income as represented in the figure.

Figure 4.9: Monthly Deposit Rate



Source: Research Findings

4.4.2 Gross Income

The respondents were also asked to indicate their gross incomes, and as shown in Table 4.3, 17,335 indicated that their gross monthly incomes are less than Ksh. 10,000; 16%

indicated that they have a gross monthly income of between Ksh. 10,000 and Ksh. 20,000; 31.115 had gross monthly incomes of between Ksh. 20,001 and Ksh. 50,000; 5.78% had gross monthly incomes of between Ksh. 50,001 and Ksh. 100,000; while 7.11% of the respondents had monthly gross incomes of more than Ksh. 100,000. This shows that the majority of the respondents have a low monthly gross income and given the factor production (selling costs), their net incomes might be very low as to facilitate loan repayments if they have any. Low gross income is thus an inhibiting factor in loan accessibility.

Table 4.3: Gross income of the Respondents

Range	Frequency	Percentage
Less than Ksh. 10,000	39	17.33
Between Ksh. 10,000 and Ksh. 20,000	36	16.00
Between Ksh. 20,001 and Ksh. 50,000	70	31.11
Between Ksh. 50,001 and Ksh. 100,00	13	5.78
Above Ksh. 100,000	16	7.11
No Response	51	22.67

Source: Research Findings

4.5 Correlation Analysis

The associations between interest rate and loan accessibility by small and micro enterprises were determined using Spearman's correlation coefficient as shown in Table 4.4. The results indicate that there was a significant negative association between the loan accessibility and interest rates ($r=-0.418$, $P\text{-Value}<0.05$). This implies that as the level of interest rates increase/decrease, loan accessibility by small and micro enterprises decrease/increases, with a unit change in interest rates causing a change in the opposite direction in loan accessibility by a magnitude of 0.418 in the opposite direction. The results further show that there was significant positive weak association between deposit rate and loan accessibility by small and micro-enterprises ($r=-0.302$, $P\text{-Value} < 0.01$). This implies that deposit rates play positive role loan accessibility.

Table 4.4: Correlation Matrix

		Loan Accessibility	Interest Rates	Deposit Rate
Loan Accessibility	Pearson Correlation	1		
	Sig. (2-tailed)			
Interest Rates	Pearson Correlation	-.418(*)	1	
	Sig. (2-tailed)	.020		
Deposit Rate	Pearson Correlation	.302(**)	.494(**)	1
	Sig. (2-tailed)	.001	.003	

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

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

N = 225

Source: Research Findings

4.6 Bivariate Regression Analysis

Regression analysis was applied to test the model and hence establish the relationship between the respondent variable (loan accessibility by small and micro enterprises in Gitaru Division) and the predictor variables (interest rates and deposit rate).

With an intensity of 0.773185, the two explanatory variables have an association with loan accessibility (this represents the correlation coefficient between the combined independent variables and the dependent variable) as indicated by the value of Multiple R in Table 4.5. The two independent variables combined can explain a significant portion of the changes in loan accessibility by small and medium enterprises, as shown by the adjusted R² value of 51.86%.

Table 4.5: Summary Output

Regression Statistics	
Multiple R	0.773185
R Square	0.597815
Adjusted R Square	0.518633
Standard Error	0.504427
Observations	33

Source: Research Findings

Results in Table 4.6 show that the model is statistically significant as indicated by the F-value of 10.584, which is above the threshold F-value of 2.5, thus indicating a good model fit in the regression equation. Further, the model reliability is 95.63% as indicated by Significance F.

Table 4.6: ANOVA

	Df	SS	MS	F	Significance F
Regression	2	637.959	318.9795	10.584	0.0437
Residual	29	874.002	30.1380		
Total	32	1511.961			

Source: Research Findings

Using the values of the coefficients from the regression coefficient table (Table 4.7), the regression equation is;

$$AC = 0.4904 - 0.3146 I(r) + 0.2049 DR; \text{ measured without error.}$$

If one of the two explanatory variables was to be used to determine loan accessibility in Gitaru Division, it would be the level of interest rates as it had the least standard error. Other than the intercept, the other two variables were individually statistically significant based on the t-stat values that were more than /1.96/. Finally, as indicated by the p-value, the two explanatory variables were individually statistically significant at 95%

confidence level since their p-values were all less than 0.05. However, the intercept was not statistically significant as the p-value was more than 0.05 at 95% confidence level.

Table 4.7: Coefficients

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.4904	0.3165	1.5494	0.249
Interest Rates	-0.3146	0.0814	-3.8649	0.003
Deposit Rate	0.2049	0.0913	2.2442	0.012

Source: Research Findings

4.7 Interpretation of Findings

The correlation analysis revealed that there was a negative associations between interest rate and loan accessibility showing that a change in interest rate results in a change in the opposite direction in loan accessibility by the residents of Gitaru area. It should, however, be noted that correlation (association between any two sets of variables) does not imply causation.

The bivariate regression analysis assumed that the control variable (deposit rate) was an independent variable determining the level of loan accessibility in the targeted geographical area. Without error, 51.86% of the changes in loan accessibility in Gitaru can be explained by the interest rates and the deposit rate. This means that there is a significant portion of loan accessibility, on top of other factors covered in the study, can be determined by interest rates and deposit rates to a financial institution.

The model used in the study fits well into the data as was indicated by an F-value with a goodness of fit of 10.584; and a model reliability level of 95.63%, showing a very high level of the model use in predicting loan accessibility. Individually, the two explanatory variables were significant, with interest rates explaining 31.46% of the changes in the loan accessibility while 20.49% of the changes were explained by deposit rate, at 95% confidence level.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents a summary of the findings, conclusions and recommendations based on the study findings. It also presents suggested areas for further research.

5.2 Summary

The study achieved a significant response rate of 58.59%. Of all the respondents, 54.67% were males with a combined 87.565 of the respondents being less than 45 years. Degree, diploma and certificate holders accounted for 64.88% of the respondents. A combined 82.67% of the respondents had stayed in Gitaru for a maximum of ten years.

Only 43.55% of the respondents within Gitaru area had applied for a loan in the past 10 years, with the overall average interest rate on loans being 16.16% with a spread of 3.07%. The rates of bank interest rates varied from a low of 10% and a high of 34%, with 34% being seen as an outlier as the difference between it and the next interest rate was 9.5 percentage points. The biggest influence of loan accessibility was timing (time period given the levels of inflation), levels of interest rates and availability of collateral among others, which guided respondents on the decision on whether to take up loan facilities or not.

The majority of the respondents in Gitaru area have a bank account with a financial institution in the area. Of the 83.11% of respondents with bank accounts, a combined 70.22% of them deposited a maximum of Ksh. 40,000 a month, with another 13.78% depositing more than Ksh. 40,000, with the maximum deposit identified monthly being Ksh. 1.5 million. The average monthly gross income for the respondents was less than Ksh. 50,000 with the majority of the respondents having less than this amount monthly, thus inhibit their accessibility to bank loans given the high operating costs.

The correlation results showed there was a significant negative average association between the loan accessibility and interest rates ($r=-0.418$, $P\text{-Value}<0.05$); and a significant positive weak association between deposit rate and loan accessibility by small

and micro-enterprises ($r=-0.302$, P-Value < 0.01). Interest rates and deposit rates combined can explain 51.86% of the changes in accessibility to loans in Gitaru Division. There was a good model fit for the regression model with an F-value of 10.584, and a model reliability of 95.63%.

5.3 Conclusion

The study concludes that loan accessibility in Gitaru area by small and micro enterprises is highly dependent on the level of interest rates that are charged by the banks, with a negative relationship between the two. As the levels of interest rates increase, the level of loan accessibility by this target group decreases, and vice versa. This in turn inhibits growth of these enterprises as growth and expansion without financing is not very possible. The enterprises perpetually remain subsistent. Other small and medium enterprises do not make it for long as they fall by the way side, given the high failure rate of businesses in this category.

Financial institutions are working hard to make their presence felt in the rural areas as was evidenced by the high rate of ownership of bank accounts by respondents in the area. This has not, however, increase the levels of loan accessibility as the bank terms remain prohibitive to local businesses, most of which can be categorized as small and micro enterprises.

5.4 Recommendations for Policy

The access to finance is indispensable for the efficient allocation of capital and enterprise development. When compared to medium and large enterprises, small and micro enterprises face many difficulties when pursuing to procure financial resources. Such difficulties are due to an unstable and inadequate legislative framework, incomplete information, and even lack of information from capital providers, with a lack of credit history and insufficient guarantees for creditors further limiting this capacity. Banks in Kenya need to establish cheaper loans to fit into the needs of the small and micro enterprises, through the setting up of partnerships and joint ventures with the local communities, and businesses.

The central government will also have to participate in the empowerment of small and micro-businesses through the provision of education and offering cheaper financing to these businesses. The local businesses on their part need to plan their finances better to equip them with better business management skills and financial management capability to enhance their cash flow capability, which will lead to more certain cash flows and lower the interest rates offered by banks eventually.

5.5 Limitations of the Study

The researcher was faced with a number of challenges key among them, a less than 100% response rate. This did not, however, affect the study outcome significantly as a response rate of at least 20% is significant and can help draw conclusions. The other limitation is that the results might be unique to only one particular group of people (micro and small enterprises) and cannot be generalized to all groupings of businessmen without localizing the findings. Finally, some of the respondents gave wrong answers or misleading information (like indicating that they do not have a bank account and yet indicate that they made a monthly deposit). Since these cases were limited, the researcher ignored these answers and indicated a no response to the questions, which did not significantly affect the outcome of the study.

5.7 Suggestions for Further Research

The level of interest rates explained only 51% of the loan accessibility in Gitaru Division; other factors other than the variables covered in the study influence and contribute the remaining 49% of the loan accessibility. These factors include among others; size of the business, collateral, predictability of cash flows, among others. A study looking at these other factors and how they influence loan accessibility by small and micro enterprises could be studied. The research was based on small and micro enterprise. A similar study looking at medium and large enterprises (including corporations and MNEs) could be carried out as well.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION AND CONSENT

FRANCIS G. MATHEA

P.O BOX 234,

NAKURU

Dear Sir/Madam,

I am a postgraduate student at the University of Nairobi

As part of my course work I am conducting a research study on “**the effects of interest rates on the accessibility to credit by small and medium enterprises in Gitaru Division**” I am therefore seeking for assistance in collecting the necessary information by filling in the questionnaire attached herein. This will only take about 10-15 minutes. Kindly note that the information being sought is purely for academic proposes and will be treated with outmost confidentiality.

Your participation in the study will be highly appreciated.

Yours faithfully

FRANCIS G. MATHEA

MBA Student,

University of Nairobi

APPENDIX II: QUESTIONNAIRE

You are invited to participate in this research that seeks to find out the effects of interest rate on accessibility to credit by small and medium scale enterprises in Gitaru Division, Kenya. The outcome of this research is purely for the purpose of fulfilling academic requirement. All information submitted will be treated with utmost confidentiality. At no time will your name appear in any reported findings along with your responses. Feel free to express yourself as honestly as possible. Thank you for your cooperation.

Instructions

- a) Please do not write your name on the questionnaire.
- b) The information you will give will be treated with confidentiality.
- c) Indicate your choice by a tick (✓)
- d) Kindly answer all questions.

SECTION A: DEMOGRAPHIC DATA

1. Your gender

Male [] Female []

2. What is your age bracket?

25 – 34 Years []

35 – 44 Year []

45 – 54 Years []

55 Years and above []

3. Highest level of academic qualifications

Degree []

Diploma []

Certificate []

Form four { }

Other (Specify)

How long have you lived in Gitaru?

1-5 year []

6-10 years []

11-15 years []

Above 15 years []

UPTAKE AND INTEREST RATES

4. Have you in the last ten years or taken any loan or loans in a financial institutions

YES []

NO []

5. In each of the loan how much was it and what interest was charged

Amounts	interest %
.....
.....
.....
.....

6. If no what has hindered you from taking any loan from financial institution

.....
.....

FINANCIAL INSTITUTIONS

1. Do you have a bank account?

YES []

NO []

2. On average how much do you deposit in a month?

6000-10000 []

11,000-40,000 []

41,000-100,000 []

Over 100,000 []

3. What is your gross income in a month Kshs.....