CAPPING OF COMMERCIAL BANK INTEREST RATES AND ITS IMPACT ON NUMBER OF LOAN ADVANCES GENERATED BY MICROFINANCE INSTITUTIONS

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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A Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA)

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SPRING 2018
STUDENTS DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ________________________ Date: ________________________
Beryl Sarah Babu (ID 645382)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ________________________ Date: ________________________
Prof Kepha Oyaro

Signed: ________________________ Date: ________________________
Dean, Chandaria School of Business
ACKNOWLEDGMENT

I wish to take this opportunity to thank God for making this possible without his provisions this would not be possible. I also wish to take this opportunity to thank my family members for their overwhelming support, a big thanks to my mother for cheering me on to the end of this study and my father for the advice and support. A special thanks to my supervisor Prof Kefa Oyaro for his guidance throughout this study.
ABSTRACT

The purpose of this study was to examine if the number of loan advancements by microfinance institutions was affected after interest rate caps on commercial bank loans. From previous research, interest rate caps have been known to lead to disintermediation and reversing the gains made of financial inclusion, this study sought to investigate if this is the case in Kenya, whether loan borrowers perceived to be of high risk were locked out from accessing loans from commercial banks and if they turned to an alternative financier such as microfinance institutions. Three research questions emerged to provide a deeper insight into the study: Factors Considered while Determining Interest Rates (ii) Evaluation of Microfinance Institutions (MFIs) Sources of Finance and (iii) Evaluation of how Interest Rate Caps affect financial institutions.

The research methodology used was Causal Explanatory as the study was concerned with understanding the relationship among variables. The population consisted of 108 outlets of financial institutions, included were: One representative of the Umbrella body of cooperative societies (KUSCCO) and 107 outlets of the 13 regulated MFIs. Using Yamane 1967 formula, a sample of 86 was arrived at. The researcher administered 86 questionnaires but only 67 responses out of the 86 were received, this is a response rate of 78% which is considered appropriate for the study. Secondary data was also collected from the databases of World Bank and Central Bank of Kenya.

Stratified sampling technique was used to identify and collect data from representatives, SPSS (Statistical Package for Social Sciences) was used to code and analyse the data. Regression analysis was used to determine the relationships between variables and descriptive statistics using frequency distribution, percentages and mean was carried out. Pie charts and graphs were also used to display detailed information. Lastly, interpretation of results was done to give meaning to statistical results obtained from regression analysis and descriptive statistics.

It was established that there are a number of factors considered while determining interest rates. For analysis purpose, researchers divide the factors considered into three main categories namely: Bank Specific Factors, Industry Related Factors and Macro Economic Factors. Bank Specific Factors includes: Risk aversion, bank specialization and off balance sheet exposure. Industry Related Factors include: Competition and market forces. Macro-Economic Factors include: Monetary policy and business cycle.
It was also established that microfinance institutions depend on different sources of finance, among the sources of finance mentioned are: Client deposits, donor funding, retained earnings and share holder funds. Donor funding was the traditional form of finance for most MFIs as they were first established as Non-Governmental Institutions but over the years, this source of finance has proven to be unreliable especially if sustainability of MFIs is to be considered.

Interest rate caps have both positive and negative effects. Interest rate caps could be used to promote operational efficiency as financial institutions operating at inefficient levels are coerced to reduce on costs, interest rate caps can also be used for consumer protection from dominant players in the financial markets. On the negative, they may cause disintermediation when financial institutions lock out part of the market segment consisting of borrowers considered being high risk. Interest rate caps also affect Central Bank’s ability to make monetary policy decisions.

It was concluded that MFIs consider many different factors before interest rate determination takes place, risk featured as a prominent factor. It was indicated that client deposits was the cheapest source of funding. After interest rate caps came into effect, loan requests at commercial banks increased but this did not translate to loan disbursements as commercial banks opted to lend more to less risky client category made of corporate clients and government therefore locking out low income earners, small and medium enterprises and new borrowers. It was also revealed that microfinance institutions did not increase loan disbursements as was expected as locked out borrowers turn to MFIs for financing.

As risk featured as a major interest rate determinant, the study recommended that financial institutions should make more use of Credit Reference Bureaus for credit rating purposes as low income earners and SME’s could have a good credit stand despite lack of collateral. Also that, MFIs should be encouraged to make more use of technology to lower high administrative costs as is the case with Mshwari which lends out micro loans. The study also recommended that interest rate caps should be slightly increased to allow for inclusion of high risks clients but should not been done away with for consumer protection from dominant players in the financial markets.
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LIST OF ACRONYMS AND ABBREVIATIONS

CGAP- Consultative Group to Assist the Poor

COFEK- Consumer Federation of Kenya

NIM- Net Interest Margin
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Microfinance Institutions commonly known as MFIs are financial organizations tailored to meet the needs of low income earners (Marconatto, Cruz and Pedrozo, 2016). Low income earners have little or no access to conventional banking products (Bakker, Schaveling and Nijhof, 2014). Robinson (2001) defines MFIs as a significant tool for product alleviation. What clearly distinguishes MFIs from conventional, commercial or government sponsored institutions is the promise of financial services to the poor or disadvantaged in society (Hardy, Holden and Prokopenko, 2002). According to Ledger Wood (1999) the term MFI was coined to refer to financial services provided to the disadvantaged in society. Ledger Wood (1999) further adds that MFIs are not limited to financial intermediation but may also provide social intermediation through the provision of services such as: financial literacy programs, group formation and managerial capabilities. Among all financial products provided by MFIs, microcredit predominates (Rosenberg, Gaul, Ford and Tomilova, 2013).

Before MFIs came into being low income earners engaged in creative ways of meeting their needs, this could involve exchanging livestock for a much needed commodity as they lacked dispensable funds. Another way in which they met their needs was by ‘saving up,’ meaning saving in bits until they reached the targeted funds, this could involve rearing chicken for example and saving the proceeds from the sale (Rutherford, 2000).

Low income earners also met their needs by seeking the services of informal money lenders. While it is correct to say that informal money lenders provide significant financial services to low income earners, they commonly charge exorbitant prices and the loan conditions more often than not are not tailored to meet the needs of its clients (Robinson, 2001). Rutherford (2000) states that the biggest problem faced by the poor is getting access to much needed large amounts of funds.

There is evidence on the existence of MFIs as far back as the mid 1800’s with the emergence of community oriented pawnshops founded by Franciscan monks of the 15th Century. This evidence was captured by Lysander Spooner in his writing on the advantages of micro credit to farmers and entrepreneurs. Also among the first pioneers of MFIs was Friedrich Wilhelm Raiffeisen of the 19th Century who started the first
Cooperative Bank in rural Germany focusing on lending to farmers (Marconatto et al., 2016).

Modern use of MFIs can be traced back to the 1970’s when Grameen Bank based in Bangladesh was established by Muhammad Yunus (Bateman and Chang, 2009). Muhammad Yunus lent 27USD of his savings to 42 village women unlike banks, he didn’t demand for collateral but was assured of payments based on the productivity of the poor, he also insisted on lending to a group of borrowers as opposed to individuals because groups monitored each other and also guaranteed each other (Waweru and Spraakman, 2012). Grameen Bank has been a great success so far, it has greatly increased in terms of market visibility by expanding to other parts of the world; it has been difficult for other MFIs to replicate the same success (Bakker et al., 2014; Waweru and Spraakman, 2012). MFIs have since expanded beyond Grameen Bank. There has been a shift in MFI operations from a social movement to integration with the banking sector. This shift is an attempt to gain financial sustainability by charging interest rates that can cover costs as well as make a decent profit (Waweru and Spraakman, 2012).

Over the years, MFIs have revolutionized and are providing a wide range of financial services that are affordable and of high quality to everyone and especially low income earners. The array of financial products provided includes but is not limited to: credit facilities, savings, insurance and funds transfer. MFIs may also provide financial intermediation by providing services such as: collateral substitutes these could be in the form of group guarantees or compulsory savings, access to repeat and larger loans but may also provide social intermediation through the provision of services such as: group formation, financial literacy programs and managerial capabilities (Robinson, 2001; Van Rooyen, Stewart and De Wet, 2012).

A recent study on MFIs in Africa shows that they could lead to creation of opportunities and more importantly, financial access targeting low income households and small and micro enterprises, this in turn could lead to economic growth and empowerment. The ultimate result could be a positive impact on Africa’s six development priorities namely: Climate change adaptation, enhancing food security, promoting alternative sources of income and technological transfers (Chirambo, 2017). Due to lack of financial access, economies in Africa are growing at a slow pace with 32 out of 54 African countries analysed on financial inclusion Morocco ranked highest on financial access while Chad ranked lowest. Kenya ranked 12 in the list of 32 countries, Uganda 21, Tanzania 20,
South Africa 5 and Ghana 11 (Sankaramuthukumar and Alamelu, 2017). According to Aga and Peria (2014), Sub-Saharan Africa ranked as having only 24 percent of its population with an account in a financial institution this is in comparison to East Asia which has 55 percent of a banked population, Eastern Europe 33 percent, Latin America 39 percent and South Asia 33 percent.

Many countries in Africa are registering high levels of economic growth but not inclusive growth, as the pace of poverty alleviation has been too slow to reach the poverty reduction targets as stipulated in the past millennium development goals (Chirambo, 2017). In Sub-Saharan Africa, inequalities have taken the form of differences in average income between rural-urban households and access to social services such as: health and education. Climate change is also posing as a great threat to the world with its variations to weather patterns resulting to either floods, drought, loss of property, breakdown of infrastructure, spread of diseases, to mention but a few. Africa is also facing risks to climate change, for example, agricultural activities which is highly rain-fed dependant is among the main economic practices in the African continent and thus prone to the impacts of climate change (UNfccc. Int., 2018).

Africa is the most vulnerable to climate change than most developed countries due to its over reliance on agriculture as a main source of livelihood also due to Africa’s semi-arid climate and the concentration of populations in hazard zones. In addition, Africa’s adaptation deficit as a result of lack of technological capacity and financial availability has made Africa the most vulnerable continent to climate change (Schumacher and Srobl, 2011). Looking at factors influencing climate change adaptation across countries, evidence shows that lack of climate information in Ethiopia, lack of access to credit facilities in South Africa and lack of access to agricultural inputs and credit in Malawi have influenced adaptation to climate change in the afore mentioned African countries (Sanyang et al., 2016). MFI s have conveniently taken their place in addressing climate change issues in Africa by promoting climate change resilience activities such as: conservation agriculture, drip irrigation, organic farming and also by providing credit facilities to farmers and non-financial activities that have led to capacity building. MFI s have addressed issues related to food security by providing finances to farmers for technological revamping (Chirambo, 2017).
MFI
s are therefore viewed as a development tool that can address many of Africa’s challenges. MFI
s can reduce poverty; improve income and savings and the accumulation of assets. MFI
s have also provided many non-financial benefits such as: health and nutrition, food security, youth and women empowerment and housing and job creation (Van Rooyen, Stewart and De Wet, 2012).

It is argued that Sub-Saharan Africa has the highest number of budding businesses, and Africa has the highest number of women starting businesses (Amoros and Bosma, 2014). A great distinguishing feature of these start-up businesses is that most are in the informal sector (Chirambo, 2017). In Sub-Saharan Africa, micro and small businesses account for 90 percent of all businesses and contribute to an average of 25 percent of their countries GDP (Soubeiga and Strauss, 2013). Therefore, this means that Africa possesses a significant number of small enterprises that have the potential to grow and provide jobs to its unemployed population. MFI
s are better positioned to provide credit facilities and financial services to the many budding businesses in Africa that are a source of income for the majority poor, this is due to their greater outreach as some provide credit facilities to slum dwellers. Most importantly, they do not only provide credit facilities but also provide insurance, money transfer services, educational loans, health and nutrition workshops and advice on best agricultural practices (Agrawala and Carraro, 2010).

The reputation of MFI
s is the same in South Africa whereby they have been known to grow small and medium enterprises, their main focus is on SME’s. The local Government in South Africa was not geared towards social or economic development but was mainly administrative. The low income earners and poor mainly comprising of the black community were mostly concentrated in densely populated and crime ridden townships away from major economic activities, they had little or no access to financial services from traditional banks. South Africa suffers from high unemployment rates; this has led to the mushrooming of small and medium enterprises mostly in the informal sector. There prospects of growth is undermined by lack of support from the government or large financial institutions. Large financial institutions could not give financial services to SME’s due to high administrative costs associated with maintaining small accounts and also due to one of cases of credit scheme failures such as ABSA and SAMBOU (Mogale, 2007).
In the absence of financial services from large financial institutions to SME’s, MFIs supported by NGO’s came into play to fill in the gap for demand for financial services by SME’s in South Africa, though there services were more costly than conventional financial services, their popularity grew. Consultative Group to Help the Poor (CGAP) and Small Enterprise Foundation (SEF) were established to provide financial services to SME’s. They gave loans when the following conditions were met: That the loans were to be given to loan groups and not individuals; that the funds given were to be used exclusively for business purpose; that the owner(s) were to manage the business on a full time basis (Mogale, 2007).

In Tanzania, MFIs have also been used to reduce poverty levels. Slow economic growth in the formal sector and high levels of poverty pushed many Tanzanian’s into the informal sector. Most of the financial institutions in Tanzania are concentrated in the cities thus making it difficult for the rural households to get access to finance. Most of the entrepreneurs operate small businesses that are ran informally with no business plans, due to this and other reasons used to analyse a person’s credit worthiness, most financial institutions shied away from extending credit to the informal sector. They also shied away because of lack of collateral, high default rates and high transaction costs (Ssendi and Anderson, 2009).

Most of the MFIs created after Tanzania’s independence was not sustainable due to very cheap credit facilities and high default rates. Nevertheless, the government encouraged the creation of MFIs evidence shows that their preferred categories of borrowers are the youth and women in the cities excluding rural clients. The MFIs in Tanzania lend to both individuals and groups but encouraged the formation of groups as they could guarantee each other. Mennonite Economic Development Association (MEDA) and promotion of Rural Initiative and development Enterprises Limited (PRIDE) are among the best MFIs in Tanzania based on outreach. MFIs have also received numerous Government support through the Presidential Trust Fund (Ssendi and Anderson, 2009).

With 42 percent of Kenya’s population leaving below the poverty line, Kenya is ranked as the most unequal country in the Sub-Saharan region (UNICEF.org, 2017). MFIs in Kenya and Uganda receive huge donor support and are considered the success story in the African continent. Kenya leads Africa in housing the best MFIs in the continent, followed closely by Uganda with MFIs such as Finance Trust and Pride Microfinance. K-Rep established in 1980’s was among the first MFIs in Kenya specializing in giving credit and
technical support to other NGO’s. Kenya Women’s Trust Fund was among the first MFIs supported by K-Rep Bank. In 1999, K-Rep bank grew to become the first bank serving low income earners and also the first NGO to transform to a regulated financial institution. Deposit taking MFIs emerged in 2009; Faulu Kenya and KWFT were among the first MFIs in Kenya to evolve to deposit taking (Chinomona and Mazriri, 2015). Many would concur that MFIs stimulate economic growth, foster employment and support of small businesses. It is also stated that MFIs have encouraged financial inclusion of low income earners; this is because MFIs give low income earners the ability to manage their finances more successfully through savings and also take advantage of opportunities by gaining access to credit facilities. It has also been indicated that access to financial services by the poor has enabled them to grow their enterprises as well as improve their livelihoods (Robinson, 2001). MFIs have played a significant role in poverty alleviation by allowing financial inclusion of low income earners. Most notable is Bank Dangang Bali of Indonesia, which opened its doors in the 1970’s and gained nationwide coverage with the restructuring of the local banking system of the state owned Bank Rakyat Indonesia (BRI) in 1984. Through the bank, national poverty levels reduced from a staggering 40% poverty level in the mid 1970’s to approximately 11% in 1996 (Robinson, 2001). Evidence shows a mixed reaction in the role that MFIs have played in the society especially where poverty alleviation is concerned; this is because some school of thought argues that they have led to financial dependency on loans (Zaman, 1999).

1.2 Problem Statement

Interest rates charged on credit given by commercial banks has been a contentious topic for years. Interest rate is the price of money (Baxter, 1996). If a regulated firm’s rate is set to cost, the firm will not have an incentive to carry on with operations as no profits can be actualized from such as business. African banks have always charged high interest rates on loans; this could be due to the dominance of commercial banks in the financial markets as the main source of finance in developing nations. It is argued that the dominance of commercials banks is more pronounced in developing countries as opposed to developed countries. This is due to the fact that typical financial markets in developing countries are under developed with shallow stock markets making commercial banks the main source of finance. This may not be the case in developed countries such as US and UK where stock markets are well developed making the markets market based (Menyah, Nazliogla and Wolde-Rufael, 2014).
Profits are an essential factor for commercial banks and an important component for their survival (Olweny and Schiphol, 2011). Bank profitability and bank interest rate margins can be viewed as indicators of efficiency or lack thereof. Empirical evidence shows that, countries with underdeveloped financial systems have high levels of bank profits and margins (Kunt and Huizinga, 2000). These high margins are derived by offering a low return on deposits and charging high interest rates on loans (Olweny and Shipho, 2011). High interest rates could be a reflection of inefficiency of a financial institution. Embedded in the interest rate is profitability, monetary policy and efficiency (Were and Wambua, 2014).

In August 2013, Central Bank of Kenya slashed its lending rates to 8.5% but this was not the case with commercial banks as they maintained their lending rates at an average of 17%. The interest rate bill placing restrictions on interest rates was passed into law in September 2016, which states that (I) a cap on lending rates has been placed at 4% above the Central Bank base rate which currently stands at 10% and (II) a floor on deposit rates at 70% of Central Bank base rate therefore, bringing the interest rate spread to 7 % (Cytonn.com, 2017). Commercial banks are the main financial intermediaries in Kenya, capping of interest rates is said to have a negative impact on the economy. Due to these restrictions, financial inclusion has declined as banks shy away from giving out loans to clients they consider to be high risk, initially they covered such risks by increasing the interest rate margin (Business Daily.com, 2017).

Many articles have been written on the impact of interest rate caps on the financial performance of commercial banks in Kenya however, little research has been conducted on whether loan advancements by MFIs in Kenya has been affected by interest rate caps on commercial bank loans, if there has been a significant increase due to high risk borrowers previously locked out from accessing loans from commercial banks have turned to MFIs or if it remains unchanged. This paper investigated the extent to which loan advancements by MFIs in Kenya has been affected by interest rate restrictions imposed on commercial banks.

1.3 Purpose of the Study

The purpose of this study was to investigate whether the number of loan advancements by MFIs in Kenya changed following commercial banks interest rate caps.
1.4 Research Questions

1.4.1. Factors Considered while determining Interest Rates.
1.4.2 Evaluation of Microfinance Institutions Sources of Finance.
1.4.3 Evaluation of how Interest Rate Caps affects Financial Institutions.

1.5 Importance of the Study

1.5.1 Scholars

Commercial Banks are the main financial intermediaries in the market, many arguments have been made over interest rate restrictions and the negative effects on the economy especially where financial inclusion and subsequently economic growth is concerned. This study gives a better insight into how financial inclusion has been affected by the interest rate restrictions; if high risk clients have really been locked out from accessing credit facilities from commercial banks and if so, if there other institutions such as MFIs lending to high risk clients.

1.5.2 Policy Makers

Interest rate capping is a decision made at the macro-economic level. This study can be used by policy makers to investigate on its impact on the economy as finance is equal to economic growth. Also of concern is if a majority of clients perceived to be high risk don’t have access to credit facilities.

1.5.3 NGO’s

This study is significant for planning purposes of NGO’s or individuals interested in operating MFIs as it will give a better picture of the market in need of more MFI services.

1.6 Scope of the Study

The population consisted of 108 financial outlets comprised of: one representative of the umbrella body of cooperative societies in Kenya (KUSCCO) and 107 MFI outlets of the 13 regulated MFIs based in different geographical regions and cities, the study covered a sample of 86 representatives and involved the use of self-administered questionnaires for collection of primary data. Secondary data was also collected from the records and database of Central Bank of Kenya and World Bank. The time frame for data collection was 5 days from 9th Dec 2017 to 13th Dec 2017.
1.7 Definition of Terms

1.7.1 Microfinance

Microfinance generally refers to: loans, savings, insurance, transfer services and other financial products targeting low-income clients. These financial products are generally small in size and offered without the need for collateral (Reno-Weber, 2008).

1.7.2 COFEK

Consumer Federation of Kenya is an independent body that is self-funded, non-political and multi-sectorial with a commitment to consumer protection, anti-counterfeit campaigns, research, education and business rating on consumerism and customer care issues (Cofek, 2017).

1.7.3 Grameen Bank

Microfinance Bank founded in 1976 by Professor Mohammed Yunus was the first known Microfinance and is located in Bangladesh (Schreiner, 2003).

1.7.4 Interest Rate Margin

The spread between a bank’s interest revenues and interest expenses as a proportion of interest earning assets, also known as bank margin (Saunders and Schumacher, 2000).

1.7.5 CGAP

Consultative Group to Assist the Poor (CGAP) consists of 30 leading institutions with a common goal of advancing financial inclusion. Through consultation with policy makers, financial institutions and funders they develop innovative products targeting poor households (CGAP, 2017).

1.7.6 Net Interest Rate Spread

This is the same as profit margin. It is the difference between the average yield a financial institution such as a commercial bank receives on loans and interest expense it pays on its liabilities such as deposits (Ho and Saunders, 1981).

1.8 Chapter Summary

In September 2016, a bill was passed capping interest rates that could be charged by commercial banks on loans to 14%. The purpose of this study was to investigate if high risk borrowers locked out from accessing loans from commercial banks turned to MFIs for finance. The research questions have been designed to give a deeper insight into how
some factors come into play to affect the price of money (interest rates) and how restrictions on the same affects financial institutions. This give answers to the problem statement, on whether loans by commercial banks to individuals and SME’s reduced and if these individuals and SMEs locked out are using alternatives such as MFIs to access loans. The first research question is on the factors considered when determining interest rates, the second is on MFIs sources of finance and the third is on interest rate caps and how it affects financial institutions. The population comprised of 108 financial outlets comprised of: 107 MFI outlets of regulated MFIs and 1 umbrella body of cooperative societies in Kenya (KUSCCO) these are concentrated in different geographical regions and cities in Kenya. The time frame for collection of data was 5 days from 9th Dec 2017 to 13th Dec 2017. Chapter 2 covers the literature review providing more content that further explains the research questions.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This study covered in-depth the three research questions: (I) Factors considered while determining Interest Rates, (ii) Evaluation of Microfinance Institutions Sources of Finance, (iii) Evaluation of how Interest Rate Caps Affect Financial Institutions. This further gives a better insight into if interest rate restrictions placed on commercial banks on September 2016 led to changes on loan advancements disbursed by Microfinance Institutions.

2.2 Factors Considered while Determining Interest Rates
Financial intermediation is a crucial role played by financial institutions; this comprises channelling of surplus funds in the form of savings to individuals or organizations with deficient funds through lending. Banks set interest rates based on policy’s set by the Central Bank and also based on the yield curve of risk free rates. However, when determining interest rates a number of factors come into play these factors range from: operational costs, level of risk undertaken and regulatory requirements. Therefore, the gap between deposit and lending rates namely interest rate margin is created by financial institutions to compensate for operational and regulatory costs, market imperfection and credit and market risks undertaken (Valverde and Fernandez, 2009; Saunders and Schumacher, 2000; Brock and Suarez, 2000).

Researchers analyse the determinants of interest rate margin through: bank specific, industry specific and macro-economic factors. Net Interest margin is defined as the difference between lending and deposit rates in terms of average assets (Hiremath and Kumari, 2014). It is also called bank margin and has been defined by Hutpea and Kasri (2010) as the spread on revenue between bank assets and payments on bank liabilities as a proportion of average assets. Net interest margin (NIM) level is an indicator of financial efficiency; the effect of a high net interest margin is undesirable to an economy.

Considering the determinants based on these specifications namely: bank specific, industry and macro-economic variables the following sub-sections emerge: market power, volatility of market interest rates, capital adequacy requirements, segmentation in the industry, operation and regulatory requirements, macro-economic factors, bank risk
aversion and inflation rate. Factors affecting NIM is highly contextual and varies across regions depending on the afore-mentioned factors and also depending on whether NIM is being analysed from a developing or developed country perspective. Many researchers have adopted the model of analysing and explaining NIM developed by Ho and Saunders (1981) widely known as the dealership approach, this has been extended to incorporate other explanatory variables (Hutpea and Kari, 2010). According to Ho and Saunders (1981), factors influencing interest rate formation can be divided into three categories namely: Bank specific factors, Industry specific factors and Macro Economic factors.

2.2.1 Bank Specific Factors

Bank specific factors includes: operating costs, non-interest income, risks undertaken and off balance sheet exposure. Banks compensate for operating costs through interest revenue; this makes operation costs a significant factor in determining net interest income. Higher level of operations also results in high credit and interest rate risk (Hiremath and Kumari, 2014). According to Angbazo (1997), NIM is affected by type of operations and size of the bank; large banks are more prone to credit risk compared to interest rate risk. It has also been revealed that there is a negative relationship between NIM and non-performing assets, when non-performing assets increase, NIM is reduced this is done to reduce on defaults and encourage borrowing (Brock and Suarez, 2000; Angbazo, 1997). Bank risk aversion also affects NIM, the more risk averse the bank is the higher the NIM (Hiremath and Kumari, 2014). Off balance sheet activities also affects NIM, banks that focus on receiving non-interest income have a smaller NIM. Product diversification has been seen to reduce NIM through cross elasticity’s among bank products (Hiremath et al., 2014).

An important factor commercial banks have to consider in determining how much to lend is profitability (McLeay, Radia and Thomas, 2014). Interest rate charged by commercial banks on loans, also known as the price of money in addition to any fees charged determines the amount that households and companies will want to borrow. The higher the interest rate, the less that households and companies will borrow, the lower the lower the interest rates the more that household and companies will want to borrow (Mc Leay, Radia and Thomas, 2014).

Lending by commercial banks can also be constrained by risk; they face a number of risks that they have to safeguard themselves from. Some of the most discussed risks are
liquidity risk and credit risk. Liquidity risk is the risk that banks might not be able to meet
the demand on liquidation of client deposits (Imbierowicz and Rauch, 2013). To reduce
on liquidity risk, banks often make an effort to attract deposits that can be held for a
longer period of time, over which the client is compensated by earning a higher rate of
return on the deposit (Mc Leay, Radia and Thomas, 2014).

A number of empirical investigations by Angbazo (1997) affirm that bank margin or
rather interest rate margin is affected by high credit risk, liquidity risk and interest rate
risk. Credit risk is the risk that a borrower may default on loan repayments. In part, banks
can safeguard themselves against credit risk by having enough capital to absorb non-
performing loans. As loans will always involve some level of risk to banks, banks can
also safeguard themselves by passing the risk to the borrowers. This is done by estimating
the losses that could be incurred and including it when pricing the loan that is, when
determining the interest rate to charge. This component of the interest rate varies among
borrowers. It is normally higher while dealing with borrowers with a high loan to value
ratio (Mc Leay, Radia and Thomas, 2014). Inflation rate is also a factor that needs to be
considered, nominal interest rates generally follow the trend of inflation rate (Mullineux
and Murinde, 2014).

In addition, a number of other variables affect the interest rate margin, these are: risk
aversion, the size of bank transaction, greater variance of interest rate and bank
specialization (Hutapea and Kasri, 2010). Bank specialization can be used to determine
the interest rate spread as banks that specialize in lending can offer lower bank margins
this is because of high efficiency levels and experience acquired over the years (Valverde
and Fernandez, 2009).

2.2.2 Industry Related Factors

Competition can be deduced to be a bank’s capacity to set prices above marginal costs
and also a bank’s ability to compete effectively due to its market share. The more
restricted and segmented a market is results in a higher NIM (Saunders and Schumacher,
2000). Greater competition among banks results in higher efficiency and consequently
lower NIM (Berger et al., 2004). Non-interest bearing Central bank reserves imposed on
banks results in a higher NIM to compensate for the lack of interest on the reserves
(Boutin-Dufresne, Williams and Zawisza, 2014).
Market forces also constrain lending by commercial banks as they have to lend profitably in a competitive market (Grinblatt and Titman, 2016). A bank’s business model relies on charging higher interest rates on loans than interest payments they make on deposits. If a bank wants to give out more loans, they have to reduce their interest rates to be below what their competitors charge, if they want to increase their deposits they could as well increase the interest payments they make on deposits to be above what their competitors pay but all this has to be done with profitability in consideration (Mc Leay, Radia and Thomas, 2014).

Banks face uncertainties and costs since the demand for loans and supply of deposits occur in a stochastic fashion meaning that it occurs at different times. Banks have to manage these uncertainties by holding a short or long position in the short-term money markets as this risk exposes them to interest rate risks. Interest rate risk consequently affects the bank margin (Saunders and Schumacher, 2004).

2.2.3 Macro Economic Factors

Volatility of money market rates results in higher NIM to cover the interest rate risks faced (Entrop et al., 2015). GDP growth rate affects NIM as a higher GDP increases the net worth of firms leading to a lower NIM as credit risk reduces (Tan, 2016). Business cycles and regulatory trends also affect NIM (Bassett et al., 2014). The Central Bank implements monetary policy by setting the interest rate on bank reserves (Canzoneri et. al., 2015). Commercial banks are required by Central Bank to keep some of their money with Central Bank in the form of reserves; this is used for bank settlements (Carlson et al., 2017). In the case of Bank of England, the monetary policy committees set short term interest rates, specifically by setting the interest rates paid on Central Bank reserves held by Commercial banks.

Central Bank money is the ultimate means of bank settlement and broad money creation. Broad money is a measure of the total amount of money held by households and companies; it constitutes bank deposits and currency (King, 2015). Set interest rates on bank reserves influences interest rates in the economy including bank loans. The majority of money held by the public takes the form of bank deposits. Rather than control the amount of reserves in order to determine how much loans commercial banks can give out, Central Bank of England today typically implements monetary policy by setting the interest rates on the reserves. Central Bank reserves and loans are commercial banks
assets whereas deposits are liabilities to commercial banks (Mc Leay, Radia and Thomas, 2014).

The ultimate constraint on commercial bank lending is monetary policy. The Bank of England in this case can create a constraint by influencing the level of interest rates in the economy (Mc Leay, Radia and Thomas, 2014). The interest rate set on reserves has a meaningful impact on other interest rates in the economy (Gagnon and Sack, 2014). The interest rate that commercial banks can obtain from Central Bank reserves influences the rate at which they are willing to lend to other banks-interbank lending. Changes in interbank interest rates trickle down to a wider range of interest rates in different markets and at different maturities including the interest rates that banks charge borrowers for loans and interest payment on deposits (Mc Leay, Radia and Thomas, 2014).

2.2.4 Net Interest Margin in African Countries

Persistently high NIMS are common in developing countries. This is despite financial liberation and structural reform programs (Hiremath et al., 2014). In developing countries the stock markets are still under developed therefore making banks the main source of finance. Countries with underdeveloped financial systems have exhibited high bank profits and interest rate margins (Kunt and Huizinga, 2000). Banks profitability and interest rate is a good indicator of efficiency or lack thereof. Mullineux and Muvinde (2014) support the fact that financial systems in Africa are dominated by big commercial banks and capital markets that are at early stages of development. One of the benefits of financial liberation is narrowing of interest rate spreads; financial liberation is done with the understanding that it enhances competition and efficiency in the financial sector.

On the completion of a study on interest rate spreads across Africa, it was discovered that interest rates are influenced by crowding out effect by govt. borrowing, public sector deficit, discount rate, inflation rate, level of money supply, reserve requirement, level of economic development and population size. After a more recent study by Ahokpossi (2013), it was discovered that bank specific factors such as credit risk, liquidity risk and bank equity are important factors that affect interest rate margin however, they remain unaffected by economic growth. In the study of interest rate margins in Ghana Aboagye et al. (2008), affirms that NIM is a component of bank size, market power, inflation, staff costs, administrative costs and the bank’s risk aversion. On the other hand managerial efficiency decreases the net interest rate margin.
Nampewo and Munyambonera (2013) states that interest rate spread is positively related to the Treasury bill rate and non-performing loans. On the other hand, real GDP has a negative influence on the spread, meaning the higher the GDP the lower the interest rate margin. Kenya’s financial liberation occurred in the 1990s to allow for market determined interest rates however, even after decades of liberation interest rates remained high up to the time that interest rate capping took place. Empirical investigations shows that bank specific factors play a significant role in the determination of interest rate spread in Kenya, this is compared to macro economic factors such as real economic growth. Bank specific factors include: Operating costs, bank size, liquidity risk, credit risk as measured by the ratio of non-performing loans to total loans ratio, return on average assets, and interest income as a ratio of total income. All of the factors mentioned are associated with high interest rates except for liquidity risk. Liquidity risk is measured as bank’s liquid assets to total assets. On average, larger banks have higher spreads compared to smaller banks.

2.2.5 Microfinance Institutions Interest Rate Margins

Interest rates charged by MFIs on micro credit are generally higher than commercial banks. This could be attributed to higher costs incurred as a result of higher operational costs incurred while processing many tiny loans as opposed to collecting the same amount in a few large loans (Bryant and Kohn, 2013). Providing microfinance has been deemed a costly affair because of high information and transaction costs. One of the sources of finance for MFIs is commercial banks, the borrowings are done at market interest rates and operational and credit risks are also included as costs on lending (Waruiru, 2012). This also contributes to the high interest rates. Currently MFIs depend on donor funding to subsidise the high costs which has been argued to be costly for the poor households (Hermes and Lensink, 2007).

2.3 Evaluation of Microfinance Institutions Sources of Finance

MFIs have played a significant role in poverty alleviation as they are a source of finance for the majority of poor households who in normal circumstances could not have had access to financing. Donor funding is the main source of funding for MFIs as MFIs were initially started as a philanthropic acts to provide financing for low income earners. They started off as Non-Governmental Organizations (NGO) purely dependent on donor funding for survival. However, over reliance on donor funding has led to capital shortage,
forcing MFIs to turn to commercial sources of funding. Capital shortage has led to two main challenges: Operational deficits and less than optimal growth. However, some NGO-MFIs have since transformed and are now operating as banks or other kinds of regulated financial institutions (Espallier, Goedecke, Hudon and Mersland, 2016).

Transformation means movement to a shareholder ownership structure this does not necessarily mean that the NGO ceases ownership but can still be part of the shareholding. Transformation also comes with more regulations from government. The supporting arguments concerning transformation are many these includes: Less dependency on donor funding this is in order to gain sustainability, better governance structure and transparency, access to commercial funding and the possibility of having the ability to have savings deposits (Mersland, 2009). However, some scholars are against transformation as they argue that it derails MFIs from their main purpose, which is poverty reduction (Espallier et al., 2016).

Transformation of MFIs is driven by three main purposes: Organizational sustainability, introduction of new products and access to commercial funds (Frank, 2008). NGO’s have to mainly depend on donor funding for their sustainability however when they transform to financial institutions they are exposed to other sources of financing such as foreign investment or local investors. Transformation also comes with access to commercial loans, equity financing and bonds. International investors prefer the transparency that accompanies transformation, the transformation therefore gives MFIs a broader financial mix (Espallier et al., 2016).

Funk (2007) argues that MFIs need an average of USD 30 billion every year to reach the millions of poor people. This amount of funds cannot be met only by donor funding, making transformation a worthy move. Governments allow NGOs to only issue out credit but not to mobilize funds through savings; this is also another reason that transformation is a welcomed approach. Awan (2009) posits that savings is a cheaper source of funding and has a direct impact on the level of interest rate charged on loans. Even the poor need to have demand deposits or rather a safe way to save their incomes; they could use their savings to take advantage of economic opportunities or as a buffer against income shocks (Dupas and Robinson, 2013).

Transformation in order to gain organizational sustainability has enabled many MFIs to become sustainable; these are MFIs that could have otherwise become extinct (Mersland,
This is because regulation often comes with stringent laws and policies that are tasking to achieve but once done comes with a lot more benefits. The regulations forced by the government brings about streamlining of operational processes, more transparency, better management practices, better corporate governance structures and client protection (Espallier et al., 2016).

2.3.1 Donor, Government Grants and Soft loans

MFIs have played a significant role in poverty alleviation due to this; they have always received numerous funding from the donor community. Grants and soft loans are highly subsidized loans and are among the major sources of MFI financing, they are obtained from multilateral banks such a World Bank or Inter-American Development Bank and government aid agencies (Espallier et al., 2016). Grants and soft loans often come in limited dollar amounts together with spending restrictions. USAID, DFID, Ford Foundation and Women’s World Banking are the world champions in providing grants and soft loans. Donations to MFIs can be categorized as equity financing but in this instance the financier doesn’t require a return on investment but instead banks on a social return (Lafourcade, Isern, Mwangi and Brown, 2005).

2.3.2 Savings

Deposits are the primary source of financing for most financial institutions it doesn’t matter where in the world this financial institution is, savings account for a greater percentage of the financial institutions liabilities. Savings come in the form of demand deposits, call and time deposits and fixed deposits also known as certificate of deposits (Espallier et al., 2016). In such instances Central Bank regulation is important to safeguard client deposits (Lafourcade et al., 2005).

2.3.3 Private Sector Capital

Reliance on government subsidies and donor funding has greatly limited MFIs in terms of scope and scale of operational activities (Bernstein, 2014). Due to this, they are unable to undertake activities such as giving out loans to clients coming back for more loans and have a good credit standing due to lack of sufficient capital. In recognition to these limitations, MFIs have turned to other forms of financing that enable them to meet their financing needs and meeting the needs of a greater scope of poor households in need of financing. Commercial banks have emerged as a great source of financing for most MFIs.
In countries where capital markets are well developed MFIs have taken advantage of the financing opportunities available to them from these markets which come in the form of debt or equity financing (Espallier et al., 2016). Critics are fast to argue that external source of financing leads to an increase on interest rates charged thus driving the MFIs away from their main purpose which is poverty alleviation (Janda and Zetek, 2014).

Even though MFIs heavily rely on donor funding and retained earnings to fund their activities, equity financing accounts for only 25 percent of funding used by African MFIs. The main source of funding for African MFIs is demand deposits, this account for 72 percent of their entire funding. In comparison to MFIs all over the globe this is the highest recording, borrowings account for the least proportion of financing. Financial structure of MFIs across Africa does not vary however it varies depending on the type of MFI. Unregulated MFIs prefer donor funding as a source of financing, because of their non-corporate structures and unclear legal status. They are usually unable to attract borrowings from commercial banks and other lending financial institutions. African MFIs receive only 21 percent of foreign investment and only 6 percent of total dollar invested by international financial institutions and privately managed funds; this is in comparison to Eastern Europe and Central Asia region which receive 7 and 10 times more investment respectively (Espallier et al., 2016).

2.3.4 Retained Earnings

Internal source of financing from savings acquired over some period of time also called retained earnings is not a very common source for MFIs. However, it has a positive impact on the business activities of MFIs as it is has a positive and far reaching social impact due to cheaper loans (Janda and Zetek, 2014).

2.4 Evaluation of how Interest Rate Caps affect Financial Institutions

Interest rate controls can be traced back to the earliest economic times. Interest rate control exists in different forms the most common being usury laws and Defacto ceilings. Usury laws were first recorded in 2400BC India. In the West, a number of legal reforms were used to control interest rates dating back to the Roman Republic. The Old Testament also records interest rate controls as directives against profiting from loans have been documented in the books. American States such as Massachusetts and some North
American colonies closely followed English laws that restricted interest rates to a fixed percentage of a loan (De Muth, 1985).

Interest rate capping has been declining over the past several decades. However, the financial crisis that occurred between 2007 and 2008 had the most catastrophic impact since the great depression; it led to a meltdown of the financial systems and a global recession (Manzoor, 2017). It also awakened a debate on interest rate controls as a tool for safeguarding consumer interests. Access to credit is viewed as a significant contributor to economic development. After the financial crisis, Japan introduced more stringent laws on interest rates, Zambia and El Salvador imposed fresh interest rate caps on loans (Maimbo and Gallegos, 2014). An interest rate cap puts a limit on interest rate fluctuation, an interest rate cannot surpass a given ceiling (Business Dictionary.com, 2017).

There are various reason both political and economic that justifies the use of interest rate caps; this could be from supporting a sector in the economy where market failure exists or where greater financial resources are required. Market failure results from information asymmetry whereby, one party in a transaction has relevant information in a transaction but chooses not to disclose thereby leading to adverse selection and moral hazard (Dasgupta, 2000). Due to adverse selection, financial institutions are unable to differentiate between risky and safe clients. Due to adverse selection high risk individuals are improperly evaluated and they may not pay premiums to cover risk (Keane and Stavrunova, 2016). From a consumer perspective interest rate caps could be an important control by making loans available to an industry or by supporting a sector to the point it is able to sustain itself. Interest rates caps can also be used to protect consumers from financial exploitation as it allows them to have access to reasonably priced loans. Setting of interest rates could be whimsical or rather erratic, interest rate caps should allow a financial institution to cover its costs but not charge a higher interest rate than necessary (Maimbo and Gallegos, 2014).

Empirical evidence shows that interest rate ceilings led to a decline in consumer credit, this was the case with US states in the 1970s when usury laws were implemented leading to a constraint in consumer credit (De Muth, 1985). A firm will continue to provide a product or service as long as their market price covers the cost of supply. In a competitive market if firm A charges a higher price than firm B upon a customer discovering this,
firm A will be abandoned for firm B charging lower prices (Coase, 2012). A gap between supply and demand will be created whereby price controls are set below market clearing levels. Consumers demand more of the product while suppliers reduce supply. Suppliers and consumers will both try to close the gap, the most efficient way of closing the gap is by increasing the price. Suppliers may try to close the gap by increasing prices in ways that are not regulated such as by increasing fees and commission, this is done in order to cover costs. Consequently, this could be more expensive for the consumers compared to when no interest rate controls had been put in place (Quelch and Harding, 1996).

Interest rate controls on deposits led some commercial banks to other means of attracting customers; they would give toasters and coffee makers as free gifts. Suppliers could reduce the quantity and quality of products given as a measure of reducing costs. The quality of the regulated products may tremendously reduce, services may take longer and unregulated substitute products may be very pricey. They could reduce investment up to the point whereby their costs are equivalent to the regulated price. The very costly suppliers may withdraw from the market due to high relative costs (De Muth, 1985).

Where substitute unregulated products are available, the demand for these unregulated products will increase at the expense of the regulated products. Economic losses to consumers will take the form of pricey alternative products or services or poorer quality of service (DeMuth, 1985). Price control also leads to redistribution of income and wealth among consumers and suppliers (Hubmer, Krusell and Smith, 2016). This is because price controls usually lead to differential gains and losses for different groups of consumers. Example rent control leads to an unexpected gain to the consumers leasing and unexpected losses for the leaser. Price controls may harm those it was designed to protect and less well-off individuals. Similarly those financial companies providing unregulated substitute products may record windfall unexpected gain (DeMuth, 1985).

Some scholars argue that in countries where financial institutions such as commercial banks are dominant, capping of interest rates can be used to protect consumers (Bordo, Redish and Rockoff, 2015). Others are of a contrary opinion, they argue that it is an inefficient tool especially in the long run and that it reduces transparency and access to credit, and it also reduces product diversity and competition. A study conducted by Galindo, Schiantarelli and Weiss (2007) found that, reduction of credit controls led to efficiency in investment.
Because interest rate caps distort the market, financial institutions prefer to lend to clients with higher collateral, consequently reducing their lending especially to those with little alternative sources of finance (Johnson and Williams, 2016). Financial institutions may still remain profitable even after interest rate caps but the restrictions may reduce investments in new markets (Minsky, 2015). In spite of this, the Republic of Korea has been successful with using interest rate caps. In extreme cases where interest rate caps are set at unprofitable levels, financial institutions may withdraw their services from a market segment they consider expensive as they are unable to cover their costs, this is especially true for low income earners, who in most cases may be forced to borrow from loan sharks charging exorbitant prices (Maimbo and Gallegos, 2014).

Interest rates ceilings set too low or high could be detrimental as caps set too low may not cover fees and commissions, where interest rate definition is not clear financial institutions may charge fees and commission separately from interest rate giving the impression of compliance but in real sense this might not be the case as the consumer will still incur high costs on borrowings (Miller, 2013). Interest rates may be expensive where the cap is set too high, interest rates may drift towards the cap making the price of loans expensive (Helms and Reille, 2004; Miller, 2013). Interest rate caps may also reduce competition in the financial sector as some lenders may withdraw from the market. Less market competition consequently leads to a narrower product range and innovativeness. (Maimbo and Gallegos, 2014).

A recent study conducted in countries in East Asia and Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), South Asia (SA) and Sub-Saharan Africa found that, interest rate ceilings were implemented with the aim of protecting consumers from financial exploitation, and to increase access to credit facilities. Most countries engage in interest rate capping to protect consumer interest. Greece introduced interest rate capping to stop the abuse that financial institutions were engaging in due to unregulated freedom; Estonia used interest rate capping to reduce over indebtedness, Netherlands to reduce the risk taking behaviour of lenders. Zambia introduced interest rate restrictions to reduce over indebtedness and also to make credit facilities available to low income earners (Maimbo and Gallegos, 2014).
2.4.1 Types of Interest Rate Caps

According to Helms and Reille (2004), a regime can adopt one of the three forms namely: Usury limits, De Facto ceilings and interest rate controls. In most countries Central Banks are the regulating body mandated to regulate and control interest rates through set monetary policies.

Japan’s financial system was highly regulated before the 1980s. Interest rates used to be below market levels; the market was characterized by limited competition among commercial banks, declining corporate borrowing and distorted fiscal situation. Japan also liberated interest rate deposits. It decided to liberate its markets with the view of: increasing access to financial products, increasing the availability of financial instruments and liberating the operations of banking institutions so that, it should be no different from the way security dealers operate. Market determined rates consequently enlarged the deposit pool, bank credit also increased, new and innovative financial products emerged (Liao and Tapsoba, 2014).

Korea liberated its interest rates on interbank money transactions and prime commercial paper in the late 1980s, a little later than Japan. Apart from interest rate liberation, Korea also privatized government owned banks and stopped its direct control on bank loans. Korea’s monetary policy was focused on having direct control on financial institutions, financial reforms took place after disintermediation took place, and financial institutions were more focused on off balance sheet activities. Liberation led to the deepening of the financial markets as non bank financial institutions came into play, National savings increased as more innovative products were offered and better interest rates on deposits was introduced into the market (Liao and Tapsoba, 2014).

Financial reforms in Korea took place in the late 1980s, a little later than in Japan. Before that, Korea tightly regulated its financial markets to support their export-led growth strategy. The regulation distorted resource allocation and led to financial disintermediation toward off balance-sheet activities. Monetary control based on direct instruments was no longer effective. Reforms included liberalization of interest rates on interbank money transactions and prime commercial paper; privatization of government-owned commercial banks; and relaxation of direct controls on bank credit. Evidence
shows that liberating of interest rates boosts the effectiveness of indirect monetary policy and the importance of using interest rates as a price signal (Liao and Tapsoba, 2014).

2.4.1.1 Usury Limits

Usury limits are legislated caps imposed on interest rates these are some of the oldest forms of market regulation they date back to ancient times and have been used by a significant number of countries to regulate their credit markets (Rigbi, 2013). Among all other legal instruments that can be used to control interest rates usury laws are the most common, other legal instruments that can be used includes consumer credit laws (Maimbo and Gallegos, 2014). Usury laws gives authority to government bodies to set the limit on interest rates chargeable by a financial institution on credit facilities (Maimbo and Gallegos, 2014; Benmelech and Moskowitz, 2010). In many countries, it is at the discretion of the Central Bank to create usury laws but in some countries it is the mandate of the Minister of Finance or the courts. Scholars for usury laws posit that they reduce interest rates charged on loans as they restrict lenders from exercising their market power. They also point out that restrictions imposed by usury laws protect naive borrowers from financial exploitation as the likelihood of default is higher in a free market (Benmelech and Moskowitz, 2010).

Those against usury laws argue that higher risk borrowers are excluded from accessing credit facilities and they are also excluded from the chance of developing a credit history, a credit history is important for future borrowings at a lower rate (Rigbi, 2013). Usury laws were adopted from already established English usury statutes into the American colonies. The rise of loan sharks in the 19th century instigated the evolution of lending into organizations such as credit unions, these were considered non-predatory but credit unions locked out many borrowers considered as high risk. Higher caps set on interest rates are considered to be profitable to a lending institution as higher caps may result in the financial inclusion of borrowers who are considered to be of higher risk as risk can be considered when determining the interest rate to charge (Benmelech and Moskowitz, 2010).

In addition, because the identity of the borrower is not the only factor in consideration when determining the riskiness of a loan, other factors such as the size of the loan comes into consideration, higher caps may cause a borrower to request for larger loans. Higher
caps may increase the probability of loan defaults, particularly if the caps were protecting naive borrowers; with the caps increased it could be difficult for naive borrowers to service their loans (Maimbo and Gallegos, 2014). Where lenders have market power, usury laws could decrease interest rates charged by shifting the market towards the price that would have been obtained given lack of market power. Scholars against usury laws argue that the reason behind high interest rates charged on some borrowers is not because of the market power of the financial institutions under scrutiny, but because lenders will only lend if it is profitable to do so. They argue that interest rate caps prevent some borrowers from accessing credit and that borrowers locked out will seek for alternative sources of credit which may be loan sharks or other dubious lenders (Benmelech and Moskowitz, 2010).

2.4.1.2 DE Facto Ceilings

De Facto ceilings are used in some countries where usury laws are not utilized. Studies by Owens and Schreft (1995) document a variety of methods used by policymakers and legislators to reduce credit flow and borrowing in the market. One of the methods used Defacto ceilings, in the late 1960’s and 1970s Defacto ceilings led to a lower spread between bank lending rates and the federal funds rate whenever the federal funds rate rose, this in turn led banks to reduce loans or rather to tighten their standards. Findings also show a strong negative relationship between lower spreads and standards over the late 1960’s and early 1970's. Political pressure of judicial activism is used to lower interest rates. De Facto ceilings have been used in several countries namely: Dominican Republic, Brazil and China. In Pakistan interest rates are kept low though unofficially through government programs, in Vietnam state owned banks give subsidized credit facilities (Maimbo and Gallegos, (2014).

2.4.2 Methods of Interest Rate Capping

Capping of interest rates be done in three different methods: the effective interest rate can be capped, or the annual percentage rate or the nominal interest rate. Capping of the effective interest rate involves defining an interest rate ceiling that covers all the financial costs meaning the interest rate itself inclusive of fees and commission. It is expressed as a percentage of the loan utilized during each payment period. We also have the Annual Percentage Rate(APR) ,this is the effective interest rate multiplied by the number of
periods in a year, as effective interest is mentioned where APR is concerned then, it includes all fees and commissions. Lastly, we have the nominal interest rate, it includes the loan to be paid on a contract does not include fees and commission. Nominal interest rate is rarely used as an interest rate capping method (Maimbo and Gallegos, 2014).

2.4.3 Approaches Used for Capping Interest Rates

There are two approaches used when capping interest rates namely: absolute cap or a relative cap. An absolute cap is a fixed nominal rate. A relative cap is calculated against a benchmark which could either be endogenous meaning a reference rate in the credit market or exogenous this is such as the interbank refinancing rate. Countries practising absolute cap rates are such as: Egypt with an absolute cap of 7 percent on commercial transactions and Greece at 6.75 percent on non-bank institutions. Relative interest rate ceilings have been found in 32 countries most of them located in Sub Saharan Africa and Western Europe and LAC (Maimbo and Gallegos, 2014).

2.4.4 Empirical Evidence on the Effects of Interest Rate Capping

Empirical evidence on interest rate caps has shown that it mostly has a negative impact. The negative association between interest rate caps and financial depth has been witnessed in 18 countries found in Latin America between the years of 1980 and 2008. Example in Nicaragua, interest rate ceilings caused Microfinance Institutions to reduce lending especially in rural areas because of high risks and operational costs. Fees and commission was also increased so as to enable them cover their costs. Interest rates caps imposed in Colombia, blocked small firms from receiving loans due to the high operational costs incurred on processing their loans. While relaxing of interest rate caps on loans led to an increase on micro credits, this was documented by (Porteus, Collins and Abram, 2010).

At the United States in 1980’s legal development leading to relaxing or abolishment of interest rate ceilings occurred concurrently with growth in consumer credit, this is especially due to higher interest rates earned on deposits. Practically all states controlled interest rates on consumer credit through the 1970s, between 1979 and 1985 interest rate ceilings were relaxed in about eighteen states. Relaxation of interest rate ceilings seemed to have been brought about by other changes in financial services. This could have been as a result of the computer era which led to a significant drop in financial costs due to
cheaper costs incurred in storing, processing and transmitting information; this also led to new innovative financial products (De Muth, 1985).

A study conducted in 18 countries in Latin America showed a negative relationship between interest rate capping and financial depth. Restrictions on interest rates imposed on Microfinance Institutions in Nicaragua led to reduced lending especially in rural areas due to high risks and operational costs. Lending to small firms reduced in Colombia also due to restrictive lending rates and the high costs incurred processing loans to SMEs (Helms and Reille, 2004). In Kenya, IMF asserts that interest rate ceilings that came into force in September 2016 is hurting the economy, private sector credit growth rate fell to a paltry 4.3 percent this is in comparison to Dec 2016 when it was more than 17 percent. This was as captured from Central Bank data. IMF further claim that the caps is hurting financial inclusion and has severely affected access to credit by small and micro enterprises consequently reversing economic growth. However critics of Commercial banks, COFEK claim that banks have formed a cartel to blackmail members of parliament to reverse the law. Through Kenya Bankers Association the banking lobby of Commercial banks, banks threatened to reduce lending to the public and focus more on treasury bills and government borrowing which they consider to be more profitable and less costly due to the lower risks involved (Business Daily.com, 2017).

Banking crisis may also occur banking crisis occurs when disintermediation takes place in the financial sector; it may lead to high unemployment rates and low growth rates. This is because of low investment, consumption and credit levels (Sachs, Tornell and Velasco, 1996).

2.5 Chapter Summary

Chapter 2 has given a deeper insight into all the three research questions. Factors considered while determining interest rates may result in a high or low interest rate, a high interest rate margin could reflect higher profitability and stability, this can be used to increase capital levels or to safeguard against economic shocks; on the contrary, it may also be a reflection of inefficiency and exploitation. A low interest rate margin could reflect a highly competitive market and efficiency. Also covered was MFIs sources of finance, source of finance is a liability to an institution and might have to be paid back to the lender together with an interest charge depending on the agreement, this cost is
considered when interest revenue is determined and may affect interest rate charged on loans. Interest rate capping has both positive and negative implications; it could be used to promote operational efficiency as well as for consumer protection. On the other hand it may cause disintermediation of financial institutions especially where the affected financial institutions crowds out private lending more so for clients considered to be high risk, some financial institutions may close shop if they are unable to cover their costs and this also affects the efforts made of financial inclusion and depth. Chapter 3 covers the research methodology and design that was used to gather and analyse data.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes various methods with which the research study was carried out. It represents the research methodology and design used to carry out the study which includes the data collection procedures. The chapter elaborates the research design, the population under consideration and sampling design. It also examines the data collection procedures and data analysis techniques. The study used both qualitative and quantitative data to adequately examine interest rate capping effects on MFIs.

3.2 Research Design
A research design is an arrangement or a structured system used to solve a challenge. It provides guidance to a procedure for carrying out a standard research that should give reliable and unbiased results (Cooper and Schindler, 2003). Research design can also be described as an arrangement of conditions relevant to a study; it is the conceptual framework within which a research is conducted. The framework comprises of the following: the purpose of the study, the reason for conducting the study, where the study be conducted, the type of data required for the study, where the data can be found, the periods of time for conducting the study, the sample design, techniques of data collection to be used and how the data will be analysed (Kothari, 2004).

The study used causal research as its aim was to investigate whether loan disbursements by MFIs were affected by interest rate caps on commercial bank loans. Causal research has been defined as an investigation into a challenge that aims to find the effect of one variable on another (Miller and Salkind, 2002). Causal research answers the question why, it argues that variable Y is affected by variable X (De Vaus, 2001). In this research, the X variable which is the dependent variable is loan disbursements by MFIs and the Y variable which is the independent variable is interest rate caps.

3.3 Population and Sampling Design
3.3.1 Population
A population consists of the total collection of individuals that a researcher considers relevant to the study (Cooper and Schindler, 2003). The target population in this study was 108 representatives consisting of 13 regulated MFIs with a total of 107 outlets and
the umbrella body for cooperative societies in Kenya (KUSCCO) together making a population of 108. The primary data was obtained through the use of self-administered questionnaires that were provided to relevant credit, finance and operations officers. Secondary data in the form of quantitative data was obtained from the databases of Central Bank of Kenya and World Bank.

3.3.2 Sample Design

A sampling design is concerned with the method used for selecting the elements to be observed in a research. It is a guideline for obtaining a sample from a population. It refers to the technique or the procedure the researcher will use to select the respondents to be included in a sample. It may also involve identifying the number of elements that should be included in a sample (Kothari, 2004).

3.3.2.1 Sampling Frame

A sampling frame is a list of all individuals in a population under consideration (Zikmund and Babin, 2012). These include all regulated micro financial institutions in Kenya and cooperative societies. The objective of this study was to examine the effect of commercial bank interest rate caps on the disbursement of loan advances by micro financial institutions. The sources of the sampling frame were all relevant staff in the 108 outlets comprising of credit officers, finance and operations officers.

3.3.2.2 Sampling Technique

A Stratified sampling technique was used to select a subset of population under consideration in order for the sample to represent the features of the population (Zikmund and Babin, 2012). The population was divided into strata, from which a random sample was drawn from each stratum (Saunders et al., 2003). The population in this study was divided according to the job designation of the representatives in the financial institutions; the representatives with the ability to answer the questions according to their job designation were selected to fill in the questionnaires. In each financial institution, a random sample of a qualified representative was taken to represent the stratum.

3.3.2.3 Sample Size

A sample size is to be selected to take care of measurement and random errors and still represent the actual population and data should also be normally distributed. To calculate
the sample size, the following formula was used. Yamane (1967) provided a simplified formula to calculate sample size.

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

Where, $N$ is the population size, $e$ is the level of precision.

$$n = \frac{108}{1 + 108(0.05^2)}$$

$$n = 86$$

From this calculation, the researcher sampled 86 representatives from the population.

3.4 Data Collection Methods

Both primary and secondary data was collected for use in this study. The main data collection instrument used in this study was a structured questionnaire. A questionnaire refers to an instrument that is used for guiding a respondent on the information required (Mugenda and Mugenda, 2003). Structured questionnaires can be used to gather data from respondents with tight schedules. Steps undertaken to develop the questionnaire included: determining the sampling group, the objectives of the study, constructing and administering the questionnaire. The questionnaires were delivered to respondents via email, also by dropping and picking from the respondents. The structured questionnaire consisted of the following four components: Background information, factors considered while determining interest rates, microfinance sources of finance, interest rate capping on commercial bank loans and its impact on the number of loans by MFIs. A five point likert scale was used to collect information from the respondents that could be analysed using descriptive statistics.

3.5 Research Procedures

A research procedure includes all the steps taken from the start of data collection to the time of data collection. Questionnaires were designed and pre-test done to enable efficiency checks and also to include important questions if they were omitted and also to delete irrelevant questions. The findings from pre-test were reviewed and final questionnaire was designed. Before start of data collection, the researcher asked for
permission to carry out research from authorities concerned in the research and also requested for an official letter from United States International University for identification and confirmation by the respondents that the information gathered is for academic purpose. The questions in the questionnaire were structured to avoid leading questions. The information given by respondents was treated as confidential in order to give the respondents anonymity. The study also collected secondary data from the records and databases of World Bank and Central Bank of Kenya.

3.6 Data Analysis Methods
Data from questionnaires was coded and data entry into SPSS was done. Regression analysis was done to determine relationship between variables and descriptive statistics using frequency distribution, percentages and mean was done to give a better understanding to the data collected. Tables and figures were used to display detailed information. Interpretation of results was done to give meaning to statistical results obtained from regression analysis and descriptive statistics.

3.7 Chapter Summary
This chapter has elaborated research methods that were used in this study, from the target population, sampling design and sampling technique to data collection and analysis methods. Both qualitative data from primary sources and quantitative data from secondary sources was analysed to give more conclusive information. Chapter 4 presents the findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter contains a detailed analysis of both primary data and secondary data, using techniques outlined in chapter three. The main objective of the research was to investigate the impact of commercial bank interest rate capping on the number of loan advances given by microfinance institutions, given that interest rate capping did not affect microfinance institution interest rates but the expectation was that, private sector lending was to reduce in commercial banks and increase in other financial institutions such MFIs. The study was done to give answers to the following research questions (I) the factors considered in determining interest rates (ii) Evaluation of Microfinance Institutions Sources of Finance and (iii) Evaluation of how Interest Rate Capping affects financial institutions.

4.1.1 Response Rate

The population consisted of 108 financial institutions, comprising of 107 outlets of the 13 regulated MFIs and 1 representative of KUSCCO- the umbrella body of cooperative societies in Kenya. The researcher calculated a sample of 86 constituting, 85 outlets of 13 regulated MFIs and one representative of KUSCCO. Questionnaires were used to collect data, 19 respondents did not respond and therefore a sample of 67 was used for data analysis this was used in combination with secondary data from the databanks of World Bank and Central Bank of Kenya.

![Figure 4.1: Response Rate](image-url)
4.2 Demographic Factors

The research also captured the demographic information of the respondents the results were as follows:

4.2.1 Respondents Gender

The respondents interviewed consisted of both sexes. The numbers of men interviewed were slightly more in comparison to the women not for any known reason but it seems that the number of men working in financial institutions could be slightly higher than the number of women. 43% of respondents were women while 57% of the respondents were male.

![Respondents Gender](image)

**Figure 4.2: Respondents Gender**

4.2.2 Education Level of the Respondents

Figure 4.3 Clearly shows that the respondents interviewed have attained a higher level of education with 80% of the respondents having attained university undergraduate education, 16% having attained post graduate education and 4% attained college education.
4.2.3 Number of Years Worked in the Institution/Organization

From figure 4.4, the respondents who have worked for less than 3 years constitute 46.27%, while the respondents who have worked for 3 to 9 years are the majority representing 50.75% of the respondents. Respondents who have worked for more than 9 years are the least with respondents of 9 to 12 years and above 12 years are 0% and 2.99% respectively.

Figure 4.4: Number of Years Worked in an Institution
4.3 Interest Rate Determination

The first research question was concerned with finding out which factors are considered while determining interest rates to charge on loans.

4.3.1 Factors Considered while Determining Interest Rates

Table 4.1 Represents data obtained from respondents concerning different factors considered while determining interest rates also included are their frequencies. From the respondents interviewed, the respondents who said that collateral is extremely important is 29.11% this is in comparison to 9.68% of the respondents who said that it is slightly important. We conclude that collateral security with a mean of 0.239 is extremely important when determining interest rates to charge on loans, this is followed by risk (this can be combined with other factors related to risk such as collateral, amount of loan, duration of lending, customer profile and bank statements) with a mean of 0.124. In total the mean of risk and factors related to risk is at 0.805.

Table 4.1: Responses on Factors considered while Determining Interest Rates

<table>
<thead>
<tr>
<th>Factors Considered While Determining Interest Rates</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of lending</td>
<td>13</td>
<td>11.5</td>
<td>0.115</td>
</tr>
<tr>
<td>Amount of Loan</td>
<td>14</td>
<td>12.39</td>
<td>0.124</td>
</tr>
<tr>
<td>CBK rate</td>
<td>4</td>
<td>3.54</td>
<td>0.0354</td>
</tr>
<tr>
<td>Collateral security</td>
<td>27</td>
<td>23.89</td>
<td>0.239</td>
</tr>
<tr>
<td>Risk Involved</td>
<td>14</td>
<td>12.39</td>
<td>0.124</td>
</tr>
<tr>
<td>Bank Statements</td>
<td>12</td>
<td>10.62</td>
<td>0.106</td>
</tr>
<tr>
<td>Market Forces</td>
<td>13</td>
<td>11.5</td>
<td>0.115</td>
</tr>
<tr>
<td>Profitability</td>
<td>5</td>
<td>4.42</td>
<td>0.044</td>
</tr>
<tr>
<td>Type of Loan</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Customer Profile</td>
<td>11</td>
<td>9.73</td>
<td>0.097</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>113</strong></td>
<td><strong>93.73</strong></td>
<td><strong>0.097</strong></td>
</tr>
</tbody>
</table>

4.3.2 Level of Importance on Factors Considered while Determining Interest Rates

On the level of importance on the factors considered while determining interest rates a 5 point Likert scale was used. The respondents were to either say if a factor was extremely important or least important where, 1-extremely important, 2-slightly important, 3-Neutral, 4-slightly unimportant, 5-extremely unimportant.
The percentage of respondents who said that risk is extremely important is 17% while 3.23% said that it was slightly important. The percentage of respondents who said that market forces was slightly important was more at 19.35% this is in comparison to 7.59% of the respondents who said that market forces was extremely important. The number of respondents who said the collateral security is extremely important is at 28% this is in comparison with the 9% of the respondents who said that it was slightly important.

Figure 4.5: Level of Importance on Factors Considered while Determining Interest Rates

4.4 Evaluation of Microfinance Sources of Funding

Sources of finance is the second research question, the channel of funding is important as sources of finance also affects the price of loans as some sources of funding require interest payments on the amounts borrowed.

4.4.1 Channels of Funding

From table 4.2, client deposits strongly feature as a main source of funding with 51.16% of the respondents saying that client deposits are their main source of financing this is also represented by a mean of 0.51. Shareholding closely follows client deposits with 30.23% of the respondents saying that their source of financing comes from shareholding; this is also represented with a mean of 0.302. While 15.12% of the respondents said that they are funded by donors. 3.49% said that they receive their financing from retained
earnings. Many of the microfinance institutions initially started as Non-Government Institutions, these were primarily funded by donors, but this source of funding has proved not to be reliable and could eventually lead to closing shop thus many MFIs opted to exploit other sources of financing.

Table 4.2: Sources of Funding

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits</td>
<td>44</td>
<td>51.16</td>
<td>0.51</td>
</tr>
<tr>
<td>Share Holding Funding</td>
<td>26</td>
<td>30.23</td>
<td>0.302</td>
</tr>
<tr>
<td>Donor funding</td>
<td>13</td>
<td>15.12</td>
<td>0.151</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>3</td>
<td>3.49</td>
<td>0.035</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Cheapest Source of Funding

From the analysis, client deposits is the cheapest source of financing 62.75% of the respondents chose client deposits as the cheapest source of financing. 19.61% of the respondents chose share holder capital as the cheapest source of funding, 15.69% of the respondents chose donor funding as the cheapest source of funding while 1.96% of the respondents chose retained earnings as the cheapest source of funding. Interest rates charges on retained earnings are derived at by considering the opportunity cost of an alternative investment.

Figure 4.6: Cheapest Sources of Funding
4.4.3 Whether Interest Rate Charges on Clients Borrowings are subsidized

Microfinance Institutions normally charge very high interest rates on loans this is because of the high administrative costs incurred while processing micro loans. We also recall that Microfinance Institutions were purposely initiated to serve low income earners who might not have alternative means of financing. Subsidizing interest rates is a way of reducing the risk of loan default. 71% of the respondents agreed that interest rates on loans are subsidized while 29% of the respondents said they are not subsidized.

![Percentage Of Responses On Whether Interest Rate Charged Is Subsidized Or Not](image)

**Figure 4.7: Subsidization of Interest Rates Payments on Loans**

4.4.4 MFI Interest Payments on Sources of Capital

As earlier discussed Microfinance Institutions receive their capital from many different sources, this could either be from: Client deposits, retained earnings, Share capital or donor funding. From some of the sources of capital such as client deposits, retained earnings and share capital, interest charges are paid on such sources to the investors. Financial institutions raise the funds for interest payments by passing downwards the interest payments to its loan borrowers. 87% of the respondent’s agreed that interest payments are passed to loan borrowers, while 13% of the respondents do not.
4.5 Evaluation of How Interest Rate Caps Affects Financial Institutions

Research question three on the impact of interest rate caps on financial institutions wishes to reveal how interest rate caps affected commercial banks loans disbursements as well as how microfinance institutions were affected, the researcher used both primary and secondary data to reveal the effects.

4.5.1 Affordability of Loans after Interest Rate Caps

From the table 4.3 we can decipher that 79.10% of the respondents agreed that loans were more affordable after interest rate capping, 19.4% of the respondents said that loans were not more affordable after interest rate capping while 1.49% of the respondents could not agree or dispute.

Table 4.3: Affordability of Loans after Interest Rate Caps

<table>
<thead>
<tr>
<th>Do you consider loans after interest rate caps affordable to your clients?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>53</td>
<td>79.10</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>19.40</td>
</tr>
<tr>
<td>others</td>
<td>1</td>
<td>1.49</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>
4.5.2 Evaluation of Number of Loan Requests after Interest Rate Caps

From table 4.4 it is indicated that 76.12% of the respondents said that loan requests increased after interest rate capping while 23.88 % of the respondents said that loans requests did not increase after interest rate capping.

Table 4.4: Evaluation of Number of Loan Requests after Interest Rate Caps

<table>
<thead>
<tr>
<th>Did the number of loan requests increase after interest rate capping</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51</td>
<td>76.12</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>23.88</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.3 Evaluation of Loan Advancements after Interest Rate Caps

From Table 4.5, we can decipher that 50.75% of respondents from the microfinance institutions indicated that lending increased while 49.25% of the respondents said that lending did not increase.

Table 4.5: Evaluation of Loan Advancements after Interest Rate Caps

<table>
<thead>
<tr>
<th>Did Your Institution increase lending after Interest rate capping?</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>34</td>
<td>50.75</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>49.25</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.4 Evaluation of Revenue after Interest Rate Caps

From the table 4.6 we can see that 65.67% of the respondents indicated that their revenue increased after interest rate capping while 34.33% of the respondents indicated that their revenues remained unchanged after interest rate capping.
Table 4.6: Evaluation of Revenue after Interest Rate Caps

<table>
<thead>
<tr>
<th>After interest rate capping, did your organization’s revenue increase?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>44</td>
<td>65.67</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>34.33</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.5: Evaluation of Microfinance Institutions Markets after Interest Rate Caps

Microfinance Institutions recorded the lowest percentage increase in loan disbursements between 2015 and 2016 at 3% increase (CBK data, 2018). Concern was if they had also reconsidered their markets maybe due to more favourable opportunities. From analysis of Table 4.7, it is indicated that 73.13% of the respondents did not reconsider their market while 23.88% indicated they reconsidered their market; 2.99% were not sure if they did or not.

Table 4.7: Evaluation of Microfinance Institutions Markets after Interest Rate Caps

<table>
<thead>
<tr>
<th>After interest rate capping, did your organization reconsidered its market?, i.e. opted to focus more on Government lending and less on individuals</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16</td>
<td>23.88</td>
</tr>
<tr>
<td>No</td>
<td>49</td>
<td>73.13</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.99</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.6 Private Sector Credit

From the trend line in figure 4.9, the figure indicate that Private Sector Credit has been on an increasing trend from 1961 when it was at 12.361% of GDP, by early 2014 it was at 34.07% of GDP it then increased to 34.32% of GDP by early 2015 by end of 2015 early 2016 it had declined to 32.81%. Figure 4.10 clearly shows unabated decline in private sector credit from August 2015 to August 2017.

**Figure 4.9: Private Sector Credit**


**Figure 4.10: Decline in Private Sector Credit**

**4.5.7 Average Advances from Commercial Banks to Government**

From figure 4.11 we can decipher that there has been a sharp increase in average advances from commercial banks to government from 2015 at a value of 2567.96 by the end of 2017 advances from commercial banks to government had increased to a value of 9331.97.

Figure 4.11: Average Advances from Commercial Banks to Government

4.5.8 Average Net Advances Made by Microfinance Institutions between 2011 and 2016

From table 4.8 we see that net advances made by MFIIs has been on a steady increase from 2011 to 2016, between 2014 and 2015 the net advances slowed down to 16% this is in comparison with the increase between 2013 and 2014 which was at 43%. The lowest increase was recorded between the years 2015 and 2016 which indicated an increase in net advances by 3%.

Table 4.8: Average Net Advances made by Microfinance Institutions from 2011 to end of 2016.

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2015</th>
<th>Percentage Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount in (m)</td>
<td>47,047</td>
<td>45,564</td>
<td>3%</td>
</tr>
<tr>
<td>Year</td>
<td>2015</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>Amount in (m)</td>
<td>45,564</td>
<td>39,184</td>
<td>16%</td>
</tr>
<tr>
<td>Year</td>
<td>2014</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Amount in (m)</td>
<td>39,184</td>
<td>27,477</td>
<td>43%</td>
</tr>
<tr>
<td>Year</td>
<td>2013</td>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>Amount in (m)</td>
<td>27,477</td>
<td>19,908</td>
<td>38%</td>
</tr>
<tr>
<td>Year</td>
<td>2012</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>Amount in (m)</td>
<td>19,908</td>
<td>16,060</td>
<td>24%</td>
</tr>
</tbody>
</table>
4.5.9 Relationship between Lending Rates and Loan and Advances Made by Commercial Banks

A simple linear regression was done to establish the relationship between lending rates and loans and advancements generated by commercial banks. The results were as follows:

Table 4.9 Relationship Lending Rates and Loan and Advances Generated by Commercial Banks

<table>
<thead>
<tr>
<th>Variables Entered/Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Dependent Variable: loan_and_advances_by_commercial_banks
b. All requested variables entered.

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), lending rates

<table>
<thead>
<tr>
<th>ANOVA&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

a. Dependent Variable: loan_and_advances_by_commercial_banks
b. Predictors: (Constant), lending rates

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>lending rates</td>
</tr>
</tbody>
</table>

a. Dependent Variable: loan_and_advances_by_commercial_banks
Coefficient of correlation between dependent variable loans and advances from commercial banks and independent variable lending rates shows a negative weak correlation. The coefficient correlation between lending rates and loans and advances is -0.321 meaning that as one variable increases the other variable reduces. Correlation coefficient of 1 shows a perfect strong correlation whereas when it is 0 this means that there is no correlation.

The $R^2$ of the regression is 0.103 meaning that the model explains 10.3% of the dependent variables, 89.7% of the dependent variable is explained by factors outside the model but when degrees of freedom is taken care of the model explains 5.6 % of the dependent variable.

Model estimation

$Y = 1498993.461 - 42063.038x + e$

A unit change in X results to a decrease in Y by 42063.038, ceteris paribus.

$R^2$ of the model is 0.103 meaning that the model explains 10.3% of the variation of the dependent variable and if degree of freedom is taken care of, as obtained from adjusted $R^2$ squared of 0.056, the model explains 5.6% of the total variations in the model. About the overall significance of the model, the F statistic is 2.179 and p value of 0.156, indicating that at 5% significance level, the model is significant. About the significance of the parameters at 5% the constant term is not significant, while the coefficient of lending rates is significant at 5% significance level.

4.6 Chapter Summary

In this chapter, data analysis was carried out based on 67 questionnaires and secondary data derived from World Bank and Central Bank of Kenya data banks. The first section was based on demographic information of the respondents the other remaining sections was based on the research questions. (I) Factors Considered while Determining Interest Rates (ii) Evaluation of Microfinance Institutions (MFIs) Sources of Finance and (iii) Evaluation of how Interest Rate Capping affects Financial Institutions. Chapter 5 is on discussions, conclusions and recommendations based on the study.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the summary, discussions, conclusions and recommendations based on the three research questions: (i) Factors Considered while Determining Interest Rates (ii) Evaluation of Microfinance Institutions (MFIs) Sources of Finance and (iii) Evaluation of how Interest Rate Capping affects Financial Institutions.

5.2 Summary

The purpose of this study was to examine how the interest rate caps imposed on commercial bank loans affected loans and advancements generated by microfinance institutions. This study was guided by three research questions namely: (i) Factors Considered while Determining Interest Rates (ii) Evaluation of Microfinance Institutions (MFIs) Sources of Finance and (iii) Evaluation of how Interest Rate Capping affects Financial Institutions.

The research methodology used is causal explanatory as the study was concerned with understanding the relationship among variables. Stratified sampling technique was used to identify and collect data from respondents, SPSS was used to code and analyse data. Regression analysis was used to determine relationships between variables and descriptive statistics using frequency distribution, percentages, mean was carried out. Pie charts and graphs were also used to display detailed information. Lastly, interpretation of the results was done to give meaning to statistical results obtained from regression analysis and descriptive statistics.

Ten factors were identified as crucial for determining interest rates these factors are: duration of lending, size of loan, CBK interest rates, risk involved, client bank statements, market forces, and customer profile, type of loan, collateral security and profitability. Type of loan, customer profile, client bank statements, and size of loan and duration of lending can all be combined together with risk involved as they are all concerned with risk. From the analysis on the factors considered it was revealed that among all other factors considered collateral is the most important this is represented by a mean of 0.239, this is the highest mean so far. Risk follows collateral as an important factor, this is
represented by a mean of 0.124 this is second highest mean. Most of the respondents were of the view that the amount (size) of the loan was slightly important; this is represented by a mean of 0.124. Market forces also features as a slightly important factor with a mean of 0.115.

An analysis on microfinance sources of finance reveals that client deposits are the preferred source of finance 51.16 percent of the respondents agreed that client deposits are their main source of finance this is also represented by a mean of 0.51. Share holders’ funds closely follow client deposits with 30.23 percent of the respondents saying that they receive their finances from share holders’ equity; this is represented by a mean of 0.302. While 15.12 percent of the respondents said that they are funded by donors this is represented by a mean of 0.151. Lastly, 3.49 percent of the respondents said that they receive their financing from retained earnings this is represented by a mean of 0.035.

It was established that client deposits are the cheapest source of finance 62.75 percent of the respondents chose client deposits as the cheapest source of finance, this is followed by shareholder equity as 19.61 percent of the respondents chose shareholder equity as the cheapest source of finance, 15.69 percent of the respondents chose donor funding as the cheapest source of finance while 1.96 percent of the respondents chose retained earnings as the cheapest source of finance. The analysis reveals that client deposits are the cheapest source of finance.

Microfinance institutions receive capital from many different sources; some of the sources attract interest payments. Client’s deposits attract interest payments so does share capital and retained earnings. Interest charge on retained earnings is the opportunity cost of what would have been incurred on the retained earnings having invested in an alternative investment. To raise the interest payments expected on capital some microfinance institutions pass the burden down to their loan borrowers. From the analysis, it was established that 87 percent of the respondents pass the burden down to its loan borrowers while 13 percent don’t.

Microfinance institutions charge higher interest rates on loans compared to commercial banks, this is because of high administrative costs associated with processing micro loans. From an analysis on if microfinance institutions subsidise interest charges on loans 71
percent of the respondents indicated that they subsidize interest charges on loans while 29 percent of the respondents do not subsidize interest charges on loans.

The analysis reveals that interest rates and by extension loans were more affordable to the public after interest rate capping which pushed interest rates to below 14 percent. From the respondents interviewed 79.10 percent indicated that loans were more affordable, 19.4 percent did not agree while 1.49 percent did not know if it was more affordable or not. From the analysis on microfinance institutions it was revealed that the number of loan requests increased after interest rate capping 76.12 percent of the respondents indicated that loans requests increased while 23.88 percent said that loan requests did not increase. It was also revealed that 50.75 percent of MFIs increased lending after interest rate capping while 49.25 percent did not increase lending, showing that there was no much increase in lending at microfinance institutions after interest rate capping. From the respondents interviewed 65.67 percent said that the revenues increased after interest rate capping while 34.33 percent said that there revenues remained unchanged.

A linear graph analysis on Private Sector Credit (World Bank, 2018) revealed that there was a decline in Private Sector Credit from 34.32 percent in 2015 to 32.81 percent by the end of 2016. From an analysis of a linear graph data derived from CBK reveals that there has been a sharp upward trend on average advances from commercial banks to Government.

5.3 Discussion

5.3.1 Factors Considered while Determining Interest Rates

An analysis on the factors considered while determining interest rates, risk is recognized as one of the prominent factors, the research used closed ended questions many factors that relate to risk were identified as crucial these includes: duration of lending, the longer the time taken to settle loan payments the riskier it is, as occurrences into the far future cannot be easily predicted as compared to shorter time periods (Graham and Qiu, 2008). The mean on duration of lending is 0.115. Amount of loan or rather its size is important as the larger the size of the loan the larger the risk, the reverse also applies (Graham and Qiu, 2008). The mean for the size of the loan is 0.124. The mean for collateral security mean is 0.239; collateral reduces a financial institutions risk exposure. Collection of
collateral security is crucial way that can be used by financial institutions to reduce asymmetric information.

Asymmetric information occurs when one party to a transaction withholds information that is important to a decision making process by the other party. For instance, a borrower could withhold information such as work lay off; this could in turn affect future loan repayments in the event a loan is granted by the lender. Risks’ involving asymmetric information is reduced as collateral reduces lenders losses in case of default, the lender can claim the collateral and sell it to recover amounts borrowed by the borrower (Chakraborty and Hu, 2006). The mean for risk involved is 0.124 and bank statements are 0.106, banks have the ability to scrutinize customers’ accounts and evaluate if they are in a position to pay back loans (Graham and Qiu, 2008). If we combine other factors related to risk such as collateral, amount of loan, duration of lending, customer profile and bank statements the total of risk and factors related to risk is at 0.805. This affirms that risk is a factor considered in interest rate determination they posit that financial institutions face a number of risks that they have to safeguard themselves from. Angbazo (1997) states that interest rate margin is affected by risk, risk can be divided into three categories: credit risk, liquidity and interest rate risk. Credit risk is the probability that a borrower will default on loan and interest repayments, liquidity risk occurs due to the stochastic nature of deposits and loans, they occur at different times and interest rate risk is the possibility that a financial institution may not receive interest payments expected on investments. Banks risk aversion also affects interest rates, the more risk averse the higher the NIM and vice-versa (Hiremath and Kumari, 2014).

Central Bank Rates have also been identified as a factor considered in determining interest rates with a mean of 0.0354 on importance, according to statutory requirements banks are required to hold reserves with the Central Bank, these reserves are non interest bearing due to this, banks may charge higher interest rates on loans to compensate for the lack of on reserves (Boutin-Dufresne, Williams and Zawisza, 2014).

Profitability has also been identified as a factor to be considered, with a mean of 0.044 on importance. McLeay, Radia and Thomas (2014) affirm that profitability is an important factor to be considered while determining interest rates. The higher the interest rates charged on loans the less that individuals and companies will borrow; the reverse also
applies. The lower the interest rate charged on loans, the more that individuals and companies will borrow.

Market forces have also been identified as a factor considered in interest rate determination, from the findings this has a mean of 0.115. Market forces also constrain lending by commercial banks as they have to lend profitably in a competitive market (Grinblatt and Titman, 2016). Banks face uncertainties and costs since the demand for loans and supply of deposits occur in a stochastic fashion meaning that it occurs at different times. Banks have to manage these uncertainties by holding a short or long position in the short-term money markets (Saunders and Schumacher, 2004).

5.3.2 Evaluation of Microfinance Institutions Sources of Finance

From the analysis we see that client deposits (savings) are the preferred source of finance for microfinance institutions with 51.16 percent of the respondents agreeing that client deposits are their main source of finance, this is also represented by a mean of 0.51. This is supported by Espallier et al., (2016) deposits are the main source of financing for most financial institutions and they account for a greater percentage of financial institutions liabilities.

Share holders’ funds closely follow client deposits with 30.23 percent of the respondents saying that they receive their finances from share holders’ equity; this is represented by a mean of 0.302. Shareholder funds have also been identified as a method of raising capital, this is also known as owner’s equity as each shareholder purchases a company’s shares. In countries with well-developed capital markets, microfinance institutions have used capital markets to raise funds; these funds could be in the form of debt or equity financing (Espallier et al., 2016). Partnership agreements are also common in Kenya where a number of individuals put their finances together to form capital.

Donor funding was also identified as a source of finance for microfinance institutions with 15.12 percent of the respondents saying that they are funded by donors this is represented by a mean of 0.151. Most microfinance institutions started as Non-Governmental Organizations with a purpose of providing financing to low income individuals. Donor funding was the main source of funding for most MFIs. Unregulated MFIs prefer donor funding because of their not very clear legal status and non-corporate structures (Espallier, 2016).
From the analysis it was revealed that 3.49 percent of respondents receive their funding from retained earnings this is represented by a mean of 0.035. It is noted by Janda and Zetek (2014) that retained earnings is not a common source of finance for most microfinance institutions, though not a very common source of finance retained earnings has a far reaching positive impact due to cheaper loans.

From the analysis it was established that the cheapest source of finance is client deposits with 62.75 percent of the respondents choosing clients deposits, 19.61 percent of the respondents chose shareholder equity as the cheapest source of finance, 15.69 percent of the respondents chose donor funding as the cheapest source of finance and 1.96 percent of the respondents chose retained earnings as the cheapest source of finance. It is clear from the analysis that client deposits are the cheapest source of finance. Clients deposits has served to increase access to capital for most microfinance institutions, with regulated MFI s having an advantage over unregulated MFI s. Having the ability to mobilize client deposits means that the microfinance institution has to be regulated; these comes with additional benefits apart from access to capital ,additional benefits such as: diversified governance and ownership structure, increased professionalism, improved management systems and improved overall internal controls are among additional benefits( Ledgerwood and White, 2006).

5.3.3 Evaluation of how Interest Rate Capping affects Financial Institutions

The analysis reveals that interest rates and by extension loans are more affordable to borrowers following interest rate capping which reduced interest rates to below 14 percent. From the respondents interviewed 79.10 percent indicated that loans were more affordable to borrowers after interest rate capping, 19 percent did not agree while 1.49 percent did not know if they were more affordable or not. A survey carried out by CBK indicates that 35 percent of the respondents in the survey recorded an increased demand for credit following interest rate capping, 50 percent of the respondents indicated that there was no change to credit demand, 15 percent of the respondents recorded a decrease in demand for credit following interest rate capping (CBK Credit Survey report, 2017). Interest rate capping was meant to make credit more accessible to a wider range of borrowers as the cost of borrowing reduced following the interest rate cap but this was not the case as commercial banks tightened credit standards (Kenya Economic Update, 2017).
A linear graph analysis on Private Sector Credit (World Bank, 2018) revealed that there was a decline in Private Sector Credit from 34.32 percent in 2015 to 32.81 percent by the end of 2016. From an analysis of a linear graph data derived from CBK databanks revealed that there has been a sharp upward trend on average advances from commercial banks to government. Interest rate caps did not lead to an increase in loan advancements to the private sector as was expected on the contrary, it triggered a further slowdown in private sector credit. From CBK survey, it was indicated by 45 percent of the respondents that interest rate capping had a very small impact on credit, 10 percent of the respondents recorded that actual credit given increased and 45 percent of the respondents indicated that actual credit decreased (CBK Credit Survey Report, 2017). SMEs were negatively affected by interest rate capping as commercial banks tightened credit standards, this in turn resulted to locking out borrowers considered to be high risk (CBK Credit Survey Report, 2017).

This view is supported by World Bank findings that interest rate capping has significantly affected small borrowers and SME’s as banks lock out riskier categories of borrowers such as the aforementioned and shift towards lending to corporate clients, this is specifically true for both tier 1 and tier 2 banks which have both exhibited a significant shift towards lending a larger portion of loans to corporate clients. Consumer lending still took place but only for the well-known individuals with less risk. Commercial banks stopped lending to unknown or new customers; this has led to a significant decline in unsecured loans since the interest rate cap came into effect (Kenya Economic Update, 2017).

Banks shift from lending to SMEs and small borrowers has contributed to a huge negative impact on Kenya’s economy, entrepreneurship and job creation especially due to the fact that SMEs and small borrowers are the majority of the borrowers with 4/5 borrowers either being an SME or small borrower. Apart from shifting credit to corporate clients, banks have also reallocated credit from the private sector to investing in government securities. In 2017, credit growth to the government was at an average of 15 percent compared to 2.3 percent to the private sector. There has been an increase in purchase of government securities as they are considered to be risk free. The number of new borrowers has significantly reduced by more than half from 13 percent in March 2016 to 6 percent after the interest rate caps (Kenya Economic Update, 2017). IMF further claim
that the caps is hurting financial inclusion and has severely affected access to credit by small and micro enterprises consequently reversing economic growth. (Business Daily, 2017).

The reasons why small institutions have limited access to financing is well known. (I) they are more prone to economic changes and have a higher possibility of not surviving economic shocks, these makes traditional lenders such as banks afraid of getting into dealings with them. (ii) The high administrative costs associated with processing many micro loans greatly reduce the profitability of commercials banks. (iii) Lack of proper accounting records and collateral also makes banks shy away from lending to small enterprises as the risks are escalated (iv) Commercial banks prefer to lend to corporate clients; in some countries you may find that commercial banks have ownership to some of the corporate businesses (Levitsky and Prasad, 1987).

Looking at the chronological sequence of events that led to a slowdown in private sector credit; it has been revealed that more than one factor caused the decline. A number of triggers both exogenous and endogenous were to blame for the consistent downward trend in private sector credit. Exogenous factors such as external financing shocks are among the factors that led to the decline which occurred from the 2nd half of 2015 however, the triggers were in early 2015. Exogenous factors that eventually put pressure on domestic prices and the exchange rates are to blame also included is the interest rate capping that came into effect in September 2016 and attractive rates on risk free government securities, commercial banks increased investment in government securities and reduced lending to the private sector (Kenya Economic Update, 2017). Interest rate caps complicated recovery on the declining private sector credit. Though the interest rate caps reduced the cost of credit, lending to the private sector did not increase on the contrary it declined because of heightened credit controls imposed by commercial banks (CBK Credit Survey Report, 2017).

De Muth (1985) posits that, interest rate ceilings led to a decline in consumer credit in the United States back in the 1970’s when usury laws were implemented. Coase (2012) states that a firm will only continue to sell a product if the firm is able to cover its costs otherwise it will not have an incentive to sell. If substitute unregulated products are available, consumers will turn to this unregulated products. Economic losses to consumers will take the form of expensive alternative products which could also be of
poor quality (DeMuth, 1985). Price controls may also lead to redistribution of income and
wealth as differential gains and losses takes shape. Similarly, those companies selling
substitute products may record windfall gains. Interest rate caps resulted in commercial
banks making losses while borrowers gained from instantly reduced interest rates
(Hubmer, Krusell and Smith, 2016). De Muth (1985) further adds that price controls may
harm those it was made to protect.

Where monetary policy is concerned interest rate caps may undermine monetary policy
transmission and by extension CBK independence and ability to steer the economy. Say if
CBK decide to reduce CBR in order to stimulate the economy, interest rates will be
expected to also reduce as they are linked to the CBR and are allowed to fluctuate up to a
maximum of 4% above the CBR rate. This would further harm riskier borrowers as they
will be locked out from accessing loans from commercial banks (Kenya Economic
Update, 2017).

Empirical evidence shows that interest rate caps distorts the market this is because,
financial institutions reallocate loans to borrowers with higher collateral and lock out
borrowers considered to be high risk who may not have other borrowing alternatives
(Johnson and Williams, 2016). Financial institutions may still remain profitable even after
interest rate caps but the restrictions may reduce investments in new markets (Minsky,
2015).

From the analysis on MFIs it has been revealed that the number of loan requests increased
after interest rate capping of commercial bank interest rates 76.12% of the respondents
agreed that loans requests increased while 23.88% said that loan requests did not increase.
It is was also revealed that 50.75% of MFIs increased lending after interest rate capping
while 49.25% did not increase lending ,showing that there was no much increase in
lending at MFIs after interest rate capping. This is supported by data from CBK showing
that between 2015 and 2016 there was no much increase in net advances made by MFIs
the increase between these two years was at 3%, this is an increase at a decreasing rate,
from analysis an increase by 16% was recorded between the years 2014 and 2015.
5.4 Conclusion

5.4.1 Factors Considered while Determining Interest Rates

From the analysis it has been revealed that there many factors considered while determining interest rates. Risk has featured as a prominent factor; this can be further broken down to three categories namely: Interest rate risk, liquidity risk and credit risk. Among the factors considered were: market forces, profitability, CBK rate and risk (bank statements and collateral). For analysis purpose researches categorize the factors that considered into three main categories namely: Industry related factors, bank specific factors and macro-economic factors. Under industry related factors we have: competition and market forces. Under bank specific factors we have: risk aversion (risk appetite), bank specialization, off balance sheet exposure and profitability. Under macro-economic factors we have: CBK monetary policy initiatives and business cycle.

5.4.2 Evaluation of Microfinance Institutions Sources of Finance

Microfinance institutions came into existence to cater for the financial needs of an underserved market segment comprising of small enterprises and low income earners. Due to processing of micro loans and also the general risk of this market segment, microfinance institutions charge higher interest rates on loans this is in comparison to commercial banks. Source of funding can also be a contributor to a high interest rate as most of the investors require a return on their investment. Microfinance institutions have many options for funding namely: Commercial banks, donor funding, client deposits, shareholder equity and retained earnings. From the analysis, it was revealed that microfinance institutions in Kenya are funded through: client deposits, shareholder equity, retained earnings-though not common, and donor funding. It was indicated that client deposits was the cheapest source of funding. In Kenya the option of client deposits is only available to regulated microfinance institutions.

5.4.3 Evaluation of how Interest Rate Caps affects Financial Institutions

Interest rate caps came into effect in September 2016 placing a cap on commercial bank interest rates at 4 percent above the CBR rate which currently stands at 10 percent and a floor at 70 percent of the CBR rate on deposits. There was a mixed reaction in the market in regards to this. Interest rate caps were implemented to protect borrowers from bank
exploitation as high interest rates were blamed for the growing number of non-performing loans in the market. After the interest rate caps, market expectation was that there will be an increase in loan requests. From analysis, it is revealed that there was an increase in loan requests at commercial banks though this did not translate into loan disbursements. Commercial banks re-strategized increasing loan disbursements to corporate clients and also increased investments on attractive risk free government securities, this was at the expense of borrowers majorly comprising of small enterprises, low income earners and new borrowers who were also locked out citing high risks associated with serving these market segments and lack of flexibility to cover risk by charging higher interest rates on loans requests because of the interest rate caps.

There has been a further decline in private sector credit and interest rate caps are among the factors that have led to this slow down. Both endogenous and exogenous factors led to private sector credit dip these factors caused shocks in the market as early as the first quarter of 2015. From analysis, it was revealed that loan advancements by microfinance institutions slightly increased this wasn’t according to expectations as expectation was that borrowers considered to be high risk would sought for alternative sources of finance probably from microfinance institutions.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Factors Considered while Determining Interest Rates

From analysis, it has been revealed that risk is a major factor considered before interest rate determination. Interest rate based on risk varies among borrowers with high risk clients paying a premium or locked out from accessing loans. The government should encourage the use of credit reference bureaus for gathering information to be used for credit rating; this is to reduce issues of information asymmetry and for interest rates to be set based on a borrower’s credit history. Low income earners and small enterprises may lack collateral but could be having a good credit history which could also be used for making credit decisions. Secondly, small enterprises should be sensitized about keeping good financial records as this will make it easier for them to access loans.
5.5.1.2 Evaluation of Microfinance Institutions Sources of Finance

Microfinance institutions started as Non-Governmental Institutions mainly financed through donor funding, this source of finance proved not to be very reliable and was a setback to the sustainability of microfinance institutions. 4 out of 5 borrowers are from small enterprises or are low income earners who are also considered to be high risk. Due to locking out of groups of borrowers considered to be high risk from accessing loans from commercial banks, the government should put in more effort to support new and existing microfinance institutions access cheaper sources of funding as this translates to cheaper loans. Microfinance institutions may also be encouraged to make more use of technology to lower high administrative costs and consequently interest rate as is the case with Mshwari which is mainly technology based and is used for processing micro loans.

5.5.1.3 Evaluation of how Interest Rate Capping affects Financial Institutions

Some countries have recorded positive gains from interest rate caps especially where it is meant to protect consumers and lead to development of certain sectors in the economy. However, interest rate caps also has major economic setbacks such as undermining CBK monetary policy initiatives where interest rates are linked to the CBR rate, financial sector development, entrepreneurship, new job creation or causing commercial banks to lock out a certain market segment considered to be high risk further undermining efforts made towards financial inclusion. Interest rate caps may also cause economic losses to borrowers who may seek for alternative sources of finance that could be more costly. Despite this, we cannot ignore the benefits to borrowers, benefits such as lowered banking operation costs resulting in lower interest rates and commercial banks being pushed towards operating at a more efficient level.

Because of the dominance of commercial banks in the Kenyan market and to continue protecting borrowers, some form of regulation is still required up to a time when commercial banks are no longer quite dominant. I would recommend that interest rate caps remain only that, the cap should be slightly increased to allow for consideration of risks associated with high risk borrowers. Competition in the financial sector will prevent commercial banks from allowing interest rates to float towards the new caps.
5.5.2 Recommendations for Further Studies

The study was interested in finding out if borrowers locked out from accessing loans from commercial banks sought for alternative financing from microfinance institutions. From the study, it was revealed that there was no major change in loan advancements from microfinance institutions; question is where are these individuals and small enterprises receiving their loans from and whether financial inclusion efforts has been affected by the interest rate caps.
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QUESTIONNAIRE

Appendix I: Questionnaire

I am a Masters Student at United States International University, carrying out research on the impact of commercial bank interests rate capping on loans and advancements generated by microfinance institutions. This is a requirement for the award for Masters Degree, I kindly request for your support by responding to this questionnaire which will only takes a few minutes to fill. I appreciate your accuracy and honest response for objectivity of this research.

SECTION A: DEMOGRAPHIC INFORMATION

1. What is your gender
   - Female
   - Male

2. State your highest level of education
   - Secondary School
   - College
   - University
   - Postgraduate

3. Which type of Financial Institution are you working for?
   - KUSCCO
   - Microfinance
   - Central Bank of Kenya

4. For how long have you been working in your Institution/Organization?
   - Less than 3 years
   - 3 to 9 years
   - 9 to 12 years
   - Above 12 years

5. What is your position in the organization?
   - Credit Officer/analyst/manager.
   - Operations Officer/manager
   - Finance officer/Treasury/Manager
Section B: Factors Considered While Determining Interest Rates

6. Which factors do you consider when determining interest rates?

7. In consideration to your answer in question 6, how significant is/are the factor(s) considered with 1 being extremely important, 2-slightly important, 3- Neutral, 4-slightly unimportant, 5-extremely unimportant.

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<tr>
<th>Factors considered while determining interest rates</th>
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<td>Bank statements</td>
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<td>Duration of lending</td>
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<td>Customer profile</td>
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Section C: Microfinance Sources of Funding

8. What are your sources of capital?

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...........................................................................................................................................................

9. What interest payments are you charged on your sources of capital if any?

...........................................................................................................................................................
...........................................................................................................................................................

10. Do you pass interest payments on your capital to your loan borrowers?
    Yes □
    No □

11. Among your sources of capital, which would you consider your cheapest source?
...........................................................................................................................................................
Section D: Interest Rate Capping on Commercial Bank loans and its impact on loans and Advancements by Microfinance Institutions

12. Do you consider interest rates before interest rate capping affordable to your clients?
   Yes ☐
   No ☐

b. Please give reasons for your answer

13. Do you consider interest rates after interest rate capping affordable to your clients?
   Yes ☐
   No ☐

b. Please give reason for your answer

14. Did the number of loan requests increase after interest rate capping?
   Yes ☐
   No ☐

15. Did your Organization/Institution increase lending after interest rate capping?
   Yes ☐
   No ☐
   Give reasons why?

16. After interest rate capping, did your Organization/Institution revenue increase?
   Yes ☐
   No ☐

17. Did your organization reconsider its market?
   Yes ☐
   No ☐

….. END……

Thank You