EFFECT OF INFORMATION ASYMMETRY ON COST OF BORROWING AMONG MICRO-FINANCE CLIENTS IN KENYA

By

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DECLARATION

I declare that this dissertation in my original work and not been previously published or submitted elsewhere for award of a degree. I also declare that this dissertation contains no material written or published by other people except where due reference is made and author duly acknowledged.

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OPERATIONAL DEFINITION OF TERMS

Borrower proximity: the physical distance between the borrower and the microfinance institution (Agarwal, Chomsisengphet and Souleles, 2009)

Credit rationing: a situation in which lenders are unwilling to advance additional funds to borrowers at the prevailing market interest rate (Amir, 2007)

Collateral: is a property or other asset that a borrower offers as a way for a lender to secure the loan ((Leinter, 2006)

Cost of borrowing: interest and other costs incurred by an enterprise/individual in relation to the borrowing of funds (Pandey, 2005)

Debt maturity: is the date on which the life of a transaction or financial instrument ends, after which it must either be renewed or it will cease to exist (Moerman, 2010).

Information asymmetry: A situation in which one party in a transaction has more or superior information compared to another (Muli, 2013).

Interest rate: is the amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets (loan) (Leitner, 2006)

Microfinance institutions: A financial institution specializing in banking services for low-income groups or individuals (Darko, 2013).

Soft information: information about things that is difficult to measure such as people's opinions or feelings (Campbell and Loumioto, 2013)

ABBREVIATIONS AND ACRONYMS

MFIs Microfinance Institutions

MLBs Medium and large businesses

MSBs Micro and small businesses

CRBs Credit reference bureaus

KCB Kenya Commercial Bank

NGO Non-Governmental Organization

AMFI Association of Microfinance Institutions

IMF International Monetary Fund

SMEs Small and Medium Enterprises

GDP Gross Domestic Product

ABSTRACT

Money and credit are the lifeblood of an economy. The ability of borrowers to access credit at reasonable terms is critical to facilitate investment and commerce, and thereby sustain economic growth. The poor still find it difficult to access finances from MFIs because of the fairly high cost of loans. Most microfinance clients are information opaque and this partly explains the high risk premium attached to lending hence higher interest rates. Accordingly, the purpose of this study was to find out the effect of information asymmetry on the cost of borrowing among microfinance clients. Specifically, the study sought to find out: effect of credit history on the cost of borrowing; effect of soft information on the cost of borrowing; and, effect of borrower proximity on the cost of borrowing. The study employed a descriptive survey design. This research relied purely on primary data which was collected using a structured questionnaire. Both descriptive and inferential statistics were used for data analysis. A multiple regression model was used to estimate the relationship between information asymmetry and cost of borrowing. The study findings show that borrower credit history and soft information are significant influencers of borrowing cost among microfinance borrowers in Kenya. Favourable borrower credit history and soft information have a favourable effect of reducing the borrower cost of borrowing among microfinance borrowers in Kenya. However, the study also concludes that in the Kenyan context borrower proximity has no effect on the cost of borrowing among microfinance borrowers in Kenya. This implies that microfinance institutions in Kenya do not take into account the physical distance of the borrower from the MFI when evaluating a loan application. The study recommends that microfinance institutions in Kenya should leverage borrower credit history and soft information to mitigate information asymmetry challenges. This practice will also be beneficial to the borrowers who possess good credit history standing and positive soft information. By extension this will make the bottom of the society (microfinance clients) to access credit at favourable terms. In turn, this will have a positive impact on the economy by mainstreaming the poor into economic participation through affordable credit which can be used to finance business operations sustainably.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The role of information asymmetry in debt contracting has long been of interest to researchers in accounting and finance. Information acquisition by financial intermediaries is an essential function. It can improve the allocation of credit in the economy, and it is one of the main sources of bank profits. Better knowledge of their loan applicants allows banks to weed out low-quality projects.

The concept of asymmetric information was first introduced by Akerlof (1970) in a paper entitled *The Market for "lemons".* In the paper, Akerlof (1970) developed asymmetric information with the example case of automobile market. His basic argument was that in many markets the buyer uses some market statistic to measure the value of a class of goods. Thus the buyer sees the average of the whole market while the seller has more intimate knowledge of a specific item. Akerlof (1970) argued that this information asymmetry gives the seller an incentive to sell goods of less than the average market quality.

In credit markets, asymmetric information problems arise when borrowers have private information about their creditworthiness that is not observable by lenders. In general, the price of a loan is based on the lender's cost plus a risk premium. The cost of funds is often linked to a short-term market rate, which represents a common benchmark for all borrowers regardless of their credit history. Lenders will often charge an additional risk premium over the market rate as compensation for bearing the risk of slow, partial, or fully delinquent loan repayments. Some losses are expected in any risk group of loans and are in effect, paid for by the risk premium. The size of this premium depends on the lender's ability to properly assess the creditworthiness of the borrower. As a result, differences across borrowers in the final interest rate charged are based upon largely the lender's perceived repayment risk (Leitner, 2006).

When lenders lack the necessary information to distinguish between good and bad borrowers, it is said that there exist "adverse selection" and "moral hazard" problems in the market for credit. Adverse selection occurs when a borrower's private information about their own credit risk

adversely affects uninformed lenders. For instance, with limited credit information, there are likely to be more bad borrowers taking loans at any given interest rate. Moral hazard entails hidden information following the extension of a loan to a borrower. For instance, if a borrower knows that a lender cannot monitor repayment behaviour, this can induce the borrower to make a material change in income or spending that affects their ability to repay the loan (Jappelli and Pagano, 2002).

Several studies have been conducted across the world on the subject of information asymmetry and borrowing. For instance in Portugal, Bonfim, Dai and Franco (2009) provided evidence on the effect of bank competition on the cost of lending, in an environment of reduced information asymmetries between firms and banks. The authors constructed a simple model linking the number of bank relationships, the cost of lending and bank competition. Banks are exposed to more competition if the firm has many ongoing bank relationships that improve her threat point when negotiating borrowing costs. Moreover, increased competition in the banking sector might mitigate (substitute) or amplify (complement) this effect. Using a unique data set from Portugal, they find that when a firm borrows from one additional bank, the interest rate on bank loans for this firm becomes 9 to 20 basis points lower on average. In addition, it is found that when local bank competition is more intense firms can benefit more from simultaneously engaging in several banking relationships, hence providing evidence of complementarity between competition and the number of bank relationships. However, these effects are not observed for the smallest and youngest firms.

Using panel data Taiwan and Huang (2014) examined the impact of information asymmetry and client credit on lending performance. The empirical results showed that: First, MLBs with good information transparency tend to establish relationships with banks that are characterized by huge losses from bad debts and from credit card lending. Second, Small foreign firms, as well as MLBs with high profitability, cash and R and D expenditure ratios prefer having relationships with banks with good lending performance and low credit risk. Third, MLBs and MSBs with poor credit records prefer having relationships with banks that have good lending performance and low credit risk.

Bolton, Freixas, Gambacorta and Mistrulli (2013), studied how relationship lending and transaction lending vary over the business cycle. They were able to study how relationship and

transaction-banks responded to the crisis and tested existing theories of relationship banking. The empirical results established that relationship banks charged a higher spread before the crisis, offered more favourable continuation-lending terms in response to the crisis, and suffered fewer defaults, thus confirming the informational advantage of relationship banking.

In Kenya, Gaitho (2013) explored the effect of credit reference bureaus (CRBs) on credit access. The study found out that CRB reduces borrowing cost and loan delinquencies to a moderate extent. It further established that CRB has enhanced effective risk identification/monitoring and microcredit extension in Kenya. It was therefore recommended that lenders and CRB should work closely to ensure that there is no information asymmetry and therefore ensure that credit flows to deserving borrowers.

In another Kenyan study, Kwambai and Wandera (2013) sought to find out the effects of credit information sharing on nonperforming loans in KCB Kenya and specifically to establish the trend of bad loans before and after the introduction of CRB, to identify the factors that account for bad loans and to determine the economic sector that records higher bad loans and the efforts taken to reduce the risk in this sector. The study concluded that credit information sharing and level of nonperforming loans are indeed related. Credit Information Sharing, increases transparency among financial institutions, helps the banks lend prudently, lowers the risk level to the banks, acts as a borrowers discipline against defaulting and it also reduces the borrowing cost, that is, interest charged on loans.

1.1.1 Concept of Information Asymmetry

According to Akerlof (1970) information asymmetry is a situation whereby the buyer in a market sees the average of the whole market as the basis of evaluating quality of a product while on the other hand the seller has more intimate knowledge of a specific item. Therefore, the seller is at an advantageous position because he/she has superior information concerning quality of the product as compared to the buyer. This skewed possession of information is referred to as information asymmetry. According to Leitner (2006) asymmetric information is a situation whereby borrowers have private information about their creditworthiness that is not observable by lenders. Jappelli and Pagano (2002) wrote that when lenders lack the necessary information to distinguish between good and bad borrowers, it is said that there exist “adverse selection” and

"moral hazard" problems in the market for credit. For the purpose of this study the Leitner (2006) definition shall be adopted.

Information asymmetry can be measured using different parameters; Credit history, soft information and borrower proximity. Borrower credit history is typically compiled by credit reference bureaus. The purpose of the bureau is to collect, collate, analyze, and disseminate credit information among credit providers. Credit information sharing provides credit history (information capital) as an alternative form of collateral to the traditional physical collateral, to secure credit facilities from banks. On the other hand, the bank benefits from the mechanism, since it will address the problem of information asymmetry that is typically used to raise a risk premium on loans. The problems of moral hazard and adverse selection are also minimized. Credit histories not only provide necessary input for credit underwriting, but also allow borrowers to take their credit history from one financial institution to another, thereby making lending markets more competitive and, in the end, more affordable (Muli, 2013).

An evaluation of soft information could also reduce information asymmetry. Typically, soft information is not directly verifiable by a third party and includes hypothetical and/or intangible information such as economic projections, assessments of a firm's management quality, and employee morale. Soft information is typically thought to be accessible exclusively to a primary incumbent. Therefore, this information is only accessible in the context of relationship banking (Campbell and Loumioto, 2013). Soft information can be interpreted as a private signal about the quality of a firm that is observable to a relationship bank, but not to a transaction bank**.** Previous research in relationship banking generally suggests that soft information can improve contracting efficiency and affect a firm's costs and/or its access to credit. Relationship lending primarily as a practice can be able to alleviate information asymmetry. It lowers information asymmetries and monitoring costs, in a competitive loan market, banks transfer monitoring cost savings to their clients in terms of lower interest rates. In particular, it is expected that reduced information asymmetries through inside information collected during face-to-face meetings are passed on to the borrower by means of a lower interest rate (Salvatore, Capasso and Gabriele, 2015).

Borrower proximity plays a role in determining the level of information asymmetry. According to Agarwal, Chomsisengphet and Souleles (2009) distance erodes lender's ability to collect proprietary intelligence and to carve out local captive markets suggesting that the requisite soft

information is primarily local. Borrower proximity facilitates the collection of soft information, thereby enhancing its quality, which is consistent with the notion that banks enjoy a local informational advantage that distance erodes. Proximity facilitates the collection of soft information, leading to a trade-off in the availability and pricing of credit, which is more readily accessible to nearby firms albeit at higher interest rates ceteris paribus.

From the foregoing, for the purposes of this study, information asymmetry shall be measured using three indicators of credit history (Muli, 2013; Jonathan and Jonathan, 2001; Howorth and Moro, 2012); soft information (Campbell and Loumioto, 2013; Wanzare, 2010; Sseggujja, 2010) and borrower proximity (Agarwal, Chomsisengphet and Souleles, 2009; Dass and Mass, 2009).

Microfinance refers to small-scale financial services, primarily credit, savings and insurance. Microfinance offers poor people and micro enterprises access to basic financial services such as loans and savings. The information asymmetry is most pronounced in this borrower segment because of lack of guarantees, lack of information (short credit history) and difficulty in monitoring. In addition, these micro enterprises frequently do not possess legal documentation, properties, or regularized wages, which are demanded by traditional banking institutions (Hercules, 2006). Therefore, it would be correct to say that the bulk of microfinance clients are information opaque.

The microfinance institutions have taken different measures to mitigate the information asymmetry problem which is uniquely more pronounced among their clients. One of the key innovations towards this end is group based lending. Group-based lending, as the term already indicates, requires individuals to organize themselves into groups in order to gain access to financial services from a MFI. Normally, group-based lending works as follows. Loans are made to individuals, but all members of the group are held responsible for the loan repayment (joint liability principle). In some programs loans are given strictly for a certain period of time (usually a year), while in other programs the members are allowed to decide the loan terms themselves. Repayments are made on a weekly or monthly basis; this is done at group meetings or directly to the branches of the microfinance institution. Thus, in group-lending programs the functions of screening, monitoring and enforcing repayments is to a large extent transferred from the bank agent to group members. Peer pressure is a mechanism group members can use in the process of mitigating moral hazard and enforcing punctual repayment. In order to secure future access,

members are obliged to monitor each other. Once output is realized and a member proves unwilling to repay, other members can use peer pressure and social sanctions to make him repay (Mehrteab, 2005)

Leveraging customer credit history information has also been used by MFIs to mitigate losses occasioned by information asymmetry challenges. Various theories have explored how sharing credit information can alleviate moral hazard, adverse selection and over-borrowing. Sharing this information helps lenders avoid low-quality borrowers and in turn incentivizes borrowers to stay off the blacklist. When lenders share positive information borrowers can gradually build up a valuable reputation as trustworthy borrowers (Jaap, Ralph & Matteo, 2015). If a potential client has had a bad credit record in the past, it is right for a bank to deal with such a case in a prudent manner. While some banks may abandon this type of business to avoid a high non-performing loan ration, other banks are attracted by a high loan spread, all of which depends on the banks credit policy.

Additionally, Emilio, Galariotis, Villa & Yusupov (2011) opine that the problem of information asymmetry among the low income borrowers and micro enterprises could be solved through collateral requirement. A major part of the informational problem could be avoided in theory, through the requirement of tangible collateral prior to lending such as furniture, livestock, and personal effects.

1.1.2 Cost of Borrowing

In the strict sense of finance, cost of borrowing is that amount which is paid to the providers of capital. It either appears as a charge against the business to arrive at the profits for instance interest on debentures or it appears as form distribution of the profits e.g. dividends on preference shares and ordinary shares. The interest and the dividends both represent the cost of obtaining and using capital (Pandey, 2005).

In this study, the cost of borrowing would be defined more broadly using the parameters discussed below; higher interest (Bonfim, Dai and Franco, 2009), collateral requirement (Leinter, 2006; Stiglitz and Weiss 1981), shorter debt maturity (Moerman, 2010) and credit rationing (Amir, 2007). Interest charged on borrowed funds is the most visible element in the cost of borrowing. Bonfim, Dai and Franco (2009) wrote that the impact of information asymmetry on

the cost of debt capital is that it influences the interest rate charged on the borrower. A higher bid-ask spread will apply to the borrowers the lender does not know much about. While on the other hand, borrowers with good credit history would enjoy lower interest rates. Information asymmetry is priced in terms of interest rate.

Collateral is an important element in the cost of borrowing. Most lenders normally demand for collateral in order to mitigate against information asymmetry challenges. Generally, the term collateral refers to assets pledged by a borrower to secure a loan. The lender can seize these assets if the borrower does not make the agreed-upon payments on the loan, so the lender has some protection if the borrower defaults. Therefore, the use of collateral can make it easier for borrowers to obtain loans to finance their investments (Leinter, 2006). Collateral is a mechanism that mitigates adverse selection, credit rationing, and other inefficiencies that arise when borrowers have *ex ante* private information. Stiglitz and Weiss (1981) explains collateral as arising from *ex ante* information gaps between borrowers and lenders. Specifically, when borrowers have private information regarding their project quality, the equilibrium may be characterized by adverse selection and credit rationing. The pledging of collateral may allow lenders to sort observationally equivalent loan applicants and mitigate these inefficiencies.

Debt maturity is also determined by information asymmetry. Moerman (2010) found out that information asymmetry decreases debt maturity. Furthermore, it was established that a higher bid-ask spread on the borrower's traded loans translates into a shorter maturity of the borrower's subsequently issued loans. Therefore, borrowers with good credit history will be allowed longer repayment period as compared to information opaque borrowers.

Credit rationing is another measure used by lenders to mitigate information asymmetry challenges. Broadly speaking, 'credit rationing' refers to any situation in which lenders are unwilling to advance additional funds to a borrower even at a higher interest rate. It is a situation in which the demand for commercial loans exceeds the supply of these loans at the commercial loan rate quoted by the banks. The lender would deny credit to potential information opaque borrowers in favour of familiar borrowers (Amir, 2007).

There are various ways to mitigate information asymmetry problems in the market for credit. These measures either directly or indirectly constitute a cost to the borrower. For example,

collateral can be required for a loan; the lender can add risk premium on the lending rates; the lender can ration credit when there is insufficient information about the borrower; and the lender can demand shorter repayment period. In this study these four will be used as the measures of the cost of borrowing.

1.1.3 Microfinance Institutions in Kenya

The microfinance sector in Kenya is fairly well developed by the Sub-Saharan Africa standards. It constitutes of a variety of organisations whose objective is to reach the bottom of the society with varied financial products. The Microfinance Act was formulated in the year 2006 to specifically regulate this sector. Previously there was no piece of regulation relevant to this sector. This led to a proliferation of a multiplicity of institutions and products aimed at this hitherto unbanked market segment. The microfinance sector in Kenya has largely developed under this scenario (Darko, 2013)

K-rep was the pioneer microfinance institution in Kenya. It was established in the year 1984 as a non-governmental organization (NGO) before evolving into a microfinance institution (MFI). The conversion from NGO into MFI was motivated by the need to enhance capacity to mobilise savings from the public for onward lending. The records kept by the Association of Microfinance Institutions (AMFI) indicate that today we have 49 registered MFIs in Kenya. The full list is captured in Appendix 1

1.2 Statement of Research Problem

According to Sabana (2003) microfinance is very critical in any economy because it helps in mainstreaming the poor into economic participation through provision of credit and other financial services. However, the poor still find it difficult to access finances from MFIs because of the fairly high cost of loans. Most microfinance clients are information opaque and this partly explains the high risk premium attached to lending hence higher interest rates (Thomas and Worrall, 2000).

The provision of microcredits to poor people has been shown to help people work their own way out of poverty. In fact, Microcredits have become a prime component of development strategy worldwide, and the UN nominated year 2005 to be the year of microcredit. However, there are

many factors to be considered in order to develop a sustainable microcredit program reaching poor. Despite being hailed as the refuge for the poor, MFIs have been accused of levying higher interest rates as compared to the mainstream commercial banks besides demanding collateral and shorter maturity periods. The high interest rates could be motivated by the fact that there are high cost associated with screening the information opaque loan applicants and enforcing repayment (Bellucci, Borisov & Zazzaro, 2013).

Therefore, it is critical that a study be carried out to identify and measure the entire borrowing cost imposed by the MFIs on the poor borrowers and micro enterprises. In order to operate their businesses sustainably, the borrowing cost must be reasonably affordable. The study will offer insights and recommendations on how MFIs could lower the borrowing cost in the face of information asymmetry. No previous studies have attempted to measure the entirety of this cost and offer suggestions for a reduction.

Studies across the world have been undertaken to evaluate the effect of information asymmetry on the cost of borrowing. Moerman (2010) evaluated the impact of information asymmetry on debt pricing (interest rate) and maturity. This study relied on only a single measure of information asymmetry namely credit history; Bonfim, Dai and Franco (2009) investigated the impact of information asymmetry on the cost of debt capital (interest rate). In this study the author relied on only one measure of borrowing cost namely interest rates; Leinter (2006) evaluated the influence of information asymmetry on collateral requirements. The researcher measured the cost of borrowing using collateral requirement only; Amir (2007) analyzed the effect of information asymmetry on credit rationing. In this study the cost of borrowing was measured using only one indicator – credit ration; In Kenyan Kwambai and Wandera (2013) sought to find out the effects of credit information sharing on nonperforming loans in KCB Kenya. The study evaluated the cost of information asymmetry to the lender as opposed to the borrowers; in another study Gaitho (2013) explored the effect of credit reference bureaus (CRBs) on credit access in Kenya. In this study information asymmetry was purely measured using credit history.

All the different measures aimed at protecting the lender against information asymmetry namely higher interest, collateral requirement, shorter debt maturity and credit rationing constitute a cost to the borrower. No empirical study has tried to comprehensively measure the cost of

information asymmetry to the borrowers of funds. Most studies done previously have only focused on the cost the borrower suffers as a result of a risk premium being added on the interest rate charged (hence the borrower being charged a higher interest rate). This study intended to broadly capture all indicators of cost to the borrower including: requirement for collateral, shorter debt maturity, credit rationing, and higher interest rate. The study sought to answer the question: what is the effect of information asymmetry on the cost of borrowing among microfinance clients?

1.3 Research Objectives

The broad objective of this study was to find out the effect of information asymmetry on the cost of borrowing among microfinance clients in Kenya. Specifically, the study sought to find out:

i. The effect of credit history on the cost of borrowing among microfinance clients

ii. The effect of soft information on the cost of borrowing among microfinance clients

iii. The effect of borrower-lender geographical proximity on the cost of borrowing among microfinance clients

1.4 Research Hypotheses

H_{01}: Credit history has no significant effect on the cost of borrowing among microfinance clients

H_{02}: Soft information has no significant effect on the cost of borrowing among microfinance clients

H_{03}: Borrower-lender geographical proximity has no significant effect on the cost of borrowing among microfinance clients

1.5 Significance of the Study

Money and credit are the lifeblood of an economy. The ability of borrowers to access credit at reasonable terms is critical to facilitate investment and commerce, and thereby sustain economic growth. This study made an important contribution by comprehensively measuring the total cost

of borrowing occasioned by information asymmetry among microfinance borrowers. The study was unique because it dissected the cost of borrowing into its various constituents.

The results of this study have made an important contribution to the literature of information economics. The research analysed the different indicators of information asymmetry to demystify the concept. Previous studies have not attempted to operationalize clearly the measures of information asymmetry.

Finally, this study will be valuable to the future researchers on the subject of information asymmetry. The findings have added to the body of knowledge in the novel fields of information economics and microfinance. This has formed a foundation for further and future research on the subject.

1.6 Scope of the Study

This study sought to answer three questions: what is the effect of credit history on the cost of borrowing? What is the effect of soft information on the cost of borrowing? And, what is the effect of borrower proximity on the cost of borrowing? The study evaluated the effect of information asymmetry on MFI clients in Kenya. This was a cross-sectional study.

1.7 Delimitation of Study

Firstly, the study only assessed the micro-finance institution and clients within the Nairobi context. There might be some issues that uniquely affect the rural setting MFIs and clients. These aspects might be missed out in this study.

Secondly this study measures information asymmetry using only three indicators namely: credit history, soft information and borrower proximity. While cost of borrowing was measured using only four indicators namely: interest rates, collateral requirement, credit rationing and debt maturity. These two variables could be measured in a broader manner.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a theoretical review of the relevant theories. In addition, an analytical and critical review of past researches related to this study is given. The knowledge gaps in these studies are highlighted. The literature review culminates into formulation of a theoretical framework that is also presented.

2.2 Theoretical Review

There are many theories of interest rate and borrowing cost determination but the selected theories bear the greatest relevance to this study are: information asymmetry theory (Akerlof, 1970), loanable funds theory (Wicksell, 1898) and loan pricing theory (Stiglitz and Weiss, 1981). A discussion of these theories follows.

2.2.1 The Information Asymmetry theory

This theory is associated with Akerlof (1970) who developed a "lemon's" model. The model is founded on the assumption that, in some given markets, sellers will tend to sell poor quality goods, because the advantages accruing from the sale of quality goods will be enjoyed by all the sellers in the market rather than only those offering quality goods. This will eventually lead to predominance of poor quality goods in the market as majority of the sellers will have no motivation to sell quality goods. This might in turn lead to a market failure in which right quality goods will never be offered regardless of the price. Arkerlof used this theory to explain how car markets operate in the face of information asymmetry. He argued that in this market we have both new and used cars, good cars and lemons, and a new and used car can be either a good or a lemon. In both the new and used car markets, a buyer will not know the exact quality of the car he is purchasing.

The centrality of asymmetric information to the operations of markets has elicited several tests and improvements of the original Akerlof's lemons model. The literature in response attempts to describe the market situations where there is uncertainty due to lack of information and also suggests measures that can be employed to address information asymmetries. Akerlof also

articulated the implications of information asymmetry in the insurance market, in the scenario of minority employment recruitment, and credit markets in less developed countries. In credit markets, asymmetric information problems arise when borrowers have private information about their creditworthiness that is not observable by lenders.

Market failure may be avoided however, by certain countervailing institutions which, in essence, act as a minimal warrant of quality or value in situations where asymmetric information might potentially be present. Akerlof noted that one of the counteracting institutions in the credits markets is credit ratings and credit reporting. Credit reporting is usually done by credit reference bureaus which build information capital about a borrower's credit history. In general, the price of a loan is based on the lender's cost plus a risk premium. The cost of funds is often linked to a short-term market rate, which represents a common benchmark for all borrowers regardless of their credit history. Lenders will often charge an additional risk premium over the market rate as compensation for bearing the risk of slow, partial, or fully delinquent loan repayments. Therefore, borrowers who have never defaulted on their historical obligations can leverage on credit reporting to bargain for lower borrowing rates.

2.2.2 Loanable Funds Theory

According to Anderson (2005), the loanable-funds theory of interest, also known as the neo-classical theory of interest was expounded by a Swedish economist Knut Wicksell (1898). The loanable funds theory was an attempt to improve upon the classical theory of interest. It recognises that money can play a disturbing role in the saving and investment processes and thereby causes variations in the level of income. Thus, it is a monetary approach to the theory of interest, as distinguished from that of the classical economists.

The loanable funds theory states that the rate of interest is the price that equates the demand for and supply of loanable funds. Thus, fluctuations in the rate of interest arise from variations either in the demand for loans or in the supply of loans or credit funds available for lending. The supply of credit or funds available for lending would be influenced by the savings of the people and the additions to the money supply (usually through credit creation by banks) during that period. Thus, the supply of loanable funds is constituted by the savings, (S) Plus new money (new money supply resulting from credit creation by commercial banks), (M). Thus, S + M is the total

supply of loanable funds. The demand side of the loanable funds, on the other hand, would be determined by the demand for investment plus the demand for hoarding money. If the hoarded money increases, there would be a curtailment corresponding in the supply of funds. Similarly, an increase in dishoarding will lead to an increase in the supply of loanable funds. If the banks are in a hurry to lend money without establishing the credit worthiness of individuals, then the default rate increases and hence business risks makes banks to charge a higher premium to compensate for the default risk. This theory assumes that the cost of loan is purely determined by demand and supply of funds. It does not consider creditworthiness as a factor influencing loan cost. This study however shows that there are other important determinants of loan cost beyond just the supply and demand of funds.

2.2.3 Loan Pricing Theory

Banks cannot always set high interest rates in an attempt to earn maximum interest income. Banks should consider the problems of adverse selection and moral hazard since it is very difficult to forecast the borrower type at the start of the banking relationship (Stiglitz and Weiss, 1981). If banks set interest rates too high, they may induce adverse selection problems because high-risk borrowers are willing to accept these high rates. Once these borrowers receive the loans, they may develop moral hazard behaviour or so called borrower moral hazard since they are likely to take on highly risky projects or investments (Chodecai, 2004).

From the reasoning of Stiglitz and Weiss (1981), it is usual that in some cases we may find that the interest rate set by banks is not commensurate with the risk of borrowers. However, once the bank has established a relationship (relationship banking) with the borrower, in the subsequent borrowing an interest that is commensurate with the borrower credit risk will be levied. In other words, the bank's decision on whether to lend to a customer and at what rate will be largely dependent on information they have gathered from the customer as a result of previous interactions. Information can also be obtained from the applicant's customers and suppliers.

2.3 Empirical Review

In this section, previous related studies are evaluated. The discussion focuses on the study objectives, context, methodologies employed, and the findings. But most important the knowledge gaps in those studies are brought out.

2.3.1 Credit History and the Cost of Borrowing

Employing information asymmetry indicators based on the World Bank's Doing Business survey, Barbosa and Marcal (2011) investigated the role that information asymmetry plays in bank spreads. The dependent variable was a country's average bank spread, selected to measure the cost of bank loans in the credit market, independent variables included information rate, degree of coverage of the population of public credit bureaus and degree of coverage of the population of private credit bureaus. Control variables used included the country's tax burden, equity capital requirements, inflation, default level and quality of the legal system. The number of countries with prime rate data information recorded in the IMF and World Bank databases for the years under study defined the sample size. Based on a universe of 196 countries with a total of 980 notes, a sample was selected containing 14 countries with valid data, with recorded loan rates intended for a lower-risk public (prime rates) with 70 notes from 2002 to 2006. The results showed that the existence of a lesser degree of information asymmetry in credit markets reduces bank spreads. This conclusion was obtained based on a study of prime loan rates. The effect would be between a 2% to 4% permanent reduction in spreads. The relation was obtained based on econometric panel data models with static effects. This study only used one measure of borrowing cost – bank spreads (interest rates). The current study will measure cost of borrowing more broadly.

In Kenya, Ngugi (2001) sought to explain the factors determining interest rate spread for Kenya's banking sector. In the data it was assumed that interest rate depends on demand for investment funds and other composite variables including the alternative sources. The data consisted of monthly observations of Treasury bill rates, commercial bank loans and deposits, lending rates, inter-bank rates, provision for bad loans, and liquidity and cash ratios. These data were obtained from the Central Bank of Kenya. The sample ran from July 1991 to December 1999 for all data set except the inter-bank rate, which was only available from April 1993. A regression model was run to establish the relationships. The results indicated that banks factored information asymmetry risk in pricing the loans. To cover credit risk, banks charge a premium whose size depends on the bank credit policy. Customers with good credit history normally enjoy lower interest rates and vice versa. This study evaluated interest rate as the only indicator of borrowing cost.

In China, Huang *et al.* (2014) conducted a narrative literature review using financing theories of SMEs information asymmetry and credit rationing theories to analyze the financing difficulties for SMEs. The researchers concluded that information asymmetry leads to adverse selection and moral hazard and hence higher interest rates. This makes a large number of SMEs to have no access to loans since banks are reluctant to lend. There is increased transaction cost associated with information search in a situation of information asymmetry. Where credit history information is not available, the bank has to take efforts in terms of money and time to search for information which can reflect the real situation of the enterprise to ensure the safety and efficiency of loans and prevent borrower default. These information varying from financial statements, the credit rating level to quality of management, cash flow, business prospects, and so forth. However, information related to this is not easy to obtain in the credit market, because most of it is highly internalized and not accessible, which will drive up the cost of information searching. This cost is factored in determination of the interest rates.

Howorth and Moro (2012) examined whether lending manager's assessments of the trustworthiness of SME owner managers are associated with interest rate charged. Data were obtained from a survey of lending managers from small banks in North East Italy. The dependent variable was interest rates paid by each SME on their overdraft as reported by the bank lending manager. The independent variable was trust which was measured using the manager's ability to manage business, benevolence and integrity. Market power of the bank was used as a control variable. The data was collected on a random sample of customers, resulting in 365 small firms representing a 74% response rate. Multivariate regression analysis found evidence of a negative association between trustworthiness and interest rates. This study purely used interest rate as the cost of borrowing.

Jonathan and Jonathan (2001) examined the proposition that informal forms of finance might play a significant role in overcoming both information asymmetry and the finance gap. The aims of the research were achieved by means of a two-stage approach. Firstly, grounding interviews were conducted with providers and recipients of finance, as well as advisors and intermediaries in the small business finance market. Secondly, 1 000 small UK firms were surveyed to investigate the patterns in financing as well as difficulties encountered in the financing process. The exploratory nature of this initial research phase favored a methodological approach that was

inductive in nature. Consequently, a qualitative, interview-based approach was adopted. The study concluded that the loan provider can reduce credit risk by carefully screening firms at the outset and monitoring projects during the life of the loan. However, screening and monitoring are high cost activities associated with the lending proposition. If the lender is to recoup these costs then borrower interest rates may be increased, additional risk may be covered by demanding collateral or may be avoided altogether by rejecting the loan application. To summarize, the general problem of information asymmetry can manifest itself in one of three ways: acceptance of the loan application but at a higher than risk-adjusted interest rate; acceptance but with strict collateral requirements; or outright rejection of the loan application. The study identified the measures taken by lenders to resolve information asymmetry problems but did not measure the total cost occasioned by these measures to the borrower.

2.3.2 Soft Information and Cost of Borrowing

Campbell and Loumioto (2013) studied the portability of soft information in a decentralized financial institution. Using unique data on lending decisions made by employees in a highly decentralized financial services organization, the authors showed that a monitoring system which captures soft information for vertical communication (to superiors) purposes also facilitates the horizontal communication of soft information (across employees) for decision making purposes. The research site for the study was a federal credit-union with approximately $1.6 billion in assets and 140 000 customers, and 23 branches operating in a single state in the US. The primary data for the study came from the organizations internal lending, personnel, and customer records during the period 2008 – 2010. Throughout this period, this organization when compared to a peer group of same-state credit unions or to a national peer group of similar size, has consistently ranked in the top 15% in productivity, loan default rates (2^{nd} lowest), and overall performance (return –on- assets). The study employed an OLS model in the analysis. The results provide evidence that the "stock" of soft information accumulated in this system has persistent effects on the lending decisions of employees. Employees rely on this information to increase access to credit for borrowers, provide more favorable pricing terms, and reduce the ex post risk of their lending decisions.

Wanzare (2010) used US loan-level data set between 2000 - 2015 identified soft information and its impact on borrower default. Soft information was described as information that is hard to

express numerically and is only known by the lender exposed to it. The study analyzed the impact of soft information on the mortgage rate and its effect on borrower default. A regression model was used in the analysis. The study finds out that soft information is a positive and significant predictor of borrower default and that soft information gathered by lenders is an input into the pricing of the loan.

Aurizion, *et al.* (2012) studied how access to bank lending during financial crisis differed between family and non-family firms. The theoretical underpinning of the study was that the presence of a family block-holder in the company attenuates the agency conflict in the borrower-lender relation, because of higher non-monetary costs of default entailed in this type of corporate ownership structure. Because this information is to a large extent soft, the researchers further investigated the interaction between the family firm status and the screening technology adopted by the banks. The dependent variable was the difference in net interest rate charged and the time difference in the collateral-ratio before and after the crisis. Dummy variable distinguishing family and non-family firms was used as the independent variable. The study finds that family firms experienced a contraction in credit granted than non-family firms. The results are robust to ex-ante differences between the two types of firms and to bank-specific firms. Banks that increased the role of soft information in their lending practiced reallocated credited towards family firms.

In Uganda, Sseggujja (2010) investigated the relationship between relationship lending, transaction costs and lending interest rates. Relationship lending was measured using: multiple banking relationships, duration of the relationships, pre-existing relationship and trust. Primary data was collected from 14 commercial banks in Uganda and their borrowers. A sample of 225 was drawn from the population of 566 medium and large sized borrowing enterprises and bank employees of credit departments. Regression model was the tool of analysis. The study findings reveal that relationship lending has a significant negative effect on lending interest rates and transaction costs. Therefore, the study concludes that relationship lending and transaction costs have a role in commercial bank pricing and loan application acceptance decision making.

Relationship lending is theoretically expected to reduce asymmetric information, which potentially creates benefits for borrowers. However, empirical evidence is mixed. This motivated Kysucky and Norden (2013) to conduct a meta-analysis to summarize and explain the

heterogeneity in the results in the literature using hand-collected information from 101 studies in the U.S., Europe, Asia and Latin America from 1970-2010. The study finds that strong relationships are generally beneficial for borrowers but lending outcomes differ across the relationships' dimensions. Long-lasting, exclusive and synergy-creating bank relationships are associated with higher credit volume and lower loan rates. These benefits are more likely in the United States of America and in countries where bank competition is high. The higher the deposits to GDP ratio, the higher the importance of SMEs in an economy; suggesting that a higher prevalence if relationship lending does not necessarily come along with higher benefits for borrowers.

2.3.3 Borrower Proximity and Cost of Borrowing

Bellucci *et al.* (2013) explored the effects of bank-borrower physical proximity on price and non-price aspects of small business lending in local credit markets in Italy. The study used price and availability as the dependent variables. The independent variable was the distance between the bank and each borrower. The study also used a broad set of control variable reflecting borrower characteristics and the nature of bank-borrower interaction. Relationships were estimated using ordinary least squares method. The data used was collected over the period 2004 – 2006. Along the price dimension, the analysis revealed that interest rates increase with bank-borrower distance and decrease with the distance between bank and other competing banks. Along the quantity dimension, it was observed that more distant borrowers are more likely to experience binding credit limits. Results also showed that quantity effects of bank-borrower distance are concentrated among less transparent firms.

Commercial banks acquire inside information about the firms they led to. Dass and Mass (2009) studied the impact of this informational privilege position on the borrowing firm using a broad panel of U.S. firms over the 1993 – 2004 period. The strength of bank-firm relationship was measured by bank-firm proximity, size of the loan, and the lender's insider potential. Proximity was defined as the geographical proximity between the borrower and the lender, the significance of the loan to the borrowing firm's finances was measured using the loan-to-asset ratio, and the bank's insider potential was measured by the equity ownership of the bank in the borrowing firm. A cross-sectional econometric model was employed in the study. It was found out that simultaneously; proximity and loan significance should benefit the borrower's governance.

Proximity directly affects the bank's information-gathering and monitoring ability and hence the interest rates. The results showed that a stronger relationship, by inducing better monitoring, improves borrower's corporate governance. Simultaneously, it makes the bank a potentially more informed agent in the equity market. This information asymmetry increases adverse selection for the other market participants and lowers the firm's stock liquidity. This trade-off between improved corporate governance and greater information asymmetry affects the firm's value.

Ostromogolsky (2017) conducted a study on the relationship between the borrowing choices made by small businesses and their loan origination costs in the United States. The researcher made a comparison between firms that borrow from a previously unused financial institution with firms that borrow from a financial institution with which they have a pre-existing financial relationship. The study assessed the causal effect of borrowing from a new lender on small businesses' up-front closing costs. Loan origination cost was defined as the total dollar amount of fees paid by a borrower to apply for and obtain a loan at the time of origination. Simple cross sectional regression showed that small businesses that turn to new financial institution paid $5 650 to 6 740 more in closing costs than firms that return to a previously used institution. The study also studied a natural quasi-experiment wherein the treatment of borrowing from a new financial institution was close to was randomly assigned. A unique group of small firms businesses that selected a lender based on the lender's distance to the firm was considered. Data of firms that select a lender based on proximity revealed that borrowing from a new financial institution significantly raises a firm's loan origination costs.

2.4 Knowledge Gap

An evaluation of the previous studies shows that they made a good attempt at explaining the relationship between information asymmetry and borrowing cost. However, there exists a contextual gap in the sense that there seems no study evaluated the effect of information asymmetry on borrowing cost among MFI clients in Kenya. Most of MFI clients are generally information opaque because they do not have prior borrowing record besides not keeping business records. In addition, it should not be assumed that the results obtained in other contexts can be generalized into the Kenyan context. This is as evidenced by Kysucky and Norden (2013) who noted that the benefits of information availability in influencing lending cost are more

prominent in developed countries where bank competition is high as opposed to developing countries.

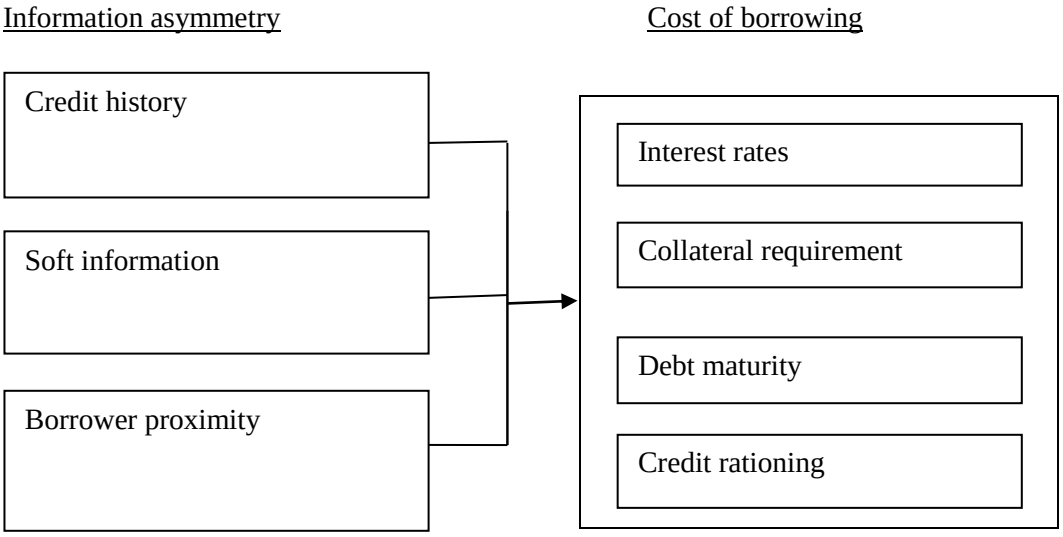
A critical look at the previous studies also shows that they did not comprehensively operationalize the study variables. For instance, most studies only used credit history as the only indicator of information asymmetry. Majority of studies also relied on a single measure of borrowing cost namely interest rates. This study measured the two variables in a broader sense. Information asymmetry was measured using: credit history, soft information and borrower-lender proximity. While borrowing cost was measured using: interest rates, collateral requirement, debt maturity and credit rationing.

2.5 Conceptual Framework

The conceptual framework in Fig 2.1 illustrates the relationship among study variables:

In this study, the dependent variable is cost of borrowing. This variable was measured using: interest rates, collateral requirement, debt maturity, and credit rationing. The independent variable in this study was information asymmetry. This variable was measured using: credit history, soft information, and borrower proximity.

Figure 2.1 Conceptual Framework



Source: Author (2017)

2.6 Operationalization of Variables

The following table shows how the study variables will be measured, measurement scale to be used and the corresponding questions in the questionnaire.

Table 2. 1 Operationalization of the study variables

Variable	Variable type	Indicators	Measurement scale	Question in questionnaire
Information asymmetry	Independent	• Credit history	Interval/Ordinal	Question 7
	Independent	• Soft information	Ordinal/Interval	Question 8
	Independent	• Borrower proximity	Ordinal/Interval	Question 9
Cost of borrowing	Dependent	• Interest rate • Collateral requirement • Credit rationing • Debt maturity	Ordinal/Interval	Question 10

Source: Author (2017)

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the research design to be employed in this study. In addition, the targeted population and sample size are determined. Furthermore, the data collection instruments are specified as well as how their validity and reliability will be assured. Finally, the data analysis techniques are elaborated.

3.2 Research Design

This study adopted a descriptive survey research design. A descriptive study is done so as to be able to give a rundown of the attributes of the study's variables and answer the research questions. According to Best and Khan (2009) a descriptive survey involves presentation of an issue highlighting its state, customs, opinions, operations, associations or directions. It involves collecting information about existing circumstances or situations with the objective of explanation and exposition. Aggarwal (2008) adds that this research method is not simply about assembling and arranging facts but involves proper examination, explanation, collation, determination of directions and associations.

Consistent with the foregoing explanation about the meaning of a descriptive survey design, the purpose of this study will be to analyse and identify relationships between information asymmetry and borrowing costs among microfinance clients in different MFIs. This justifies the choice of this design. A descriptive survey method was used to collect data from MFIs operators registered with the Association of Microfinance Institutions (AMFI) and subsequently analysed the same to make sense of relationships.

3.3 Target Population

This study sought to find out the effect of information asymmetry on the borrowing cost among MFIs borrowers. Therefore, the target population of this study was all the microfinance institutions operating in Kenya as captured in the Association of Microfinance Institutions (AMFI) data base. Currently (the year 2017) we have 49 MFIs that are registered with AMFI.

See appendix 1 for the sample frame. These will form the total population of this study. The unit of analysis was the individual microfinance institutions. One key informant respondent per MFI was targeted. The respondent was the MFI's credit manager. This was chosen as the respondent because s/he is in charge of appraising loan applicants and determining whether the application should be accepted or declined. The officer also determines the loan terms in relation to interest rate, collateral requirement and loan maturity.

3.4 Sample Size and Sampling Procedure

The sample size was determined using a mathematical model propounded by the Air University of USA (2002). The model is specified as follows:

$$n = \{NZ^2 \times 0.25\} / \{[d^2 \times (N-1)] + [Z^2 \times 0.25]\}$$

Where; n = sample size, N = sample frame, d = precision level, Z=number of standard deviation units corresponding to confidence level, 1 = mathematical constant.

According to the authors, this model is appropriate for determining sample size if you plan to report results in a variety of ways. Some formulas are relevant where the researcher wants to report results descriptively while other formulas are applicable where the reporting will be done using both descriptive and inferential statistics. In this study the results will be reported by use of both descriptive and inferential statistics, hence choice of the above model. The total population (N) is 49 and the researcher will wish for 95% confidence level and ± 5 percent precision level (d = 0.05, Z= 1.96). Accordingly, the sample size shall be:

$$N = \{49 \times 1.96^2 \times 0.25\} / \{[0.05^2 \times (49-1)] + [1.96^2 \times 0.25]\} = 43.56 \approx 44$$

This model has previously been applied in various studies to compute sample size, for instance; Muli (2011) and Gupta *et al*. (2005). The researcher adopted simple random sampling procedure to select the 44 sample from the population list focusing on only those MFIs that have branches within Nairobi County for the researcher's convenience in terms of time and financial constraints. Simple random sampling is appropriate if the elements constituting the population are similar. In this study there was no need to stratify the population constituent elements because the elements are considered uniform and hence the researcher intended to randomly select 44 MFIs from the total population.

3.5 Research Instrument

A five point structured likert scale questionnaire was used for the purposes of data collection. The point of scale indicates the degree of agreement level of the respondent to the statement indicating the effects of information asymmetry on the cost of borrowing. The questionnaire comprises questions related to credit history, soft information and borrower proximity, and how these affects borrowing cost (Appendix 3)

In addition, the questionnaire also has further questions that measures the following demographic aspects: age of the MFI, size of the MFI as measured using number of branches, type of the MFI – whether deposit taking or not, lending modality – whether individual or group lending, whether the MFI uses credit reference bureau services or not, and whether the MFI has a dedicated relationship banking section.

3.6 Validity and Reliability of the Instrument

Validity shows the extent to which a tool measures the construct being investigated (Gall. *et al*., 2003). The researcher will use intelligible language in constructing the data collection tools such that the questions are understandable and simple for the respondents to comprehend and offer appropriate responses. The researcher will ensure that the questions asked speak to the objectives of the study.

The questionnaire was pilot-tested to guarantee that the instruments ensure coherence and pertinence. This will involve administering the questionnaire in the filed on a sample of MFIs before the actual study. Any problems in the sample questionnaire will be identified and rectified before the actual study. The views of the respondents will be considered in improving the tool.

Reliability indicates the extent of internal consistency or dependability of a tool over time. It shows the exactness and meticulousness of the measurement technique (Kothari, 2004). In this study, the reliability of the questionnaire will be tested using the Cronbach alpha coefficient. According to Gliem and Gliem (2003) Cronbach alpha is the best measure of internal consistency of a measurement instrument. The cut-off point for making a conclusion about the reliability of a tool is the alpha coefficient should be ≥ 0.70.

3.7 Data Collection Procedure

This study collected quantitative data using a self-administered questionnaire. The researcher informed the respondents that the instruments being administered was for research purpose only and the responses from the respondents would be kept secret and confidential.

The researcher obtained an introductory letter from the University to collect data from the MFIs and with the help of research assistants deliver the questionnaires to the respondents and have them filled and then collect them later: the drop and pick later method.

3.8 Data Analysis

Descriptive and inferential statistics were used to analyze the sample data to explain and make abstractions of the population phenomenon. The collected data was checked for completeness, edited, coded and then entered into the computer. Descriptive statistics were used to summarize the data and establish characteristics of the study population. The tools of analysis used were frequency distributions and percentages. Mean was computed to show the average opinion consensus on every likert scale question asked, while standard deviation was calculated to show the extent of divergence in the opinion among the respondents.

To establish the effect of information asymmetry on the cost of borrowing, a multiple regression model was used. The variables are a mixture scale of ordinal and interval measurements. The model is specified as follows:

$CR= \beta_0 +\beta_1 CH+ \beta_2 SI + \beta_3 BP+\varepsilon$

Where:

CR= Dependent variable (Cost of borrowing)

β_0= constant term

$\beta_1, \beta_2, \beta_3$ and $\beta_4 > 0$ are regression coefficients

ε = Stochastic term.

CH = credit history

SI = soft information

BP = borrower proximity

The regression coefficients tested the unique effect of each independent variable. Significance of the regression coefficients was tested using the P values. The corresponding probability value (P value) for each coefficient was used to test the significance of regression coefficients at 5% significance level. P value measures the probability of committing type II error. It is the lowest significance level at which the null hypothesis can be rejected.

The ANOVA F statistic test was used to test whether the model as a whole is significant. In other words, do the independent variables, taken together, predict the dependent variable better than just predicting the mean of everything? R squared shall be used to test explanatory power of the model.

Regression diagnostics play a vital role in finding and validating a good predictive relationship between the dependent and independent variables. Since this is a cross sectional study only two diagnostic tests were performed namely normality test and multicollinearity test. Histograms and measures of skewness and kurtosis were used to measure normality of the data. Multicollinearity occurs when two or more predictors in the model are correlated and provide redundant information about the response. Pearson correlation was used to test the strength of correlation between the predictor variables. The rule of the thumb is that a correlation of more than 0.7 is an indication of severe multicollinearity (Shen and Gao, 2008). The solution for this problem is to drop the affected variable.

3.9 Ethics in Research

The key ethical consideration of the study was obtaining informed consent to carry out the study on the respondents. Other considerations for respondents were privacy and confidentiality which the researcher upheld during the study by ensuring that information given by the respondent was not be used in any manner that might be prejudicial. Before the administration of the questionnaires, the researcher obtained a letter authorising the study from KCA University.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents an analysis of the study data and offers a presentation and interpretation of the data. The data was collected using a questionnaire with five point likert scale. Data was cleaned, coded, and analyzed based on each independent variable using SPSS software.

4.2 Response Rate

The study targeted a sample size of 44 respondents from different microfinance institutions (MFIs). The questionnaire was supposed to be filled by the credit manager/officer from each MFI. In this study 32 dully filled questionnaires were received from the respondents. This represents 73% of the targeted sample size. The response rate conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 70% and over is acceptable.

4.3 Reliability of the Data

The quality of data is as good as the tool used to collect the data. To achieve reliability of the data, the researcher computed Cronbach's Alpha Coefficient. This statistic was used to ascertain internal consistency of the Likert scale questionnaire used in data collection. The general rule of thumb is that a coefficient of not less than 0.7 lends credence to the internal consistency of items used to measure the construct (Gliem & Gliem, 2003). From the analysis, a coefficient of 0.914 was obtained. The results are as captured in table 4.1 below.

Construct validity was demonstrated by high correlations between the items that comprised the constructs. This is a strong indication that the data collection tool used was reliable. Cronbach alpha is a reliability coefficient based on the average covariance among items in a scale. The average correlation of an item with all other items in the scale articulates the extent of the common entity.

Table 4. 1 Cronbach alpha coefficient

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.914	.919	15

4.4 Demographic Information

The demographic information of interest in this study was organization type, age of the MFI, number of branches, lending modalities, and the use of credit reference bureaus in credit policy. These demographics are discussed below:

4.4.1 Organization Type

The results of the study showed that 53 percent of the randomly sampled MFIs were non-deposit taking while 47 percent are microfinance banks (meaning that they are allowed to mobilize deposits from the public). Traditionally, MFIs in Kenya have not been allowed to mobilize

savings from the public until the year 2006 when the microfinance Act was enacted. These results show a trend of MFIs increasingly embracing deposit taking in light of the enabling legislation. However, a big portion of MFIs are yet to embrace deposit taking. Public savings in MFIs is usually the main source of funds for lending purposes. The results are summarized in table 4.2 below

Table 4. 2 Organization type

Organization type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-deposit taking MFI	17	53.1	53.1	53.1
	Microfinance Banks	15	46.9	46.9	100.0
	Total	32	100.0	100.0	

4.4.2 Age of the MFI

The results of this study showed that approximately 69 percent of the MFIs in Kenya have not been in existence for more than ten years. Only 31 percent of MFIs in Kenya have been in existence for more than 10 years. The proliferation of MFIs in the last ten years can be possibly explained the enactment of the Microfinance Act (2006) which was done roughly ten years back. The details are as summarized in table 4.3 below

Table 4. 3 MFIs Age Distribution

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 – 5	9	28.1	28.1	28.1
	6 – 10	13	40.6	40.6	68.8
	Above 10	10	31.3	31.3	100.0
	Total	32	100.0	100.0	

4.4.3 MFI branch network

Most MFIs in Kenya are fairly small in size with 63 percent of them having less than 10 branches country wide. Only 22 percent of the MFIs have more than 10 branches countrywide. This implies that a satisfactory MFI outreach in the country is yet to be attained. However, the tremendous proliferation on new MFIs in the last 10 years is a good indication. The summary of MFI branch coverage is outlined in table 4.4 below:

Table 4. 4 MFI branch network

Number of Branches

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10	20	62.5	62.5	62.5
	10 – 20	5	15.6	15.6	78.1
	More than 20	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

4.4.4 MFI Lending Modalities

In this study a question was posed to the respondent as to whether the MFI lends to individual borrowers, group of borrowers (group lending) or adopts both approaches. Approximately 56 percent of the MFIs use group lending modality, only 44 percent of the MFIs use individual lending approach exclusively. Most MFIs adopt the group lending approach because it minimizes default risk due to peer pressure among the group members. The results are in table 4.5 below

Table 4. 5 MFI lending Modality

Lending modality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Individual Lending	14	43.8	43.8	43.8
	Group Lending	16	50.0	50.0	93.8
	Both	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

4.4.5 Use of Credit Reference Bureau by MFIs

The researcher sought to find out the extent to which MFIs have adopted the use of credit reference bureaus in their lending framework. The results showed that 81 percent of MFIs in Kenya use the services of credit reference bureaus in determining the borrower credit worthiness. This shows the centrality of credit history in evaluating a loan applicant among MFIs in Kenya. Table 4.6 below shows the results

Table 4. 6 MFI use of credit reference bureaus

MFI uses credit reference bureaus in lending policy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	6	18.8	18.8	18.8
	Yes	26	81.3	81.3	100.0
	Total	32	100.0	100.0	

4.5 Descriptive Analysis

In this section, the study presents summary information about the opinion of respondents on different constructs in the form of descriptive statistics. Generally, there were varied opinions on the role of each independent variable in influencing the dependent variable.

4.5.1. Influence of credit history on the borrowing cost

Table 4.7 gives a summary of respondents' opinions on the effect of credit history on the borrowing cost. The results show a divided opinion, while 37.5 percent of the respondents agreed that a good credit history translates into relatively lower interest rates being charged, an equivalent number of respondents held the contrary opinion (disagreed). The results also indicated that 21.9 percent of the respondents opined that credit history moderately influences the cost of borrowed. When the researcher lumps together those that agreed with those who moderately agreed the cumulative percentage of this category is 59.4 percent. This implies that credit history is an important determinant of the interest levied on borrower – that is, a better credit history is likely to translate into lower interest rates.

Table 4.7 a Effect of credit history on borrowing cost

Credit history

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	3.1	3.1	3.1
	Disagree	12	37.5	37.5	40.6
	Moderate	7	21.9	21.9	62.5
	Agree	12	37.5	37.5	100.0
	Total	32	100.0	100.0	

The mean value of 2.9375 ≈ 3.000, as captured in table 4.7b below shows that the general opinion on average was that credit history has an effect on borrowing cost to a moderate extent. Note that the vale 3 corresponds to the opinion "Moderate". However, the standard deviation value of 0.94826 (not close to zero) is an indication that there was a diversity of opinion on whether or not credit history affects borrowing cost and to what extent. Note that a standard

deviation value of zero would imply there was 100 percent consensus on the respondents' opinion.

Table 4.7 b Mean and standard deviation

	N	Mean	Std. Deviation
	Statistic	Statistic	Statistic
Credit history	32	2.9375	.94826
Valid N (listwise)	32		

4.5.2 Influence of soft information on borrowing cost

This study sought respondents' opinion on whether soft information has influence on the cost of borrowing. In this respect there was also no consensus. Generally, 46.9 percent (21.9 + 21.9 + 3.1) of the respondents agreed that borrower soft information in possession of the MFI has an influence on the cost of lending. Possession of positive soft information has an effect of reduced borrowing cost and vice versa. On the other hand, 53.1 percent (15.6 + 37.5) of respondents disagreed that soft information has an effect on the borrowing cost. This implies that there is polarized opinion on this issue.

Table 4.8 a Effect of soft information on borrowing cost

Soft information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	15.6	15.6	15.6
	Disagree	12	37.5	37.5	53.1
	Moderate	7	21.9	21.9	75.0
	Agree	7	21.9	21.9	96.9
	Strongly Agree	1	3.1	3.1	100.0
	Total	32	100.0	100.0	

The researcher obtained further information by computing the mean and standard deviation of the responses. As seen in table 4.8 b the average consensus lied at 2.5937 ≈ 3.000. The interpretation of this is that the respondents agreed to a moderate extent that soft information has an effect on the borrowing cost. However, a standard deviation score of 1.10306 implies that

there was a polarized opinion on this issues, that is, the respondents held extreme opinions on both ends. These measures of central tendency and dispersion are shown in table 4.8b

Table 4.8 b Mean and standard deviation

Descriptive Statistics

	N	Mean	Std. Deviation
Soft information	32	2.5937	1.10306
Valid N (listwise)	32		

4.5.3 Effect of Borrower Proximity on borrowing cost

In this study it was hypothesized that borrower proximity has a bearing on the cost of borrowing. In response to this question, 90.6 percent of the respondents disagreed that borrower proximity affects borrowing cost. On the other hand, 9.4% agreed that borrower proximity affects borrowing cost. These results are shown in table 4.9a below

Table 4.9 a Influence of borrower proximity on borrowing cost

Borrower proximity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	40.6	40.6	40.6
	Disagree	16	50.0	50.0	90.6
	Moderate	1	3.1	3.1	93.8
	Strongly Agree	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

On average, the respondents disagreed that borrower proximity affects borrowing cost. This is as evidenced by the mean score of 1.8125 ≈ 2.000. Note that the value 2 corresponds to the opinion "Disagree". Furthermore, a standard deviation value of 0.99798 (far from zero) shows that there was a divided opinion on this question.

Table 4.9 b Mean and standard deviation

Descriptive Statistics

	N	Mean	Std. Deviation
Borrower proximity	32	1.8125	.99798
Valid N (listwise)	32		

4.6 Regression Diagnostic Tests

Regression diagnostics play a vital role in finding and validating a good predictive relationship between the dependent and independent variables. This being a cross-sectional study only two tests were relevant. Normality and Multicollinearity diagnostic tests were undertaken to give an assurance about robustness of the regression model utilized.

4.6.1 Normality Test

Normality test was undertaken to establish whether the data set was normally distributed. Histograms fitted with a normal distribution curve were used for this purpose. A supplementary test was also undertaken using kurtosis and skewness statistics. Normality test was undertaken to establish whether the data set was normally distributed. Histograms fitted with a normal distribution curve were used for this purpose. Figure 4.1 shows that the data on credit history is fairly normally distributed.

Figure 4. 1 Credit History data histogram

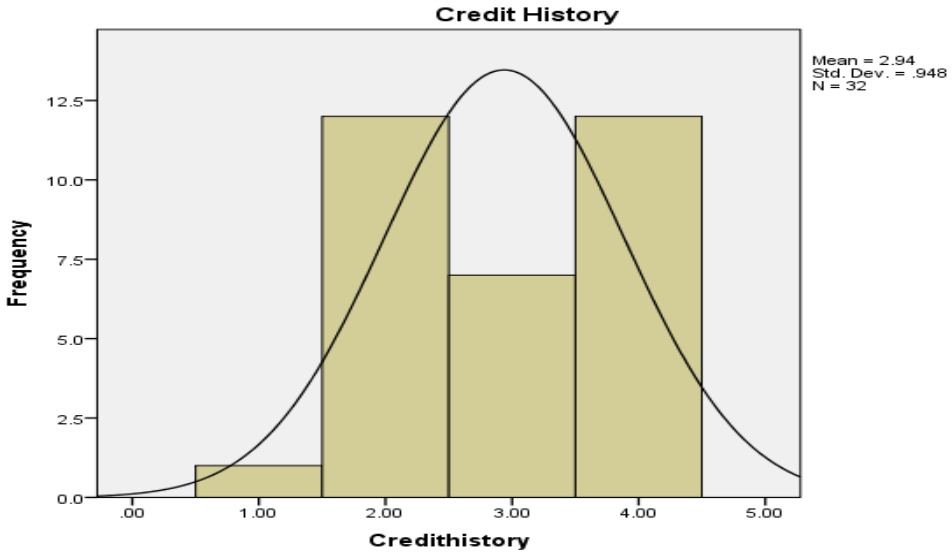
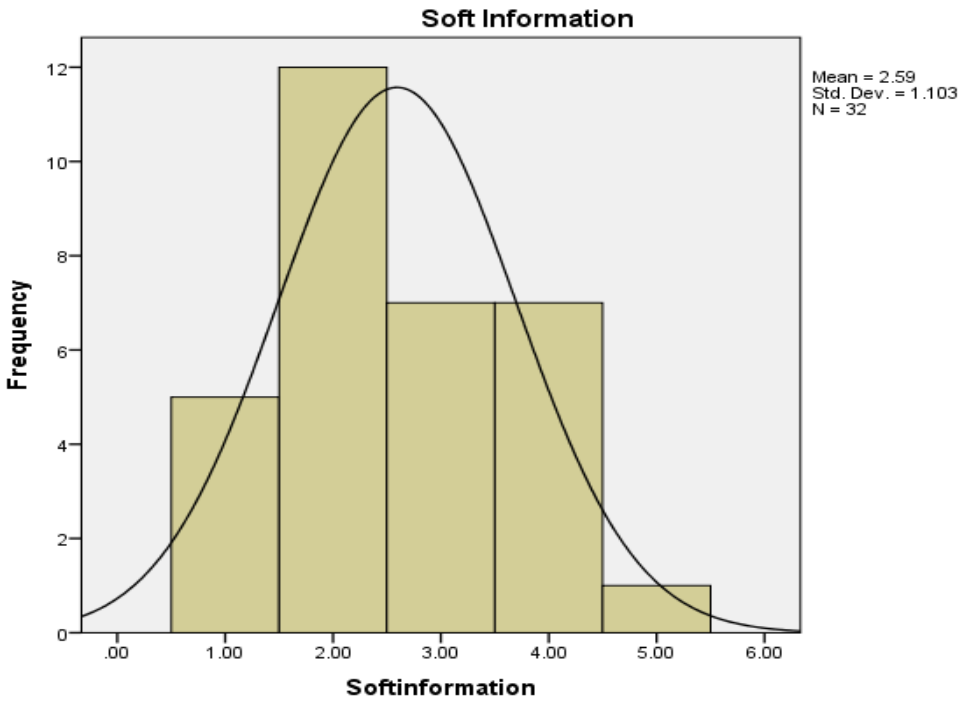


Figure 4.2 shows the distribution of data used to measure the effect of soft information. The histogram shows some high degree of peakedness. But, a casual inspection shows that the peakedness is not severe enough to affect the regression results. However, the results were confirmed further by computing kurtosis and skewness coefficients.

Figure 4. 2 Soft information data histogram



Finally, a normality test on the borrower proximity data was undertaken. The results are as captured in figure 4.3. An inspection of the results shows that the data is normally distributed.

Figure 4. 3 Borrower proximity data histogram

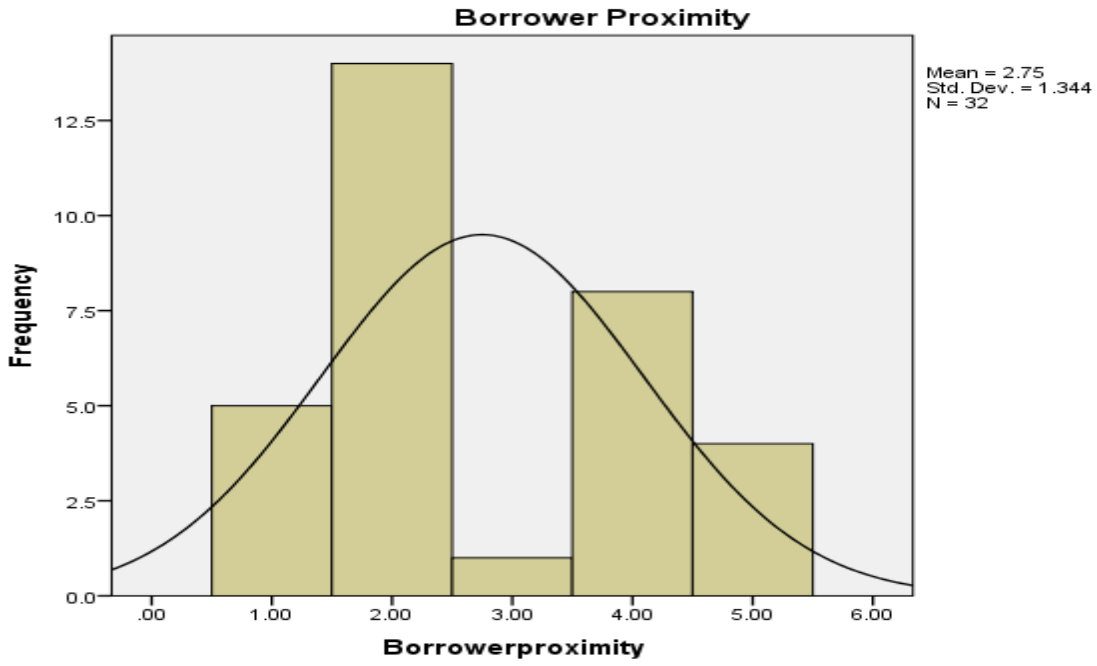


Table 4.11 below shows the results of kurtosis and skewness tests. According to George and Mallery (2010) the values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution. The results in the table below shows that the skewness and kurtosis values for the three variables are within the -2 to +2 range and hence the data is fairly normally distributed

Table 4.1 1 Skewness and Kurtosis

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Credit history	32	-.112	.414	-1.442	.809
Soft information	32	.275	.414	-.961	.809
Borrower proximity	32	.091	.414	-1.251	.809
Valid N (listwise)	32				

4.6.2 Multicollinearity Test

Multicollinearity refers to a situation whereby there is a strong relationship between the independent variable. Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors (Belsley *et al.*, 1980).

Multicollinearity was assessed in this study using a correlation matrix. Pearson correlation values greater than 0.7 are indicators of multicollinearity (Field, 2009). The results in table 4.11 indicate that there is absence of multicollinearity as all the pearson coefficients are less than 7.0.

Table 4.1 2 Correlation Matrix

Correlations

		Credit history	Soft information	Borrower proximity
Credit history	Pearson Correlation	1	-.170	.062
	Sig. (2-tailed)		.353	.738
	N	32	32	32
Soft information	Pearson Correlation	-.170	1	.086
	Sig. (2-tailed)	.353		.640
	N	32	32	32
Borrower proximity	Pearson Correlation	.062	.086	1
	Sig. (2-tailed)	.738	.640	
	N	32	32	32

4.7 Regression Model

An estimation of the relationship between the independent variables and the dependent variable was conducted using a regression model. In this study, borrowing cost was the dependent variable while the independent variables included credit history, soft information, and borrower proximity.

4.7.1 Regression Coefficients

The regression results are as shown in table 4.13 below

Table 4.1 3 Regression coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.887	.223		-3.977	.000
	CH	.703	.138	.469	5.095	.000
	SI	.720	.135	.586	5.338	.000
	BP	-.090	.112	-.063	-.799	.431

a. Dependent Variable: CR

The estimated regression equation takes the form: CR= -0.887 + 0.46CH+0.586SI – 0.063BP

The results show that credit history and soft information have a significant influence on the borrowing cost among MFI borrowers. This is as supported by the P values of 0.000 for the variables regression coefficients. However, borrower proximity has not relationship with the borrowing cost. This is as evidenced by the regression coefficient's P value of 0.431 which is way above the benchmark significance value of $\alpha = 0.05$.

Both credit history and soft information have a favourable influence on the borrowing cost. That is to imply that any positive information as regards credit history and soft information leads to reduced borrowing cost. The positive regression coefficients of 0.469 and 0.586 for credit history and soft information respectively attest to this. The reduced borrowing cost could come in the form of lower interest rates, non-requirement of collateral, non-credit rationing and longer repayment periods.

4.7.2 Model Explanatory Power

The regression model explanatory power was measured using R squared. The results are shown below in table 4.14

Table 4.1 4 R squared

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.969[a]	.938	.932	.37136	.938	142.265	3	28	.000

a. Predictors: (Constant), BP, CH, SI

The results show that 93.20% of the changes in the borrowing cost among the MFI borrowers is explained by credit history and soft information. This as evidenced by the R squared value of 0.932 and a significant P value of 0.000.

4.7.3 Significance of the Overall Model

The significance of the overall model was tested using the F-statistic. The results indicate that all the independent variables are a good joint predictor of the dependent variable. From the following ANOVA Table 4.14 the F-statistic value obtained was 142.265 which was significant at $\alpha = 0.05$ as supported by the p-value of 0.000.

Table 4.1 5 One Way ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.857	3	19.619	142.265	.000[b]
	Residual	3.861	28	.138		
	Total	62.719	31			

a. Dependent Variable: CR

b. Predictors: (Constant), BP, CH, SI

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the study findings. The chapter also gives the conclusions and recommendations of the study based on the objectives of the study. The objective of the study was to determine the effect of information asymmetry on the cost of borrowing among MFI clients in Kenya.

5.2 Summary of the Findings

Money and credit are the lifeblood of an economy. The ability of borrowers to access credit at reasonable terms is critical to facilitate investment and commerce, and thereby sustain economic growth. Most microfinance clients are information opaque and this partly explains the high risk premium attached to lending hence higher interest rates. Therefore, the poor still find it difficult to access finances from MFIs because of the fairly high cost of loans. MFIs usually take different measures aimed at protecting the lender against information asymmetry namely higher interest, collateral requirement, shorter debt maturity and credit rationing which constitute a cost to the borrower. This study sought to find out the effect of information asymmetry on the cost of borrowing among the microfinance clients in Kenya.

The first objective of the study was to find out the effect of credit history on the cost of borrowing among MFI clients in Kenya. The regression equation model results revealed that credit history has a significant effect on the borrowing cost among the MFI clients. The regression analysis returned a positive coefficient of + 0.46 (P value = 0.000). This means that a good credit history has the effect of accessing credit at lower borrowing cost among the MFIs borrowers in Kenya. These findings are as corroborated by Barbosa and Marcal (2011), Ngugi (2001), Howorth and Moro (2012), and Huang *et al.* (2014).

The second objective of the study was to find out the effect of soft information on the cost of borrowing among microfinance borrowers in Kenya. The analysis showed that soft information has a significant effect on the cost of borrowing among the microfinance borrowers in Kenya.

The regression results returned a positive coefficient of +0.586 (P value = 0.000). This implies that favorable soft information has the effect of lowering the borrowing cost among the MFI borrowers in Kenya. These results are similar to those obtained by Campbell and Loumioto (2013), Wanzare (2010), Aurizion, *et al.* (2012), and Sseggujja (2010). However, Kysucky and Norden (2013) after conducting a meta-analysis concluded that higher prevalence of relationship lending (soft information) does not necessarily come along with higher benefits for borrowers.

The third objective of the study was to find out the effect of borrower proximity on the cost of borrowing among microfinance borrowers in Kenya. The regression results showed that borrower proximity has no relationship with the cost of borrowing among MFI borrowers in Kenya. The analysis returned a P value of 0.431 which is way above the benchmark $\alpha = 0.05$ significance level. However, this is contrary to results obtained in some other contexts like by Bellucci *et al.* (2013) and Ostromogolsky (2017).

The results further showed that credit history and soft information are good joint predictors of the borrowing cost among microfinance clients in Kenya. This is as supported by the significant F statistic value of 142.265 (P value = 0.000). The results indicated that holding other factors constant 93.20% of changes in the cost of borrowing among MFI clients in Kenya is explained by credit history and soft information.

5.3 Conclusion

The study findings show that borrower credit history and soft information are significant influencers of borrowing cost among microfinance borrowers in Kenya. Favorable borrower credit history and soft information have a favorable effect of reducing the borrower cost of borrowing among microfinance borrowers in Kenya. The reduced borrowing cost could come in different ways which includes: lower interest rates, collateral requirement waiver, longer loan maturity and non-rationing of the credit.

The study also concludes that in the Kenyan context borrower proximity has no effect on the cost of borrowing among microfinance borrowers in Kenya. This implies that microfinance institutions in Kenya do not take into account the physical distance of the borrower from the MFI

when evaluating a loan application. Therefore, the MFI will only consider other factors in making the lending decision but not borrower proximity.

From the theoretical perspective, the findings of this study concur with the information asymmetry theory argument, that information asymmetry can lead to an increase in borrowing cost. This theory as it relates to the credit market was originally advanced by Akerlof (1970). In general, the price of a loan is based on the lender's cost plus a risk premium. The size of this premium depends on the lender's ability to properly assess the creditworthiness of the borrower. Presence of information asymmetry therefore implies that this premium will be high hence higher borrowing cost.

5.4 Recommendations

The study recommends that microfinance institutions in Kenya should leverage borrower credit history and soft information to mitigate information asymmetry challenges. This practice will also be beneficial to the borrowers who possess good credit history standing and positive soft information. By extension this will make the bottom of the society (microfinance clients) to access credit at favorable terms. In turn, this will have a positive impact on the economy by mainstreaming the poor into economic participation through affordable credit which can be used to finance business operations sustainably.

Credit reference bureaus (CRBs) play a very central role in bridging the information gap between the borrowers and lenders. Therefore, the relevant policy makers should work on growing the presence of more CRBs in the country. This will include availing a policy (legal) environment that fosters the growth of CRBs and use of their services by the lending institutions. Credit Reference Bureaus complement the central role played by banks and other financial institutions in extending financial services within an economy. CRBs help lenders make faster and more accurate credit decisions. They collect, manage and disseminate customer information to lenders with in a provided regulatory framework. Credit histories not only provide necessary input for credit underwriting, but also allow borrowers to take their credit history from one financial institution to another, thereby making lending markets more competitive and, in the end, more affordable. Credit bureaus assist in making credit accessible to more people, and enabling

lenders and businesses reduce risk and fraud. Sharing of information between financial institutions in respect of customer credit behaviour, therefore, has a positive economic impact.

The study notes that MFIs should also take advantage of soft information to lower the cost of borrowing to the good clients. Soft information is typically obtained through relationship banking. One of the most powerful technologies available to reduce information problems in small firm finance is "relationship lending." Under relationship lending, banks acquire information over time through contact with the firm, its owner, and its local community on a variety of dimensions and use this information in their decisions about the availability and terms of credit to the firm.

5.5 Suggestions for Further Research

The focus of this study was to find out the effect of microfinance on borrowing cost among the microfinance borrowers in Kenya. The study only zeroed in on the MFIs operating within Nairobi County which is an urban setting. There might be some issues that uniquely affect the rural setting MFIs and clients. Therefore, it is recommended that a study that captures clients in both urban and rural setting should be undertaken.

This was a cross-sectional study. Probably a time series study would be able to reveal better information by tracking the borrowing cost of a client over time as s/he progressively builds relationships with the lender as well as the lender compiles the customer credit history over time.

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APPENDICES

Appendix I: List of MFIs in Kenya (2017)

	MEMBER NAME	ADDRESS
1	Blue Limited	Chester House-Koinange Street P.O Box 27749-00100 NAIROBI
2	K-rep Development Agency	K-Rep Development Agency Ltd K-Rep Centre| 7th Flr. Wood Av. Kilimani P.O. Box 10528 – 00100, Nairobi.
3	Eclof Kenya	Chiromo, Royal Offices, Mogotio Road P.O Box 34889 NAIROBI **Email:** info@eclof-kenya.org
4	KADET sumac	Capital Hill, Cathedral Road Community P.O Box 1676-00200 NAIROBI
5	BIMAS	Bimas Complex P.O Box 2299 EMBU
6	SISDO	Ngong Road, Ngong lane P.O Box 76622-00508 NAIROBI
7	Micro Africa Ltd	P.O Box 52926 NAIROBI
8	Opportunity Kenya	Geomaps Centre-Matumbata road Upper Hill P.O Box 19497-00202 Nairobi
9	Yehu Microfinance Trust	Buxton, Tom Mboya Street P.O Box 82120 NAIROBI
10	Fusion Capital Ltd	ACK Garden house, Wing A, Ground Floor, 1st Ngong Avenue, Community next to Ardhi house.
11	Canyon Rural Credit Ltd	Studio Hse,3rd floor P.O. Box 46532-00100 Nairobi.
12	One Africa Capital Ltd	Koinange Street-Ratansi Educational Trust Building, 2nd Floor P.O. Box 74093-00200 oneafrica.microfin@yahoo.co.uk
13	Jitegemea Credit Scheme	Jogoo Road, KCB building P.O Box 46514, NAIROBI jitegemea@wananchi.com
14	AAR Credit Services	Methodist Ministries Centre, 1st Floor Oloitokitok Road
15	Agakhan Foundation Microcredit Programme	Mpaka plaza, Westlands 3rd floor P.O Box 13149-00100, NAIROBI
16	ADOK TIMO	Sifa House, Ground Floor, Mission Rd. Off Kakamega Rd. Opposite Kibuye Market. KISUMU.
17	Pamoja Women Development Programme	Kikinga House, Kiambu Town P.O. Box 2472 – 00100 Nairobi E-mail: info@pawdep.org
18	Juhudi Kilimo Co. Ltd	Mucai Road, Ngong Road P.O. Box 10528-00100 Nairobi E-mail : nat@juhudikilimo.com
19	Musoni Kenya Ltd	Cape Office Park Along Ring Road Kilimani, Opposite Yaya Centre

		P.O. Box 25351-00100 Nairobi.
20	Molyn Credit Ltd	Bruce House 9th Floor Standard Street P.O. Box 10144-00100 Nairobi Email : info@molyn.co.ke
21	Renewable Energy Technology Assistance Programme(RETAP)	Waumini Hse, Westlands 1st Floor P.O. Box 28201-00200 Nairobi E-mail : info@retap-africa.org
22	Rupia Ltd	View Park Towers, 10th Floor P.O. Box 2987-00200 Nairobi Tel : 2251389 Email : info@rupialtd.com
23	Taifa Options Microfinance	Finance House, Kenyatta Highway P.O. Box 727, Ruiru E-mail : taifaoption@yahoo.com
24	U&I Microfinance Ltd	1st Floor, Asili Complex River Road/Latema Road Junction Opposite Kampala Coach E-mail: info@uni-microfinance.co.ke
25	Select Management Services Ltd	Kenya Re towers, off Ragati Road P.O. Box 27639 - 00506 Nairobi.
26	Greenland Fedha Ltd	KTDA, KTDA farmers building P.O. Box 30213-00100 Nairobi.
27	Youth Initiatives – Kenya (YIKE)	Kariobangi North, Sanoda Hse, 2nd Flr P.O. Box 50622-00200, City Square, Nairobi
28	Biashara Factors	Finance House, 11th Floor, Loita Street P.O. Box 66065-00800 Nairobi
29	Platinum Credit Limited	2nd floor, union towers, Moi avenue\ P.O. Box 73304-00200 Nairobi info@platinumcredit.co.ke
30	Ngao Credit Ltd	2nd Floor NHIF Bldg. Community P.O. Box 60776-00200 Nairobi Email: info@ngaocredit.com
31	Indo Africa Finance	Museum Hill Centre 3rd Floor, Museum Hill Road P.O. Box 39435-00623 Nairobi – Kenya Email: info@indoafricafinance.co.ke
32	Springboard Capital	Kensia House along Muranga road, Opposite Kobil Petrol Station 1st Floor, suite no.12 P.O. Box 23720-00100, Nairobi.
33	Mini Savings & Loans Ltd	Highway Building, Githunguri Town (Near Githunguri Post Office) P.O. Box 874-00216, Githunguri, Kiambu Email: minisaving@yahoo.com
34	KEEF-Kenya Entrepreneurship Empowerment Foundation	Mapa House 3rd Floor Kiambu Road P.O. Box 648 Kiambu
35	Women Enterprise Solutions	Development House, Moi Avenue P.O. Box 4083-00200 Nairobi. info@wesokenya.com
36	Focus Capital Limited	Donholm Mina Centre P.O. Box 2406-00202 Nairobi.

		Email:aligeproperty@rocketmail.com
37	Samchi Credit Limited	Parklands Plaza P.O. Box 16982-00620 Nairobi. **Email:** martin.gikera@samchicredit.co.ke,info@samchicredit.co.ke
38	Fountain Credit Services Ltd	Ngong Road , near Kobil Petrol Station P.O. Box 72367-00200 Nairobi. **Email:** mgachau@fep-group.com, gkariuki@fep-group.com
39	Milango Financial Services	Rozina Building, Moi Avenue Street P.O. Box 99637-80107, Mombasa **Email:** info@milangokenya.co.ke
40	Nationwide Credit Kenya Ltd	Trishul Towers, 1st Floor Near Globe Roundabout Next to Paramount Plaza P.O. Box 41873-00100 Nairobi. **Email:** nationwidekenya@yahoo.com
41	Fort Credit Limited	Equity Plaza (Thika) 2nd Floor P.O. Box 6685-001000 Thika **Email:** info@fortcredit.org
42	Kenya Women Finance Trust-DTM	Upper hill, Kiambere Road P.O BOX 4179-00506 NAIROBI.
43	Rafiki Deposit taking Microfinance Ltd	Elroy Plaza, Tom Mboya Street, P.O. Box 66049 00800 Nairobi
44	Faulu Kenya DTM	Ngong Road, Ngong lane P.O BOX 60240-00200 NAIROBI
45	SMEP DTM	Kirichwa Road, Kilimani P.O BOX 64063 NAIROBI
46	Remu DTM Ltd	Finance House, 14th Floor, Loita street P.O. Box 20833-00100 Nairobi
47	Uwezo DTM Ltd	Park Plaza, Ground Floor, Moktah Daddah Street P.O. Box 1654-00100 GPO Nairobi
48	Century DTM Ltd	New Pumwani Road K K Plaza, Gikomba
49	Sumac Credit DTM Ltd	Consolidated Bank Building, Koinange Street, 2nd Floor P.O. Box 11687-00100 Nairobi

Source: Association of Microfinance Institution, Kenya (2017)

Appendix 2: Letter of Introduction

Edwin Muli

P.O. BOX 1140-00300

Nairobi – Kenya

Mobile Telephone: 0725 175 319

Email address: muliedwins@gmail.com

Dear respondent,

RE: DATA COLLECTION

My name is Edwin Muli; I am an MBA (Corporate Management) student at KCA University. This questionnaire is designed to collect data aimed at measuring the effect of information asymmetry on the cost of borrowing among microfinance clients.

The researcher wishes to assure you that any information provided will be used purely for academic purposes and will be treated with utmost confidentiality. Any assistance accorded in filling this questionnaire will be highly appreciated.

I thank you

Edwin Muli

Appendix 3: Questionnaire

PART A: GENERAL INFORMATION

Please answer the following questions in the spaces provided.

1. Kindly indicate the name of your organization

   ……...

2. Kindly indicate your organization type by ticking on the appropriate box

   Microfinance bank [ ] Non-deposit taking MFI [ ]

3. Kindly indicate age bracket of your organization in years by ticking on the appropriate box

   1-5 [ ] 6- 10 [ ] Above 10 [ ]

4. Kindly indicate the number of branches the organization has within Kenya

   Less than 10 [ ] 10 - 20 [ ] more than 20 [ ]

5. Kindly indicate the lending modality used by your organization

   [ ] individual lending [ ] group lending [ ] both

6. Does your organization use credit reference bureau services as part of her lending policy?

   Yes [ ] No [ ]

PART B: Credit History – Effect of credit history on the cost of borrowing

7. Please indicate the extent to which you agree with credit history as a factor that affects the cost of borrowing among your clients.

Use the scale where 5= strongly agree, 4=Agree, 3= Moderate, 2=Disagree, 1= Strongly Disagree

Statements on credit history	**1**	**2**	**3**	**4**	**5**
Client good credit history leads to lower interest rate being charged and vice versa					
Client good credit history leads to a loan being awarded with no collateral requirement and vice versa					
Client good credit history leads to award of longer loan repayment period and vice versa					
Client good credit history leads to the full loan amount requested being awarded and vice versa					

PART C: Soft Information - The extent to which client soft information possession affects the cost of borrowing

8. **Please indicate the extent to which you agree with soft information as a factor that affects borrowing cost among your clients.**

Use the scale where 5= strongly agree, 4=Agree, 3= Moderate, 2=Disagree, 1= Strongly Disagree

Statements on soft information	**1**	**2**	**3**	**4**	**5**
Possession of positive soft information about the client leads to lower interest rates being charged and vice versa					
Possession of positive soft information about the client leads to waiver of collateral requirement and vice versa					
Possession of positive soft information about the client leads to award of longer repayment period and vice versa					
Possession of positive soft information about the client leads to award of the full loan amount requested and vice versa					

PART D: Borrower Proximity – the extent to which borrower proximity affects the cost of borrowing

9. Please indicate the extent to which you agree with borrower proximity as a factor that affects microfinance clients cost of borrowing.

Use the scale where 5= strongly agree, 4=Agree, 3= Moderate, 2=Disagree, 1= Strongly Disagree

Statements on borrower proximity	**1**	**2**	**3**	**4**	**5**
Borrowers who resides in close proximity are charged relatively lower interest rates and vice versa					
Borrowers who reside in close proximity are often not required to offer collateral and vice versa					
Borrowers who reside in close proximity are normally given longer loan repayment periods and vice versa					
Borrowers who reside in close proximity often get the full loan amount requested and vice versa					

PART E: Cost of Borrowing

10. **Please indicate the extent to which you agree with the following factors as the determinants of borrowing cost among microfinance clients**

    Use the scale where 5= strongly agree, 4=Agree, 3= Moderate, 2=Disagree, 1= Strongly Disagree.

Statements on cost of borrowing	**1**	**2**	**3**	**4**	**5**
Clients' credit history affects the client cost of borrowing					
Soft information affects the client cost of borrowing					
Borrower proximity affects the client cost of borrowing					

END OF QUESTIONNAIRE – I THANK YOU FOR YOUR COOPERATION