EFFECT OF INTEREST RATE CAPPING ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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A Research Project Report Submitted to the School of Business in Partial Fulfilment of the Requirements for the Masters of Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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STUDENT’S 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: ______________________

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

Signed: ______________________  Date: ______________________

Timothy C. Okech, PhD

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Dean, Chandaria School of Business
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ABSTRACT

The purpose of the study is to examine the effects of interest rate capping on performance of commercial banks in Kenya. The key objectives of the study were to analyse the effect of interest rate capping on the profitability of commercial banks in Kenya; investigate the effect of interest rate capping on credit uptake; and analyse the relationship between interest rate capping and lending patterns in commercial banks in Kenya.

A descriptive research design was adopted to explain the nature of the relationship between interest rate capping and performance of commercial banks in Kenya. The target population for the study included 44 licensed commercial banks in Kenya. The calculated sample size for the study includes 39 commercial banks in Kenya. The researcher compiled all the relevant annual financial reports of all the listed commercial bank. A critical analysis led to the selection of the data pertaining to the performance, loan accessibility and profitability of all the listed commercial banks. Some of the data was obtained from the Central Bank of Kenya database. Simple random sampling was utilized to select the commercial banks as the representatives for the study. Statically Package for Social Sciences (SPSS) was used to code and analyze the compiled data. In the study, both descriptive and inferential statistics were used. Descriptive statistics were in terms of graphs, frequency tables and chart, while inferential statistics were in terms of linear regression, ANOVA and correlation analyses.

The findings show that commercial banks in Kenya comprise public commercial banks (8%), private commercial banks (55%) and foreign banks (38%). The total net assets in the commercial banks stood at Kshs 4.0 trillion by December 31, 2017. The local private banks make up for 64.8% of the total assets in the commercial banking sector. Public commercial banks make up 3.5% of the total net assets in the commercial bank sector. The overall efficiency in the commercial bank is considered high as indicated by the overall net assets the level of technology application to facilitate service delivery. In terms of performance, the results reveal that the overall performance in the banking sector declined by 9.6% in 2017. The decline was recorded in pre-tax profits. The decline in the profitability of commercial banks was associated with the reduction income and not an increase in expenses. The impact was heavy on smaller banks that experienced accelerated decline in profitability after the introduction of the interest rate cap. Tier III commercial banks
experienced difficulties in building capital and retaining income flow. There is a significant weak positive relationship between interest rate and the overall profitability of commercial banks. This explains why the introduction of interest rate caps led to a decline in income.

The results further show that there was an increase in the average size of loans offered by commercial banks in Kenya. This implies that banks preferred lending to entities with fewer risks. A positive significant relationship between interest rate and credit uptake was established via regression analysis. Other than the risk profile of a client, there are other factors that influence the decision to offer loans to a client in commercial banks. The ratio of performing and non-performing loans is one of the indicators used to determine the number of loans that a bank can offer. In a bid to cushion themselves from risky loans, banks use high interest rates as one of the control measures. This seeks to explain why after the introduction of interest rate capping the credit market settled for secured short term or loans to the well-established corporate institutions. This was because of the heightened sensitivity to risks and non-performing loans. According to the findings of the study, there was a positive significant relationship between interest rate and the lending patterns of commercial banks. Interest rates is a driving factor when offering loans, which means with high interest rates banks will tend to offer more loans. The average lending patterns in the Kenyan commercial banks sector remained average after the introduction of the interest rate cap. On the same note, there was an increase in the deposit rate after the introduction of the interest rate cap law.

The study recommended that the Central Bank of Kenya should use alternative ways to solve the issue of money supply because the introduction of interest rate cap stifles the growth of commercial banks. Commercial banks are encouraged to expand their sources of income to avoid over reliance on interest rates as the source of income. It will make it easy for commercial banks to cope with the changes in laws that affect interest rates. There should be a framework that guides lending patterns with aim of protecting the interests of both commercial banks and clients.
ACKNOWLEDGMENT
I would like to thank the Lord Almighty for the opportunity to undertake my studies and the ability to carry out this research. Secondly I would like to appreciate my family and friends for the support they accorded me whilst I undertook the study and to my supervisor, Prof. Timothy Okech for the invaluable support and guidance as I undertook this study.
DEDICATION

I would like to dedicate this study to my family and friends for the support and inspiration they granted me throughout my research work.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study
Interest rate capping refers to the placement of caps that limit the fluctuation of interest rates offered on loans by commercial banks (Miller, 2013). Several countries around the world use interest capping as a control policy. China, Japan, France, Germany, and United States are among the developed nations that have interest rate caps in place. Belgium and France use interest rates to protect consumers from high lending costs and excessive interest rates charged by financial institutions. Netherlands relies on interest capping to control the risk-taking attitude of major financial institutions (Helms & Reille, 2004). The aim being to ensure the economy is stable at all times. Developing nations like Thailand use interest rate caps to improve financial access to the low income borrowers. In Peru, the Central Bank relies on the market dynamics to set interest rates but it retains the capacity to step in and control interest rates if the economy is not stable (Maimbo & Gallegos, 2014).

The usefulness of interest rate capping as a tool to manage market failures should not be underestimated (Griffith-Jones & Gottschalk, 2016). Many developed economies used interest rate cap after the 2008 global financial crunch to mitigate its effects on the economy (Miller, 2013). The United Kingdom reduced interest rate to 0.5% to encourage borrowing while using quantitative easing worth $75bn to allow commercial banks to invest in other areas of the economy (Kollewe, 2016). The move played a key role in dragging the economy out of recession. It is noted that the effectiveness of interest capping is limited because it cannot be used for a long period of time (Kollewe, 2016).

The appropriateness of interest rate capping as a control policy can be unearthed by analysing the cost of funds and overheads as they influence the value of interest rate used by commercial banks. The cost of funds refers to the rate at which a commercial bank has to borrow the money that it can lend to clients. The overheads refer to the administration costs, cost of loan and credit assessment, and outreach costs. The third charge that influences interest rates is the profit margin, which varies from one financial institution to another (Griffith-Jones & Gottschalk, 2016). All these justifications provided by commercial banks seek to explain the interest rates charged to borrowers. On the other hand, the key justification for interest rate capping by governments is to stabilize lending
by financial institutions as they have been seen to be making supernormal profits through exorbitant interest rates. This explains why commercial banks will opt to settle for short term secured loans and to lend to low risk clients such as established large corporate and governments when interest caps are implemented so as to minimize their credit risk which impacts the soundness of financial institutions. Whilst this strategy could enable commercial banks remain sturdy, it discriminates the high risk borrowers.

In response, the high risk borrowers are likely to opt for unorthodox means of borrowing such as shylocks who charge exorbitant interest rates. This scenario counters the argument that interest rate capping can improve access to finance for those on the lower end of the wealth spectrum. According to Miller (2013), major financial institutions rely on the profits generated from borrowing to expand their networks to rural areas. They tend to carry out financial training in a bid to increase their client base, which increase the members of the economy who have access to financial services. The implementation of interest caps reduces the profits generated by financial institutions and as a result, financial institutions can stop their outreach programs and withdraw from remote areas that do not generate adequate profit as part of reducing operating costs (Miller, 2013).

Many world economies including Australia, Canada and the United States of America have interest caps in place. Canada and Australia rely on interest rate caps to control payday loans. The payday lenders in Australia have 4% cap per month and in Canada payday lenders have a maximum of 60%. The regulations on interest rate caps in the United States depend on the state regulations and laws. For example, Arkansas has a consumer interest rate cap of 17% (Maimbo & Gallegos, 2014). The widespread use of interest rate caps is a confirmation that it is still a popular tool despite the fact that it’s detrimental to the performance of commercial banks. Most developed nations limit interest rates caps to particular sectors of the economy to avoid interfering with the market dynamics on a large scale.

In Africa, many countries have implemented interest rate caps in a bid to shield consumers from the high interest rates that are charged by lenders (Maimbo & Gallegos, 2014). It is also noted that the interest rate capping in Africa is associated with the governments that are under pressure to reduce interest rates, and in most cases the pressure is politically instigated. In Sub-Saharan Africa there are 24 countries that have interest rate caps in place.
They include Benin, Burkina Faso, Ivory Coast, Mali, Guinea-Bissau, Togo, Senegal, South Africa, Mauritania, Ethiopia, Namibia, Nigeria, Eritrea, Zambia and Ghana (Maimbo & Gallegos, 2014). The countries that form the West Africa and Monetary Union (WAEMU) had interest rate ceilings in place by 1997 and revised them in 2013 when it dropped by 3%. The Bank of Zambia introduced interest rate cap for all loans offered by non-bank financial institutions in January 2013. This was a measure aimed at making loans affordable for low income borrowers (Mbengue, 2013). According to Mbengue (2013), the increasing trend by countries to cap interest rates is detrimental. This is because of the potential negative effects of interest rate ceilings on the economy. In cases where the interest rate caps are too low financial providers tend to have problems with generating revenue, which makes it difficult for them to grow.

In Kenya, the Banking (Amendment) Act of 2016 set the maximum lending rate at 4% above the Central Bank base rate (Central Bank of Kenya, 2018). The introduction of the interest rate cap was justified by the notion that it would help protect borrowers from excessive interest rates with an aim of encouraging investment and prodding economic development. It also aimed at improving financial inclusion by increasing the number of businesses and individuals who can access a wide range of financial services (Central Bank of Kenya, 2018). According to the Central Bank of Kenya (2018), interest capping has had an adverse effect in the international economy such includes; reduced competition in the banking sector and low intermediation and transparency. Research by the Central Bank of Kenya established that interest caps have negative effects to the country’s financial system. With the interest rate capping in place, banks have opted to target governments and large corporations because of the low risk associated with lending to large institutions (Central Bank of Kenya, 2018). Despite the increase in the demand for credit, the lending in the private sector has been on the decline since the introduction of the interest rate cap (Maigua & Mouni, 2016). This is because commercial banks are reluctant to offer loans at low interest rates given the risks involved (Maigua & Mouni, 2016). Instead, commercial banks have opted to diversify their sources of income to keep with the changes in the market.

The findings of the Central Bank of Kenya research have been echoed by several studies that criticize the implementation of the interest rate capping. According to Okwany (2017), interest rate capping led to a decline in credit uptake and the number of non-performing loans increased. As a result, the profitability of many commercial banks was negatively
impacted. Mбуa (2017) posits that government regulations have a significant impact on the decisions that investors make about companies listed in the Nairobi Stock Exchange (NSE). Therefore, the performance of banks listed in the NSE must have been influenced by the introduction of the interest capping law. Оkwany (2017) recommends the use of alternative strategies to shield consumers from excessive lenders because interest rate capping has limited effects. It is not a control policy that is suited for long term goals. Financial institutions should consider alternative means of income to reduce their dependence on interest rates as a source of revenue.

Commercial banks play a significant role in the allocation of resources in an economy. Banks serve as intermediaries to bridge the gap between depositors and borrowers and the flow of money in the economy is heavily reliant on the performance of commercial banks (Оkwany, 2017). It is in this regard that the evolution of the financial market has not been able to override the importance of commercial banks in any economy. It is therefore imperative for banks to generate adequate income to cover operational costs. The profitability of a commercial bank has a significant role when it comes to the evaluation of performance of commercial banks. The sources of income for most commercial banks include investing in business ventures, participating in the stock exchange market and charging fees for different services. A positive performance for a bank means an increase in the profit margin. Other factors that can influence the overall performance include employees, culture and other factors in the internal environment. It is therefore vital to ensure that performance of commercial banks is not stifled as it has a huge impact on the economy (Оkwany, 2017)

Studies have shown that interfering with the capacity of commercial banks to lend undermines the stability of financial sector (Оlokoyo, 2011) The ability of a commercial bank to offer credit services to businesses and individuals is determined by the existing cash deposits and profitability levels (Оlokoyo, 2011). Appropriate lending by commercial banks makes it relatively easy for businesses and individuals to access credit services as and when need arises (Ариядаса, Selvanathan, Siddique, & Selvanathan, 2017). The lending capacity of a commercial bank can be regulated by limiting either funds available for lending or the rate of interest charged on loans. According to Albulescu (2015), the poor performance of commercial banks limits the cash available for lending and investments. The bank can be pushed to prioritize lending to high level of organizations with fewer risks.
1.2 Statement of Problem

Worldwide, interest capping continues to be applied as a common financial control tool by many governments. For example, Canada relies on interest rate caps to control payday loans with the maximum being 60%. In Africa over twenty sub-Saharan nations have interest rate caps in place for example Zambia announced a 4% cap in January 2014 (Maimbo & Gallegos 2014). In Kenya, following the introduction of interest capping in 2016, a Central bank report of 2018 shows that the expected increase in credit uptake has not been realized (Central Bank of Kenya, 2018). Instead many commercial banks have been forced to change their business models to keep making profit. The demand for credit has increased but the number of low income borrowers accessing credit has reduced because they are viewed as high risk borrowers with banks instead opting to lend to governments and large corporations because of the low risks associated with these loans (Okwany, 2017).

In a survey by the Kenya Bankers Association on the impact of Banking (Amendment) Act 2016 for the period September 2016 to May 2018, some of the key findings of the survey include the fact that credit markets have opted for short term loans that are secure. These are loans that are offered to large organizations to cover for key costs before being repaid within a year or months. They lean towards large and well-established business entities because the risks are relatively low. These large corporations have a strong foundation and reputation, which makes it hard for them to default on loans. The implication is that the risk of lending individuals and SMEs is very high compared to the interest rates that have been capped. The result is that small and medium sized enterprises and households have limited access to loans. The credit growth in the private sector has been on the decline despite the rise in the demand for credit. The interest cap law did not help the private sector to grow instead the rate of decline has been extended. The most attractive products for banks are government securities. According to Kenya Bankers Association, the interest rate cap is more beneficial to the rich than to the majority middle and low income borrowers (Ochudho, 2018).

The justification for the introduction of interest rate caps in Kenya is that it would increase access to loans by ensuring that commercial banks do not charge excessive interest rates for loans. On the other hand, commercial banks have pointed out the importance of taking
steps to cover all the risks of lending to different entities because they are at risk of making huge losses (Ochuodho, 2018). This study is focused on understanding the connection between the performance of commercial banks and interest capping in Kenya by examining how interest rate capping has affected profitability of commercial banks in Kenya.

1.3 General Objective
The general objective of the study was to examine the influence capping of interest rate on the performance of commercial banks in Kenya.

1.4 Specific Objectives
1.4.1 To analyse the effect of interest rate capping on the profitability of commercial banks in Kenya.
1.4.2 To investigate the effect of interest rate capping on credit uptake in commercial banks in Kenya.
1.4.3 To examine the relationship between interest rate capping and the lending patterns in commercial banks in Kenya.

1.5 Significance of the Study
The use of interest rate capping as a fiscal policy tool is popular all over the world. The justification given by most governments is that it helps shield consumers and increases financial access for low income borrowers. This study seeks to examine the impact of interest rate capping on performance of commercial banks in Kenya. The study will monitor loan disbursement and average loan accounts and sector distribution of the loans of banks between September 2015 to 2016, and October 2016 to October 2017. The knowledge obtained from the study can be utilized by different stakeholders in the Kenyan economy.

1.5.1 Policy Makers
The knowledge about the impact of interest rate capping on financial inclusion can be used by government policy makers to ensure that every policy serves its intended purpose. Understanding how interest rate capping affects qualifications for loans granted commercial banks makes it easy to check whether interest rate capping encourages or limits financial inclusion in the Kenyan economy.
1.5.2 Financial Sector
Understanding the connection between interest rate capping and the profitability of lending institutions makes it easy for financial institutions to find ways of generating revenue despite the impact of interest rates. For example, if the findings of the study show that interest rate capping has a negative impact on credit uptake then financial institutions can start finding alternatives ways to generate revenue.

1.5.3 Investors
Investors can use the knowledge from this study to predict the changes in the market that come with the introduction of interest rate caps.

1.6 Scope of the Study
The study focused on commercial banks in Kenya. It involved collecting data about lending patterns major lending institutions from January 2019 to March 2019. All the details about the standards for loan qualifications before interest rate capping and after interest rate capping were analyzed. The key limitation of the study was that the amount of data was limited since the studies focuses on the impact of interest rate capping on financial inclusion in Kenya.

1.7 Definition of Terms
1.7.1 Financial Inclusion
This can be describes as a scenario where most members of the economy have access to financial services that allow them to meet their needs. This includes borrowing, lending, storing, and investing (Bihari, 2011).

1.7.2 Central Bank of Kenya
The institution mandated to formulate monetary policy, license all commercial banks, and seek ways to ensure the stability of the financial sector and the economy (Central Bank of Kenya, 2018).

1.7.3 Kenya Bankers’ Association
This is the financial sector’s leading advocacy group and the umbrella body of the institutions licensed and regulated by the Central Bank of Kenya (CBK). KBA reinforces a reputable and professional banking sector in a bid to best support Kenyan citizens who have entrusted resources with its member banks (Okwany, 2017).
1.7.4 Interest Rate Cap
A legal directive that provides the maximum interest rate that a lending institution can charge as interest for any given loan. In Kenya, currently the interest rate is pegged on the CBR at 4%. (Central Bank of Kenya, 2016).

1.8 Chapter Summary
This chapter presented provided a clear description of the study problem, objectives and research questions. The scope of the study and its significance was articulated. The main objective of the study was to examine the impact of interest rate capping on financial inclusion in Kenya. Chapter two presents a comprehensive literature review based on the study research questions: What is the effect of interest rate capping on the profitability of commercial banks? How does interest rate capping affect credit uptake in the Kenyan economy? What is the connection between interest rate capping and the qualification for loans granted by commercial banks in Kenya? The review analysed existing literature about the impact of interest rate capping and its use all over the world while chapter three will discuss research methodology that was used in the study. Chapter four looks at the findings while chapter five entails the discussions of the findings.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter presents a detailed review of literature that is selected based on the specific objectives of the study. The literature review discussion focuses on the effect of interest rate capping on the profitability of financial institutions, economy, and the relationship interest rate capping and the rate of credit uptake in the economy.

2.2 Effect of Interest Rate Capping on the Profitability of Banks

2.2.1 Interest Rate Capping
Interest rate capping describes the introduction of limitations that control the extent of interest rate fluctuation in the market (Maimbo & Gallegos, 2014). It is a measure taken by governments to protect consumers from commercial banks and other financial institutions. Interest rate capping leads to a hybrid interest rate that is allowed to fluctuate according to market conditions but cannot pass a maximum threshold. The fixed component of the interest rate is bestowed by law and the variable part depends on the conditions of the product, amount of loan, and the repayment period (Khan & Sattar, 2014). The most popular motivation behind the introduction of interest rate caps is to protect consumers from over exploitation in the form of exorbitant interest rates and improve the level of financial inclusion in the economy. However, it is important to note that the effect of interest rate capping on the economy are varied, which means in some cases the effect can be negative (Maigua & Mouni, 2016).

Direct financing plays a crucial role in the growth of an economy because it is the key source of capital for businesses. It is therefore necessary for the relevant authorities to ensure that monetary policies are in place to guarantee a fair playing field. Interest rate cap is one of the tools used by governments all over the world to protect consumers from excessive interest rates (Maimbo & Gallagos, 2014). It is pertinent to understand that interest rates are listed as one of the variable factors that directly influences the profitability of commercial banks (Scott & Arias, 2011). This explains why the use of interest rate caps to control lending should be limited. It has the potential to negatively influence the profitability of commercial banks, which is detrimental to the economy.
The Keynesian Theory gives a detailed explanation of how interest rate is determined by the demand and supply of money in the economy (Walsh, 2010). In a classical model the factors that determine the equilibrium interest rate include the demand for investment and the real factors that influence the supply of saving. On the contrary, Keynesian analysis attests that only monetary factors can determine interest rates. Keynes insists that the demand and supply of money in the economy are the key determinants of interest rates (Walsh, 2010). One should not confuse the demand for commodity and the demand for money. The demand for money is the desire to own an asset. The demand for cash can arise because of the need to partake in a transaction, the need to guard against an uncertain future, and the need to hold liquid cash in order to take advantage of the changes in the market. Keynes posits that the demand for money relies on the money that is foregone by opting not to hold bonds. Keynesian theory states that the fall of interest rates leads to an increase in demand for money for daily use and investment. The Central Bank can manipulate interest rates to discourage or encourage lending by commercial banks. It is a common control utilized to keep inflation in check. The introduction of interest rate caps interferes with the dynamics of the market forces, which in turns affects the lending rates by financial institutions. A comprehensive analysis of their relationship between interest rates and lending rates by commercial banks makes it relatively easy to understand how interest rate caps influence the profitability of commercial banks.

2.2.2 Bank Profitability

The income from interest rates is one of the key sources of revenue for commercial banks. Therefore, it is not strange to see the regulation of interest rates influencing the revenue generated by commercial banks (Albulescu, 2015). This explains why it is very important to examine the impact that the introduction of interest rate caps have on the financial performance of commercial banks. Comprehending the extent of the effects makes it relatively easy to come up with measures to increase revenue. Central banks all over the world have resorted to the use of interest rate caps at one point in time to control lending and ensure that commercial banks consumers are not burdened with excessive interest rates. Albulescu (2015) emphasizes the importance of interest rates and the potential negative effects of excessive interest rate caps. The financial performance of an organization is determined by examining the return on assets, which provides a clear explanation of how the management utilizes assets to generate revenue (Samuel & Peters, 2014). According to
Erickson (2018) interest rates can influence the profitability of banks both directly and indirectly. Low interest rates increase the demand for loans, which means increases the interest earnings for commercial banks. High interest rates discourage borrowing, which leads to low interest earnings for banks.

The profitability of banks can also be influenced by the convenience associated with the lending programs (Okoth & Kusa, 2013). The implementation of too many standards that determine loan qualification is likely to reduce the demand for loans from that particular bank. The low demand for loans leads to low interest rates, which negatively influences the interest rate income (Murthy, Mohammed, Anthony & Devi, 2017). It explains why banks strive to make it easy for people to access loans by eliminating standards that do not affect a significant impact on the credit risk. The immediate reduction of interest rates by commercial banks in Kenya after the introduction of the interest capping law is example of how commercial banks strive to maintain their competitive edge in the market.

A Sri Lankan study analyzed capital risk, liquidity risk, operational risk, credit risk and earnings in an effort to understand the factors that influence the profitability of commercial banks in Sri Lanka (Ariyadasa et al., 2017). The study findings show that the long term relationship exists between all the variables of used in the study and the profitability of commercial banks. This means a small change in the one of the factors can have a significant impact on the level of profit. One of the key conclusions of the study is that a stable financial sector and economy provides the impetus needed for increased performance in the commercial bank sector. The stability of a financial sector is based on the level of government interference in the form of monetary policies and the demand for money and commodities.

Ariyadasa et al., (2017) implied that financial policies have an important effect on the profitability of commercial banks. An effective financial policy aims at creating a fair playing ground in order to provide all financial institutions and their consumers the opportunity to create long term relationships. Government authorities are reluctant to leave the state of the financial factors to market factors because consumers are likely to suffer from excessive interest rates. Effective financial policies limit fluctuations in the financial sector, which makes it easy for commercial banks to plan and implement strategies that can help increase profit. Interest rate capping is a financial policy that affects credit risk and
overall earnings of the commercial bank. The study recommends market expansion as one of the best ways to increase the profitability of banks. It echoes the thoughts that heavy reliance on interest rate income can be detrimental to a commercial bank in the long run.

Rasiah (2010) reviewed the existing literature to assess the determinants of profitability in commercial banks. The key profitability determinants fall into two categories namely: internal and external determinants. The internal determinants include all the factors influenced by management control like liquidity, loans, investments, non-performing loans and operational costs. The external determinants are market growth, inflation rates, market growth, and interest rates. According to Rasiah (2010) a review of several studies reveals that the profitability of commercial banks increases with increase in interest rates. However, the increase in earning might not persist in the long run because high interest rates are bound to reduce the demand for loans in the long run. The findings of the study provide a clear overview of the range of factors that influence the profitability of commercial banks. Operational efficiency is a key factor because it helps reduce the overhead costs and maximize productivity.

2.2.3 Effect of Interest Rate Capping on Profitability

The Chinese government made the drastic decision to cut interest rates for both deposits and loans for all financial institutions. The loosening of interest rate floating range for financial institutions led to drastic changes in the financial sector (Mihai-Yiannaki & Rios-Morales, 2015). According to the findings of the study, interest rates have a significant effect on the profitability of financial institutions, stock volatility and stock price. It is imperative to note that despite the strong correlation between stock price and interest rates there are other factors should be considered. The complexities associated with the Chinese economy it is challenging to directly measure the impact of interest rate. The study recommends that the Bank of China should try optimizing loan structures to reduce the influence of interest rates on its profitability. The Bank of China should work towards encouraging the derivation of intermediate businesses to reduce the fluctuation of interest rates when it comes to handling SMEs and large quality clients. The fluctuation affects the stability of the financial markets. One of the implications of the study is the need to diversity sources of revenue for commercial banks. Over reliance on interest rates without focusing on operational costs and other factors in the economy make it difficult to control the profitability of financial institutions.
A recent study conducted in Kenya sought to examine the impact of interest rate capping on the profitability of commercial banks in Kenya (Kavwele, Ariemba, & Evusa, 2018). The key variables utilized for interest rate capping in the study were the non interest income and the interest expenses. The overall performance of the commercial banks were measured based on the total profit before tax and exceptional items (PBTEI). The findings of the study show that interest rate capping had a negative impact on the performance of commercial banks in Kenya because the decrease in PBTEI was found to be statistically significant. The introduction of interest rate capping led to a significant decrease in interest rate income to the point that even an increase in non interest rate income did little to change the situation. Commercial banks are likely to avoid offering risky loans if the interest rates are not attractive (Hymore Boahene, Dasah, & Agyei, 2012). As a result, many banks will target corporations and governments because the loans offered to these large entities are relatively more security. The introduction of interest rate capping is commonly motivated by good intentions but in some instances it is imperative for policy makers to consider all the potential effect of introduce interest rate caps. The negative effects of interest rate capping can discourage financial inclusion and reduce lending rates. Interest rate capping has a heavier effect on commercial banks that rely heavily interest rate incomes as a source of revenue.

Erickson (2018) investigated the effects of interest rate capping on the profitability of commercial banks with a specific focus on the Kenya Commercial Bank. The findings of the study show that interest rate capping has negatively affected the profitability of commercial banks. The loss of a significant source of revenue prompted banks to apply cost cutting measures, which include the closure of some unprofitable branches. The massive laying off of staff was considered to be one of the effects of introducing interest rate caps. The findings of the study confirm that commercial banks in Kenya tend to rely heavily on interest rates as the major source of revenue. Banks that have diversified their sources of income are in a better position to deal with the introduction of interest rate caps without opting for serious cost cutting measures. Governments should opt for long term solutions to solve the issue of money supply because methods like interest rate capping have the potential to discourage credit uptake in the economy. The reduction of credit risk should be achieved by increasing the strength of the credit reference bureau. On the same note, banks are advised to explore new methods of cutting operational costs and increasing overall efficiency. The over reliance on interest as the source of income might be the reason
why the introduction of interest rate caps had a significant impact on the profitability of commercial banks. The diversification of sources of income provides security and aids in the growth of the economy. The introduction of interest rate caps made sense from the perspective of the government because it is inspired by the need to protect consumers from excessive interest rates.

2.3 Effect of Interest Rate Capping on Credit Uptake in Banks

2.3.1 Credit Uptake

There are several factors that influence the credits offered by commercial banks. They include interest rate on the loans, funds supply, inflation rate, bank size, legal reserve standards, and among of non-performing loans (Kiseu, 2014). The rate of interests on loans has a direct impact on credit uptake because it determines the overall cost of a loan. Banks rely on several factors like repayment period, financial stability of the lender and the state of the economy to analyze the risks associated with a particular loan. The level of risks aids in determining the interest rate to ensure that bank is protected. High interest rate on loans discourages uptake of credit by many members of the economy (Raknerud & Vatne, 2013).

Low interest rates result a high demand for loans, which leads to an increase in the revenue for the bank. However, the level of risks is not eliminated despite the increase in revenue. The number of non-performing loans is likely to influence the rate of interests on loans for many financial institutions. In cases, where the banks has a high number of non-performing loans the management can opt to implement high interest rates on loans to discourage lenders who are likely to have problems to pay the loans down the line. It gives the bank the excuses of focusing on large lenders like corporations and governments. The direct effect on interest rates on credit uptake explains why interest rate capping affects the level of credit uptake in the economy. The effect can be either positive or negative depending on how commercial banks respond to the interest rate cap. Banks can opt to cut costs, diversify sources of revenue, and offer favourable interest rates for all classes of borrowers (Boshkoska, 2013). Alternatively, the bank can opt to stick to the maximum interest rate and focus on lending borrowers that come with minimal risks to protect itself from the negative effects of non-performing loans.

Policy makers in the financial industry are expected to consider all the methods of regulation and select the ones that work best for their local economies (Beau, Hill, Hussain,
& Nixon, 2014). It is risky to copy control measures from other countries without considering the potential impact it might have on the economy. Beau et al. (2014) considers the sources of funding a major issue that must be taken into consideration when developing monetary policy. A critical analysis of the lending practices by commercial banks can reveal the effect of interest rates, inflation, and money supply on the cost of loans. The utilization of interest rate caps in low income economies is bound to have a different effect compared to when it is used in high income economies. Therefore, due diligence by policy makers is recommended before the implementation of monetary policies to protect all the stakeholders from the negative effects, which in turn helps boost the performance of financial institutions and the economy.

The utilization of caps as a form of control in the trade industry is not something new in the world. The United States of America proposed the cap and trade as a way of reducing the level of damaging emissions in the environment (McClain & Hylton, 2013). McClain and Hylton (2013) found that the use of cap and trade will increase the cost of business and turn into a burden for consumers and businesses. The prevailing proposals recommend the utilization of cost effective measures that will ensure businesses and consumers do not shoulder a burden that is too heavy. A similar trend can be observed in the financial industry where the use of interest rate caps can turn into a heavy burden for both consumers and financial institutions. It has a significant impact on the level of investments, savings, and spending in an economy.

Typically, commercial banks receive deposits and offer loans at a fee. They are the intermediaries between lenders and savers in the economy. The rate of credit uptake can be used to assess the overall performance of a bank because it influences the amount of revenue generated by the bank. As a result, it is necessary to take into account the impact of interest rate capping the rate of credit uptake and the potential effect it might have on the overall performance of commercial banks and other financial institutions. The lending decisions made by commercial banks and other financial institutions affect the level of investments and the survival of some of the companies in the economy. Banks rely on the size of the loan, size of the company, and the rate of interest rates to decide on loan allocations. The effective management of credit risks is a sign of stability.
2.3.2 Credit Policies

Mileris (2012) recommends the use of comprehensive credit risk models to minimize the risk of lending money to entities that will not pay. Interest rate caps limit the freedom of financial institutions to protect themselves against the risks that come with non-performing loans. This is because the revenue earned from the interest rates of performing loans helps generate the revenue that is lost when a number of loans are not performing (Mileris, 2012). Interest rates, inflation and other financial policies are among the external factors that directly impact the level of profitability of commercial banks and other financial institutions (Khan, Tahir, & Umer, 2015).

A study in China sought to understand the relationship between economic policy uncertainty, lending decisions and credit risks by observing commercial bank (Chi & Li, 2017). The findings of the study show that economic policy uncertainty tends to increase the risks associated with credit uptake and negatively affects loan size offered by commercial banks (Bordo, Duca, & Koch, 2016). Policy uncertainty is a form of economic risk that is realized when the future path of the government policy is not certain. It tends to make businesses and individuals to delay investments and spending the future path of the government policy is certain. Economic policy uncertainty helps increase credit risks for banks and affects the size and amount of loans from financial institutions.

Chi and Li (2017) recommend the reduction of loan sizes by commercial banks to minimize the credit risks that are caused by economic policy uncertainty. The reduction of loan size might help because it means a significant number of borrowers can still access loans at affordable rates. Increasing interest rates to handle the risks that come with economic policy uncertainty might not be effective in the long run. A study analyzed the loan allocation decisions by Jordanian banks to aid in the development of a neural artificial network to help in credit evaluation and approval (Ali & Fathi, 2012). The business intelligence approach recommended by Ali et al. (2012) can be useful in reducing the number of non-performing loans.

The size of a business affects the loan allocation decisions by commercial banks. A bank tries to minimize credit risks by evaluating the level of income, size, and coverage of a business entity. A large business corporation has relatively easier access to large loans compared to small and medium enterprises. This is because of the chances of a large corporation defaulting in payment is low and the number of assets that can be auctioned to
recover the loans are present (Hu, Tong, Liu, Cao, & Yang, 2010). Banks that report high levels of performance are more likely to demonstrate a strong control of their credit risks (Lelissa, 2014). This inspires the strict stance taken by banks when assessing borrowers to determine whether they can be allocated loans.

It should be noted that the credit risk is not limited to the decision whether an individual or a business can pay the loan or not. The key goal of credit risk management is to assess all the variables and maximize the adjusted rate of return for the bank. It is done by making sure that the bank is not exposed to many credit risk elements. Effective risk management is crucial for commercial banks in emerging economies because of the heavy dependence on foreign capital (Lelissa, 2014). A good risk management strategy helps financial institutions reduce credit risks and enhance the capital adequacy (Huang & Xiong, 2015). The implementation of interest rate caps can hinder the effectiveness of risk management strategies adopted by financial institutions like commercial banks. Failure to securitize loans reduces the capital adequacy of financial institutions and exposes them to serious risks. Banks are likely to respond by reducing the number of loans allocated and focusing on the entities with minimal risks. As a result, the middle income earners in the economy might find it difficult to access loans because they are classified as entities with high credit risks.

A study in Nigeria analyzed credit management and overall bank performance of banks that are listed in Nigeria (Uwuigbe, Ranti, & Babajide, 2015). The findings of the study confirmed that the ratio of performing and non-performing loans had a significant effect on the overall performance of banks. The ratio between unsecured and secured loans and the performance of banks was not significant. The main recommendation of the study is the need to implement an intelligent framework that guides credit administration and provides the data need to examine the risks that come with lending to particular business or individual. The vital role of commercial banks in developing and developed economies provides the justification for the need for economic policies to protect them. Effective internal controls is necessary for commercial banks to minimize credit risks and improve credit uptake (Akwaas-Sekyi & Gené, 2016; Albulescu, 2015). The presence of clear instructions to employees is a sign of effective management controls, which in turn reduces the number of bad decisions about loan allocation.
The implementation of interest rate caps can help increase the level of transparency the terms of loans. Financial institutions can opt to increase the overall cost of loan allocation by raising commissions and other overhead costs to make up for the amount lost when interest rate is reduced (Apanga, Appiah, & Arthur, 2016). The improvement of transparency in loan allocation terms can be considered a positive effect of interest caps because it enhances accountability and minimizes corruption. The lack of transparency affects the reputation of financial institutions and internal controls. A transparent system of loan allocation can improve the credit uptake despite an increase in the interest rates because of the value that some businesses and individuals attach to knowing everything before making the decision to request for a loan.

2.4 Interest Rate Capping and Lending Patterns in Banks

2.4.1 Lending Patterns

The lending patterns of commercial banks is determined by a number of factors that include number of non-performing loans, demand for credit, financial performance, internal controls, interest rates, inflation and financial status of the borrower (Chong, Lu, & Ongena, 2013). The relationship between interest rate capping and lending patterns in commercial banks can be direct or indirect. For example, high interest rates can make commercial banks to focus on lending large organizations and governments and shun small and medium enterprises. Interest rates can reduce demand for credit and by extension influence the lending patterns adopted by commercial banks to maximize revenue (Udell, 2008).

A non-performing loan refers to a loan that the borrower has failed to pay 90 days after the designated period. The 90-day window varies based on the terms and conditions of the loan. Failure to pay the interest and the principal amount within the period defined in the terms and conditions for the loan leads to its classification as a non-performing loan (Gambacorta & Marques-Ibanez, 2011). Gambarcorta and Marques-Ibanze (2011) noted that during the financial crisis the banks that had weaker core capital and relied heavily on source funding put more restrictions on loan supply. The finding implies the significant effect that loans have on the financial performance of commercial banks. Loans directly influence the core capital of a bank, which is why all credit risks should be analyzed to minimize risks before allocating loans. Non-performing loans eat into the capital of the bank. Effective internal controls and comprehensive credit risk analysis framework are some of the solutions needed to minimize credit risks and reduce the number of non-performing loans.
Non-performing loans are common in industries that are dominated by small and medium enterprises (Selma & Jouini, 2013). For example, the agricultural industry is dominated by farmers who are likely to face failure in harvest due to natural disasters like drought and floods. Banks rely on centralization and decentralization methods to deal with nonperforming loans. Centralization is characterized by banks cooperating with the government to find solutions. An example of such a solution is; the creation of an Asset Management Company to handle all non-performing loans. In the case of decentralization, commercial banks are at liberty to manage all their non-performing loans. They can use all the methods that are allowed within the legal confines of the nation to handle defaulters and recover their assets.

2.4.2 Non-Performing Loans In Africa

According to Selma and Jouini (2013) there are number of micro and macro factors that influence the level of non-performing loans in an economy. The macroeconomic variables analyzed during the study include the GDP growth rate, real interest rate, and the level of unemployment. The study findings confirmed that GDP growth rate and the return on bank assets varies negatively with the number of non-performing loans while it varies positively with the level of unemployment, real interest rates, and the lack of loan reserves. The real interest rate is affect by the introduction of interest rate caps. Interest rate caps can help reduce the real interest rates and by association help reduce the number of non-performing loans. A reduction in interest rates reduces the level of interests, which alleviates the burden on the loan defaulters. However, the impact from the perspective of the commercial banks will be negative because it means loss of revenue. Therefore, it is prudent to consider all the potential implications of a monetary policy before implementation. A simple policy can have far-reaching consequences on the overall performance of the economy.

A study in Zimbabwe examined non-performing loans in commercial banks using CBZ Bank in Zimbabwe as the subject of the case study (Joseph, Edson, Manuere, Clifford, & Michael, 2012). The findings of the study showed that external factors are the most influencers of problem loans in Zimbabwe. The external factors identified include government policy, natural disaster and the integrity of the people businesses and households borrowing money. Government policy includes measures taken by the government to control interest rates charged by commercial banks. They limit the measures
that commercial banks can take to securitize their loans and minimize the risks that come with them. As part of the internal control, a comprehensive credit evaluation is recommended for all commercial banks (Negera, 2012). However, the positive effects of the internal controls are diluted if the external factors are still detrimental to the profitability of the commercial banks. The size of the bank is also a factor that comes into play because it affects the range and size of loans that can be offered by the bank.

A study by Malede (2014) examined the key determinants lending by commercial banks in Ethiopia by analyzing panel data collected in the period 2005 to 2011. The determinants analysed include credit risk, bank size, interest rate, investment deposit, gross domestic product (GDP), reserve cash, and liquidity ratio. The findings of the study indicate that there is a significant relationship between GDP, bank size, liquidity ratio and commercial bank lending. Interestingly, there was no significant relationship between cash reserve, interest rate, investment, deposit and commercial bank lending. It might imply that during the period of the study there were no major changes in the interest rates offered by the commercial banks. Malede (2014) recommends that commercial banks in Ethiopia must pay close attention to liquidity ratio and credit risks because they affect the capability of a bank to disburse loans. Liquidity ratio affects the cash available for disbursement and it directly influences the size and number of loans offered by a commercial bank. The impact of interest rates might have been noted during the study period if there were changes in the law that defined the maximum amount of interest rates that can offered by commercial banks. Interest rates help in securitizing loans, which means placing a limit on them, makes it difficult for banks to reduce the risk of credit.

Olokoyo (2011) carried out study in Nigeria to examine the lending patterns of commercial banks by analyzing the factors that influence the lending behaviour of commercial banks in Nigeria. The findings of the study showed that bank deposits had the biggest effect on their lending behaviour. Bank deposits are the sources of the cash that banks can rely on disburse loans at attractive interest rates. The key recommendation of the study is that banks should focus on mobilizing deposits because it will increase their lending capacity (Olokoyo, 2011). The lending interest rate was one of the factors examined to analyze whether it influences the commercial bank lending behaviour or not. The study findings confirmed the existence of a functional important relationship between commercial bank lending behaviour and all the specified variables including interest lending rate. The
existence of the functional relationship means interest rate capping will influence the lending pattern of commercial banks especially in cases where the bank lacks the ability to mobilize additional deposits. Interest rate capping limits the revenue that a bank can earn from risky credit, which in turn affects the overall financial performance of the bank. As a result, commercial bank can opt for low credit risk borrowers.

2.4.3 Non-Performing in Developed Nations
An interesting study analysed how the exposure of banks to interest rate risk and the transmission of monetary policy affect their lending patterns (Moreno-Gómez, Lafuente, & Vaillant, 2018). Normally, bank assets tend to be more sensitive to changes in interest rate compared to their liabilities. This means a change in interest rate is likely to influence the amount payable by all the debtors of the bank. As the income gap rises the profit of a bank grows more sensitive to changes in interest rates. The income gap will also determine the interest rates that banks prefer when lending money to businesses and individuals. The findings of the study show that exposure the risk of interest rate will influence the lending channel taken by a commercial bank. Interest rate capping is an example of monetary policy used by many countries to control lending by financial institutions. Interest rate caps can said to increase risk exposure because they limit the measures a commercial bank can apply to securitize a loan. The changes in interest rates can influence the lending channel taken by a commercial bank.

The political effects on the profitability of commercial banks can realized through the effects of the politically instigated monetary policies. Interest rate capping is an example of a monetary policy that is full of political undertones. The justification is that it is needed to protect citizens from overexploitation by commercial banks. The low performance of state owned banks has been associated with the low interest rates charged on loans (Jackowicz, Kowalewski, & Kozlowski, 2013). The findings of the study by Jackowicz et al. (2013) confirms that state owned banks can be used as a political tool, which in turn affects their profitability levels. The introduction of interest caps can be demonstrated by state owned banks as part of the government efforts to prove that is practical and effective. In this case, the changes in interest rates can be used to influence the lending behaviour of commercial banks.
A review study carried out in the United States determined that reliance on low short-term interest rates support the softening of lending standards for businesses and households (Maddaloni & Peydro, 2011). This in turn has resulted to an increase in the appetite that banks have for loans, which in turn increases loan allocation. A rise in loan allocation means a rise in the risks that are facing the bank. On the same note, the use of low interest rates for short term loans leads to high securitization of loans, which makes it easy for banks to allocate loans. Based on the findings of the study, it is clear that the changes in interest rates affect the lending patterns of commercial banks. The only for banks to minimize the impact of interest rates on their lending behaviour is to apply number of measures like offering short term low interest rates and highly securitizing all loans. The move ensures that commercial banks can offer affordable loans to businesses and households without negatively affecting their revenue base. The connection between lending patterns and interest rate caps is a bit complex because it involves a chain of causal events.

2.5 Chapter Summary

Chapter two presents a comprehensive literature review that focuses on the interest rate capping and its relationship to lending patterns of commercial banks, credit uptake and the profitability of commercial banks. Each section contains a critical analysis of many studies in an attempt to find the gaps in study and make clear the knowledge gap that the study intends to fill. Chapter three will present the research methodology, study population, sampling, data collection and data analysis methods.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter presents the research methodology, which includes the research design, sampling techniques, study population, data collection and data analysis methods. A comprehensive descriptive how the research will be carried out is presented in this chapter. The research procedure is presented in details from the selection of the research design to the analysis of the final data.

3.2 Research Design
The research design refers to the strategy that has been selected to facilitate the integration of all the components of a study in logical and coherent way (Bellamy, 2011). It has a significant impact on the efficiency and effectiveness of study. Therefore, vigilance is recommended when selecting the research design for a particular study. A descriptive research design is adopted for the study because it will make it easy to analyze and describe the how interest rate capping has influenced commercial banks with a specific focus on credit uptake and qualification. The aim is to understand to what extent has interest rate capping laws impacted the ability of commercial banks to grant loans and how does it affect the Kenyan economy.

A descriptive research design is used to describe the traits of a population or a particular phenomenon under study (Daniel & Sam, 2015). The selected research design makes it easy to infer the study findings to a larger population, which facilitates the development of appropriate recommendations to solve the study problem. The descriptive research design will help in explaining the factors that influence the relationship between interest rate capping and the qualification for loans offered by commercial banks in Kenya. Both qualitative and quantitative approach is utilized to make sense of the large chunk of secondary and gain insight about the findings of the study. Interest rate capping is the independent variable and the dependent variable is the qualification for loans from commercial banks in Kenya.
3.3 Population and Sampling Design

3.3.1 Population
This includes all the elements, objects or people that a researcher believes are part of the study (Daniel & Sam, 2015). The target population for the study are the 44 licensed commercial banks in Kenya. The data about profitability levels and the rate of loan qualification after the interest rate capping were all obtained secondary sources.

Table 3.1: Target Population Distribution (ensure that all your tables are in APA format)

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Population number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>6</td>
<td>14%</td>
</tr>
<tr>
<td>Tier 2</td>
<td>14</td>
<td>32%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>24</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


3.3.2 Sampling Design

3.3.2.1 Sampling Frame
Sampling frame describes the set of elements from the sample population is selected. It is a list of items that make up the study population. A sampling frame makes it easy to select the portion of the population that can be taken as a representative for the whole. The sampling frame for the studies is the list of all licensed commercial banks in Kenya.

3.3.2.2 Sampling Technique
The study will rely on simple random sampling to select a number of commercial banks that can act as a representative for the entire list. The selection of a subset of the population helps in overcoming the limitations that come with handling large populations, which include data access and handling (Bellamy, 2011). The subset of the population selected for the study included major commercial banks with massive presence all over the country. Data pertaining to the performance, profitability and loan accessibility in all the commercial banks was obtained from the Kenya Bankers Association website and the publicised financial statements from the selected banks.
3.3.2.3 Sample Size
A sample size should be determined based on the nature of the study problem, scope of the study and the amount data needed to generate credible results. The commercial banks in Kenya are divided into tiers depending on the size and scope of operations. The sample size was calculated using the Yamane Formula.

\[
n = \frac{N}{1+N(e^2)} \text{ Where } N \text{ is the population size and } e \text{ is the level of precision.}
\]

\[
n = \frac{44}{1+44(0.05^2)}
\]

= 39

Based on the calculation, the researcher sampled 39 banks. It is not clear you selected the sampling units

3.4 Data Collection Methods
There are two types of data that can be collected in a research namely: primary data and secondary data (Bellamy, 2011). Primary data includes all the data that is obtained from the field while secondary data is obtained from compiled studies, published articles and websites. The study will rely on secondary data that is obtained from the periodic reports by the Kenya Bankers Association and the Kenya Central Bank as well as the quarterly financial statements published by the banks. The compiled data was analyzed to answer all the research questions.

3.5 Research Procedures
A letter of permission from the USIU was delivered to the Kenya Bankers Association to facilitate the collection of data for the purposes of the study. Despite the fact that the study will heavily rely on secondary data, there circumstances where the researcher had to engage top bank officials to understand the way interest rate cap law has influenced the profitability of commercial banks. A pilot study was carried to help identify errors in data selection and handling. The pilot study entailed searching records about the profitability of banks and the data about the overall credit uptake since the introduction of the interest cap law.

3.6 Data Analysis Methods
Data analysis is the process of converting raw data into an organized set of data that is easy to interpret. Both descriptive and inferential statistics was used to summarize the findings
of the study and present visual representations. Mean, mode and frequencies will be utilized to present summary of the collected data. The mean scores show the significance of each variable of the research study. The data from financial statements was separated for easier handling and interpretation. The Statistical Package for Social Sciences (SPSS) was used to produce frequencies, tables and other forms of descriptive statistics. Inferential statistics aided in deriving key implications of the study and the nature of the relationship between the different variables.

3.7 Chapter Summary
Chapter presents a comprehensive description of the research methodology, which entails the research design, sampling techniques, data analysis and data collection methods. The study population has been defined and the sample size calculated. Chapter Four discusses the study findings and results. It included tables and other visual representations of the summarized data.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
This chapter contains a detailed analysis of secondary data collected in the financial statements from both banks and central bank of Kenya as from year 2016 to year 2017 using techniques outlined in chapter three. The main objective of the research was to investigate impact of interest rate capping on qualification for loans granted by commercial banks in Kenya. The study was done to give answers to the following specific objectives; effect of interest rate capping on the profitability, effect of interest rate capping on credit uptake, and relationship between interest rate capping and the lending patterns.

4.2 Response Rate and General Information
In this section, the response rate and background information is provided. It starts with response rate followed by key background information.

4.2.1 Response Rate
The study entailed an analysis of secondary data collected from published financial statements from both banks and the central bank of Kenya for the period 2016 to 2017. The response rate was 100% since all the data sets were available.

4.2.2 General Information
The study gives the general information of the banks and this includes the number of commercial banks, ownership and assets base of the banks, and the effect of interest rate.

4.2.2.1 Number of Commercial Banks
The study sought to understand the number of commercial banks in Kenya. The table indicates the distributions of banks where public commercial banks are represented by 8%, 55% are private commercial banks, and lastly 38% are foreign commercial banks. This is illustrated in the Figure 4.1.
4.2.2.2 Ownership and Asset Base of Commercial Banks

The total net assets in the banking sector stood at Ksh.4.0 trillion as at December 31, 2017. The 22 local private commercial banks and the 3 local public commercial banks accounted for 64.8 percent and 3.5 percent of total net assets respectively. A total of 15 commercial banks were foreign owned and accounted for 31.7 percent of the sector’s assets as indicated in Table 4.1.

Table 4.1: Ownership and Asset Base of Commercial Banks

<table>
<thead>
<tr>
<th></th>
<th>Total Net Assets</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Commercial Banks</td>
<td>139,718</td>
<td>3%</td>
</tr>
<tr>
<td>Private Commercial Banks</td>
<td>2,592,294</td>
<td>65%</td>
</tr>
<tr>
<td>Foreign Commercial Banks</td>
<td>1,270,729</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,002,741</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

4.2.2.3 Employment in the Banking Sector

The number of staffers in the banking sector decreased by 2,790 (8.29%) from 33,693 in December 2016 to 30,903 in December 2017 as indicated below. All staff levels recorded decrease thus leading to an overall decrease in staff levels. This is an indication that there is a consistent improvement in banks’ efficiency as a result of review of business models,
automation of processes and shift from to alternative digital channels in the commercial banks.

Table 4.2: Employment in the Banking Sector

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>10,327</td>
<td>10,298</td>
<td>-0.28%</td>
</tr>
<tr>
<td>Supervisory</td>
<td>6,345</td>
<td>6,188</td>
<td>-2.47%</td>
</tr>
<tr>
<td>Clerical and Secretarial</td>
<td>14,515</td>
<td>12,840</td>
<td>-11.54%</td>
</tr>
<tr>
<td>Support Staff</td>
<td>2,508</td>
<td>1,830</td>
<td>-27.03%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33,695</strong></td>
<td><strong>31,156</strong></td>
<td><strong>-7.54%</strong></td>
</tr>
</tbody>
</table>

4.2.2.4 Liquidity Ratio for Commercial Banks

The banking sector average liquidity ratio as at December 2017 stood at 43.7% as compared to 40.3% registered in December 2016. The increase in the ratio is mainly attributed to a higher growth in total liquid assets compared to the growth in total short-term liabilities. Total liquid assets grew by 16.32% while total short-term liabilities grew by 10.35%. The banking sector’s average liquidity in the twelve months to December 2017 was above the statutory minimum requirement of 20%.

Table 4.3: Liquidity Ratio for Commercial Banks

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Ratio</td>
<td>40.30%</td>
<td>43.70%</td>
<td>3.40%</td>
</tr>
<tr>
<td>Liquidity Assets</td>
<td>25.40%</td>
<td>41.72%</td>
<td>16.32%</td>
</tr>
<tr>
<td>Total short-term liabilities</td>
<td>34.60%</td>
<td>44.95%</td>
<td>10.35%</td>
</tr>
</tbody>
</table>

4.2.2.5 Capital Adequacy Ratio

The study sought to understand the capital adequacy ratio for the commercial banks. Despite the introduction of interest rate capping, the banking sector remained well capitalized with the capital adequacy ratio standing at 17.5% in 2016 and 18.8% in 2017, well above the regulatory requirement of 14.5%. Similarly, the banking sector’s average liquidity ratio in 2017 stood at 43.7% which was well above the minimum regulatory
liquidity ratio of 20%. The banking sector remained profitable by posting a profit before tax of Ksh.133.2 billion in 2017. This is an indication that despite the interest rate capping, the banking sector remained resilient, proof of its ability to withstand cyclical downturns.

![Capital Adequacy Ratio](image)

**Figure 4.2: Capital Adequacy Ratio**

**4.3 Effect of Interest Rate Capping on the Profitability of Commercial Banks**

The study sought to understand the effect of interest rate capping on profitability of commercial banks in Kenya. The results of the study indicated that average liquidity ratio in 2017 stood at 43.7% which was well above the minimum regulatory liquidity ratio of 20%. The banking sector remained profitable by posting a profit before tax of Ksh.147.4 billion in 2016 compared to year 2017 which dropped to 133.2 billion. This is an indication that despite the storm, the banking sector remained resilient, proof of its ability to withstand cyclical downturns. The Kenyan banking sector registered improved financial strength as evidenced by an increase in total assets between 2016 and 2017 supported by growth in investment in government securities.
### Table 4.3: Average Liquidity Ratio and Profit Before Tax

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Liquidity Ratio</td>
<td>40.40%</td>
<td>43.70%</td>
</tr>
<tr>
<td>Profit Before Tax</td>
<td>147.4 Billion</td>
<td>133.2 Billion</td>
</tr>
</tbody>
</table>

#### 4.3.1 Performance of the Commercial Banks

The economic activities in the period to December 2017 in the banking sector registered a decline in performance in the year ended December 2017, the sector recorded a decline of 9.6% in pre-tax profits to Ksh.133.2 billion in December 2017 from Ksh.147.4 billion in December 2016. The decrease in profitability is attributed to a higher decrease in income Ksh.15.7 billion compared to decline in expenses Ksh.1.8 billion.

### Table 4.4: Performance of the Commercial Banks

<table>
<thead>
<tr>
<th></th>
<th>2016 &quot;billion&quot;</th>
<th>2017 &quot;billion&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Income</td>
<td>17.2</td>
<td>15.7</td>
</tr>
<tr>
<td>Interest Expenses</td>
<td>1.96</td>
<td>1.8</td>
</tr>
<tr>
<td>Pre-tax profits</td>
<td>147.4</td>
<td>133.2</td>
</tr>
</tbody>
</table>

#### 4.3.2 Interest Capping and Profitability

The study sought to determine the impact of profitability for the commercial banks. This was done by highlighting profit before tax, profit after tax, and relationship among interest capping and profitability of commercial banks.

The results of the study indicated that Tier III banks were the most affected in terms of profit before tax and the decline in profits seem to accelerate every quarter profit before tax declined in June 2016 from 34% to negative 12% in June 2017. This erodes the banks’ ability to build capital flows through retained earnings. Tier II banks have been on recovery path in post-caps period, perhaps due to the ongoing bank mergers and acquisitions in the
banking industry where there was an increase from negative 48% in June 2016 to 0% in June 2017 as shown in the table below.

The findings of the study showed that Tier III and Tier II banks depleted their reserves or did not have enough profits to shore up their capital base after the caps were introduced as indicated in the Table 4.5. Tier three banks decreased their profit before tax from negative 5% in June 2016 to negative 74% in June 2017 attributable to acquisition of two banks in the small peer group by a large and a medium peer group bank in 2017.

Table 4.5: Profits before Tax in the Banking Industry

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>22%</td>
<td>34%</td>
<td>38%</td>
<td>32%</td>
<td>-10%</td>
<td>-12%</td>
</tr>
<tr>
<td>Tier 2</td>
<td>26%</td>
<td>23%</td>
<td>10%</td>
<td>-32%</td>
<td>-48%</td>
<td>-45%</td>
<td>-44%</td>
<td>-5%</td>
<td>0%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>2%</td>
<td>10%</td>
<td>-8%</td>
<td>-15%</td>
<td>-5%</td>
<td>-11%</td>
<td>-24%</td>
<td>-54%</td>
<td>-74%</td>
</tr>
<tr>
<td>All</td>
<td>8%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>-11%</td>
<td>-12%</td>
</tr>
</tbody>
</table>

4.3.2.1 Profit After Tax for Commercial Banks

Table 4.6 shows that the banking sector registered a decrease in profitability between December 2016 and December 2017. As shown in the table, profit before tax decreased by 9.6% from Ksh.147.4 billion in December 2016 to Ksh.133.2 billion in December 2017. The decrease in profitability was attributed to a higher decrease in income compared to a marginal decrease in expenses.

The results of the study showed that commercial banks income declined by 3.12% in the period ended December 2017 whereas expenses marginally decreased by 0.50% over the same period. The large peer group accounted for 80.78% of the total pre-tax profit, an increase from 78.6% recorded in 2016. The medium peer group proportion of total pre-tax profit declined to 20.75% from 21.20% due to 3 banks making losses in 2017 as compared to 2 banks in 2016. The small peer group proportion of total pre-tax profit decreased from 2.2% in 2016 to negative 1.53 percent in 2017, attributable to 8 banks making losses in 2017 as compared to 5 banks in 2016.
Table 4.6: Profit After Tax for Commercial Banks

<table>
<thead>
<tr>
<th>Profit After Tax</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>80.8%</td>
<td>78.6%</td>
</tr>
<tr>
<td>Tier 2</td>
<td>20.8</td>
<td>21.2%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>-1.53%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

4.3.3 Correlation Analysis between Profitability and Interest Rate

The study used correlation to establish the relationship between profitability and interest rate for commercial banks. When \( r = (+) 1 \), it indicates perfect positive correlation and when it is \((-) 1\) it indicates a negative correlation. The findings of the study indicated that there was a significant weak positive correlation between interest rate and profitability for the commercial banks \((r=.452, p=.003)\). Therefore, increase of interest rate results to increase of profitability of commercial banks.

Table 4.7: Correlation Analysis between Profitability and Interest Rate

<table>
<thead>
<tr>
<th></th>
<th>Profitability</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>40</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>Pearson Correlation</td>
<td>.452**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>40</td>
</tr>
</tbody>
</table>

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

4.3.4 Regression Analysis between Profitability and Interest Rate

The independent variable that was studied seeks to explain 18.3% of interest rate charged by commercial banks is represented by the adjusted R-square. This therefore means that other factors not studied in this study contribute 81.7% of interest rate of the commercial banks in Kenya.
Table 4.8: Model Summary for Profitability and Interest Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.452&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.204</td>
<td>.183</td>
<td>.21271</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Profitability

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how interest rate influence of profitability of commercial banks in Kenya. The F-calculated at 5 Percent level of significance is 9.738. This shows that the overall model was significant. This study ran the procedure of obtaining the coefficients, and the results were as shown on the Table.

Table 4.9: ANOVA Analysis for Profitability and Interest Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.441</td>
<td>1</td>
<td>.441</td>
<td>9.738</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.719</td>
<td>38</td>
<td>.045</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.160</td>
<td>39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate
b. Predictors: (Constant), Profitability

According to the regression equation established, the constant at zero profitability of commercial banks is -0.055 meaning this is the value when profitability has negative influence on interest rate. A unit increase in profitability will lead to a 45.2% increase on interest rate of banks. The p-value of 0.003 which is less than 0.05 indicates that profitability of bank is statistically significant determinant of profitability. The resulting equation for the study is; Interest Rate = -0.055 + 3.083 Profitability of Commercial Banks

Table 4.10: Coefficients for Profitability and Interest Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.055</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>3.083</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate
4.4 Effect of Interest Rate Capping on Credit Uptake

The study sought to determine the effect of interest rate capping on credit uptake by the customers in the commercial banks. This is reported in terms of average loan size by bank Tier, size of mortgage portfolio, and mortgage loan characteristics.

4.4.1 Average Loan Size by Bank Tier

Table 4.11 shows that on average, overall loan size in the banking sector grew by 36.4% between September 2016 and June 2017, there are wide variations across bank categories. The large banks were the main drivers with a growth of 42.4% followed by small banks at 21.3% over the same period. The medium bank’s average loan size grew by 2.0%. The rapid increase in average loan size by the large banks reflects the reluctance of large banks to lend to sections of the population which are perceived to be riskier.

Table 4.11: Average Loan Size by Bank Tier

<table>
<thead>
<tr>
<th>Bank Categories</th>
<th>Sep-16</th>
<th>Dec-16</th>
<th>Jan-17</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier I</td>
<td>278</td>
<td>299</td>
<td>368</td>
<td>375</td>
<td>376</td>
<td>382</td>
<td>396</td>
<td></td>
<td>42.4%</td>
</tr>
<tr>
<td>Tier II</td>
<td>1731</td>
<td>1796</td>
<td>1685</td>
<td>1690</td>
<td>1730</td>
<td>1769</td>
<td>1708</td>
<td>1765</td>
<td>2.0%</td>
</tr>
<tr>
<td>Tier III</td>
<td>1665</td>
<td>1738</td>
<td>2025</td>
<td>2099</td>
<td>1735</td>
<td>2078</td>
<td>2058</td>
<td>2020</td>
<td>21.3%</td>
</tr>
<tr>
<td>All Banks</td>
<td>402</td>
<td>433</td>
<td>522</td>
<td>530</td>
<td>519</td>
<td>534</td>
<td>535</td>
<td>548</td>
<td>36.3%</td>
</tr>
</tbody>
</table>

4.4.2 Size of Mortgage Portfolio

The value of mortgage loan assets outstanding increased from Ksh.219.9 billion in December 2016 to Ksh.223.2 billion in December 2017, representing a growth of Ksh.3.3 billion or 1.5% due to increased appetite for home ownership as opposed to rentals. There were 26,187 mortgage loans in the market in December 2017 up from 24,059 in December 2016 an increase of 2,128 loan accounts or 8.8%. The average mortgage loan size increased from Ksh.9.1 million in 2016 to Ksh.10.9 million in 2017 due to increased property prices. Almost all banks were offering mortgage loans for both their staff and customers. However, the number of institutions offering mortgages to customers were 31 in 2017 as compared to 35 in 2016. The decrease in the number of commercial banks offering mortgage loans is attributable to acquisition of two banks while two other banks following commercial decisions stopped offering mortgage loans.
Table 4.12: Size of Mortgage Portfolio

<table>
<thead>
<tr>
<th></th>
<th>2017 'Billion'</th>
<th>2016 'Billion'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage Loan Assets</td>
<td>Ksh. 223.2</td>
<td>Ksh.219.9</td>
</tr>
<tr>
<td>Mortgage Loans</td>
<td>Ksh. 26187</td>
<td>Ksh. 24059</td>
</tr>
</tbody>
</table>

4.4.3 Mortgage Loan Characteristics

As indicated in Table 4.13, the interests rate charged on mortgages on average was 13.57% as compared to 18.7% average in 2016. This was mainly due to interest rate capping which became effective on September 14, 2016. In the year 2017 78.4% of mortgage loans were on variable interest rates basis compared to 62.1% in 2016. Loan to value was pegged below 90% by majority of the banks in 2016 and 2017. The average loan maturity was 11.9 years with minimum of 5 years and a maximum of 25 years in 2017 as compared to average loan maturity of 12.0 years with a minimum of 5 years and a maximum of 25 years in 2016. Based on the mortgage market constraints, banks identified high cost of housing units, high cost of land for construction, high incidental cost and difficulties with property registration as the major impediments to the growth of their mortgage portfolios as opposed to 2016 where low income levels was cited as the major impediments.

Table 4.13: Mortgage Loan Characteristics how about 2018?

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate on Mortgage Loans</td>
<td>13.57%</td>
<td>18.70%</td>
</tr>
<tr>
<td>Variable Interest Rate</td>
<td>78.40%</td>
<td>62.10%</td>
</tr>
<tr>
<td>Average Loan Maturity</td>
<td>11.9 Years</td>
<td>12 Years</td>
</tr>
</tbody>
</table>

4.4.4 Correlation between Credit Uptake and Interest Rate

Correlation Coefficient (simply r) was used to establish the relationship between interest rate and credit uptake. When $r = (+) 1$, it indicates perfect positive correlation and when it is $(-) 1$ it indicates a negative correlation. The results show a significant positive correlation between interest rate and credit uptake for the commercial banks ($r=.684; p=.000$).

Table 4.14: Correlation between Credit Uptake and Interest Rate
**. Correlation is significant at the 0.01 level (2-tailed).

### 4.4.5 Regression Analysis between Credit Uptake and Interest Rate

Regression analysis was employed to test the relationships in the model. The regression method was used to determine the effect of interest rate and credit uptake in the commercial banks in Kenya. The adjusted R-squared of interest rate explains 45.4% of credit uptake within the commercial banks. This therefore means that other factors not studied in this study contribute 54.6% of interest uptake of the commercial banks in Kenya.

**Table 4.15: Regression Analysis between Credit Uptake and Interest Rate**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.684a</td>
<td>.468</td>
<td>.454</td>
<td>.09597</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Interest Rate

On the statistical significance, Table 4.12 indicate that F-value is (1, 38) =33.444, p-value (.000) <.005 an indication that the model is a good fit therefore significant in explaining interest rate capping on credit uptake in commercial banks.

**Table 4.16: ANOVA between Interest Rate and Credit Uptake**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.308</td>
<td>1</td>
<td>.308</td>
<td>33.444</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.350</td>
<td>38</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.658</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate  
b. Predictors: (Constant), Credit Uptake

The regression co-efficient in the Table 4.13 shows a constant value of 0.025, showing that a positive unit measure of credit uptake that interest capping in the commercial banks is
A unit increase in credit uptake will lead to a 68.4% increase on interest rate of banks. The resulting equation for the study is; Interest Rate = 0.025 + 0.450 Credit Uptake.

Table 4.17: Coefficients between Credit Uptake and Interest Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.025</td>
<td>.033</td>
</tr>
<tr>
<td>Credit Uptake</td>
<td>.450</td>
<td>.078</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate

4.5 Relationship between Interest Rate Capping and Lending Patterns

The capping of interest rates was mainly anchored on the high spreads between lending rates and deposit rates and the resulting high profitability in the banking sector. The growth in loan applications was expected following reduction in interest rates from the market levels to the capped level- thus those potential borrowers who could not have thought of seeking loans because of high interest rates opted to apply. The sections present the demand for the loans in the market, average loan size, treasury bill rate, and average lending rates.

4.5.1 Demand for Loans

The findings of the study showed that the interest rate capping law, the demand for loans witnessed temporary increase as shown in Figure 4.3. The reduction of interest rate to 14% after the interest rate capping, resulted in increased demand number of loan applications. In the first three months of interest rate capping the number of loan applications increased by 20%. As shown, between December 2016 and April 2017, the growth of loan applications declined to 2%. This was resulted by decrease in commercial bank decrease of their profits margins.
4.5.2 Average Loan Size

After the interest rate capping law in September 2016, the number of loan accounts continued to decline resulting in rising average loan size. As shown in Figure 4.4, the average loan size increased from 20% to 37% between October 2016 and June 2017 respectively. The rising value of loan size compared to the reduced number of loan accounts reflects lower access to small borrowers and larger loans to more established firms after the imposition of the caps.

![Average Loan Size](image)

**Figure 4.4: Average Loan Size**

4.5.2 Treasury Bill Rate

The interest rates except the interbank rate remained stable in 2017 as shown in Figure 4.5. The average 91-day Treasury bill rate declined slightly to 8.37% in 2017 compared with 8.62% in the previous year, while the average 182-day Treasury bill rate decreased to 10.42% from 10.9% in 2016. Stability in the interest rates for government securities was a reflection of the fact that implementation of government domestic borrowing program supported market stability. The summary on treasury bill rate is indicated in the Figure 4.5.
4.5.2 Average Lending Interest Rates

Commercial banks’ average lending interest rates remained stable within the interest rate caps. The average commercial bank lending rate declined to 13.67% in 2017 compared to 16.59% in 2016. The interest rate capping law was affected in mid-September 2016. Average commercial banks’ deposit rate increased to 8.22% in 2017 from 7.07% in 2016, also driven by the interest rate capping law. The findings of the study is indicated in the Figure 4.6 below.

Figure 4.5: Treasury Bill Rate

Figure 4.6: Average Lending Interest Rates

4.5.3 Correlation between Lending Patterns and Interest Rate

The findings of the study indicated a correlation between lending patterns and interest rate for the commercial banks. Table 4.18 shows a significant positive correlation between
interest rate and lending patterns for the commercial banks ($r=0.849; p=0.000$). Therefore, it can be deduced from the results that interest rate cap led to increase in the lending patterns by the commercial banks.

### Table 4.18: Correlation between Lending Patterns and Interest Rate

<table>
<thead>
<tr>
<th></th>
<th>Interest Rate</th>
<th>Lending Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>40</td>
</tr>
<tr>
<td>Lending Patterns</td>
<td>Pearson Correlation</td>
<td>.849**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>40</td>
</tr>
</tbody>
</table>

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

#### 4.5.4 Regression Analysis between Lending patterns and Interest Rate

The coefficient of determination which is the R-squared of interest rate explains 72.1% of lending patterns for the commercial banks as indicated in the Table 4.19. This therefore means that other factors not studied in this study contribute 27.9% of lending patterns of the commercial banks in Kenya.

### Table 4.19: Regression Analysis between Lending patterns and Interest Rate

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.849a</td>
<td>.721</td>
<td>.714</td>
<td>.06947</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Lending Patterns

The statistical significance which indicates a high F-value of $(1, 38) = 98.353$, and p-value $(.000) < .005$ an indication that the model is a good fit therefore significant in explaining interest rate capping on lending patterns by the commercial banks.

### Table 4.20: ANOVA between Interest Rate and Lending Patterns

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>.475</td>
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<tr>
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<td>Residual</td>
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<td></td>
<td>Total</td>
<td>.658</td>
<td>39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate

b. Predictors: (Constant), Lending Patterns
The regression co-efficient in the Table 4.21 shows a constant value of 0.130, showing that a positive unit measure of lending patterns that interest capping in the commercial banks is 0.130. A unit increase in lending patterns will lead to a 84.9% increase on interest rate of banks. The resulting regression equation for the study is; Interest Rate = 0.130 + 0.948 Lending patterns for Commercial Banks.

Table 4.21: Coefficients between Lending Patterns and Interest Rate

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
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<td>1 (Constant)</td>
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<tr>
<td>Lending Patterns</td>
<td>.948</td>
<td>.096</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate

4.6 Chapter Summary

The study has provided the findings of the study gathered from financial statements and reports on the impact of interest rate capping on qualification for loans granted by commercial banks. The findings indicated a significant positive correlation between interest rate and credit uptake for the commercial banks and significant positive correlation between interest rate and lending patterns for the commercial banks. Chapter five will provide the detailed information on the discussions, conclusions, and recommendations of the study on each specific objective.
CHAPTER FIVE

5.0 SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction
The aim of the study was to establish the effect of interest rate capping on qualification for loans granted by commercial banks in Kenya. The study discusses the findings of the study in chapter four in relation to the literature review of the study, it also gives the conclusions and recommendations of the study for the two years before and after the interest rate capping law came into effect.

5.2 Summary
The general objective of the study was to determine the impact of interest rate capping on qualification for loans granted by commercial banks in Kenya. The study used the following specific objective; to analyse the effect of interest rate capping on the profitability, to investigate the effect of interest rate capping on credit uptake and examine the relationship between interest rate capping and the lending patterns in commercial banks in Kenya. The study used descriptive research design because it made it easy to analyse and describe the how interest rate capping has influenced commercial banks with a specific focus on credit uptake and qualification. The selected research design made it easy to infer the study findings to a larger population, which facilitated the development of appropriate recommendations to solve the study problem. The target population for the study was the 44 licensed commercial banks in Kenya. The data about profitability levels and the rate of loan qualification after the interest rate capping were all obtained. The study relied on secondary data that was obtained from the periodic reports by the Kenya Bankers Association and the Kenya Central Bank as well as the quarterly financial statements published by the banks. The compiled data was analysed to answer all specific objectives.

The study adopted the use of both descriptive and inferential statistics which was used to summarize the findings of the study. The data from financial statements was separated for easier handling and interpretation. The Statistical Package for Social Sciences version 24 was used to produce frequencies, tables and other forms of descriptive statistics. Inferential statistics aided in deriving key implications of the study and the nature of the relationship between the different variables of the study.
The findings of the study showed that the distributions of banks where public commercial banks were represented by 8%, 55% were private commercial banks, and 38% are foreign commercial banks. The total net assets in the banking sector stood at Ksh.4.0 trillion as at December 31, 2017. The 22 local private commercial banks and the 3 local public commercial banks accounted for 64.8% and 3.5% of total net assets respectively. A total of 15 commercial banks were foreign owned and accounted for 31.7 percent of the sector’s assets. All staff levels recorded decrease thus leading to an overall decrease in staff levels. This is an indicator of the consistent improvement in banks’ efficiency as a result of review of business models, automation of processes and shift from to alternative digital channels in the commercial banks.

The results of the study for the banking sector indicated an increase in the ratio which was mainly attributed to a higher growth in total liquid assets compared to the growth in total short-term liabilities. Total liquid assets grew by 16.32% while total short-term liabilities grew by 10.35%. The banking sector’s average liquidity in the twelve months to December 2017 was above the statutory minimum requirement of 20%. The study sought to understand the capital adequacy ratio for the commercial banks. The banking sector remained well capitalized with the capital adequacy ratio standing at 17.5% in 2016 and 18.8% in 2017, well above the regulatory requirement of 14.5%. The banking sector remained profitable by posting a profit before tax of Ksh.133.2 billion in 2017. This is an indication that despite the interest rate capping, the banking sector remained resilient, proof of its ability to withstand cyclical downturns.

5.3 Discussion

5.3.1 Effect of Interest Rate Capping on the Profitability

Interest rate capping describes the introduction of limitations that control the extent of interest rate fluctuation in the market. It is a measure taken by governments to protect consumers from commercial banks and other financial institutions. Interest rate capping leads to a hybrid interest rate that is allowed to fluctuate according to market conditions but cannot pass a maximum threshold (Maimbo & Gallegos, 2014). The results of the findings showed that the banking sector registered a decline in performance in the year 2017; the sector recorded a decline of 9.6% in pre-tax profits. Maigua and Mouni (2016) opined that it is important to note that the effect of interest rate capping on the economy are varied, which means in some cases the effect can be negative. The decrease in profitability is
attributed to a higher decrease in income compared to decline in expenses. The fixed component of the interest rate is bestowed by law and the variable part depends on the conditions of the product, amount of loan, and the repayment period (Khan & Sattar, 2014).

There was continuous decline in profitability of Tier III banks accelerated in the post-caps period. Tier III banks were the most affected in terms of profit before tax and the decline in profits seem to accelerate every quarter. This erodes the banks’ ability to build capital flows through retained earnings. Tier II banks have been on recovery path in post-caps period, perhaps due to the ongoing bank mergers and acquisitions in the banking industry. Small and medium size banks depleted their reserves or did not have enough profits to shore up their capital base after the caps were introduced. Link appropriately According to Erickson (2018), noted that interest rates can influence the profitability of banks both directly and indirectly. Low interest rates increase the demand for loans, which means increases the interest earnings for commercial banks. High interest rates discourage borrowing, which leads to low interest earnings for banks. Albulescu (2015) emphasizes the importance of interest rates and the potential negative effects of excessive interest rate caps. The financial performance of an organization is determined by examining the return on assets, which provides a clear explanation of how the management utilizes assets to generate revenue.

The results established that there exists a relationship between profitability and interest rate for commercial banks. There was a significant weak positive correlation between interest rate and profitability for the commercial banks. The independent variable explains 18.3% of interest rate for commercial banks is represented by the adjusted R-square. The significance indicated a statistically significant and in predicting how interest rate influence of profitability of commercial banks in Kenya. According to the regression equation established, constant at zero profitability of commercial banks is -0.055 meaning this is the value when profitability has negative influence on interest rate. The results is supported by Okoth and Kusa (2013) where they pointed that the profitability of banks can also be influenced by the convenience associated with the lending programs. The implementation of too many standards that determine loan qualification is likely to reduce the demand for loans from that particular bank. The low demand for loans leads to low interest rates, which negatively influences the interest rate income (Murthy, Mohammed, Anthony & Devi,
It explains why banks strive to make it easy for people to access loans by eliminating standards that do not affect a significant impact on the credit risk.

The findings of the study are supported by Rasiah (2010) who pointed out that the profitability of commercial banks increases with increase in interest rates. However, the increase in earning might not persist in the long run because high interest rates are bound to reduce the demand for loans in the long run. The findings of the study provide a clear overview of the range of factors that influence the profitability of commercial banks. Expand appropriately Operational efficiency is a key factor because it helps reduce the overhead costs and maximize productivity. Hymore Boahene, Dasah, and Agyei, (2012), asserted that the negative effects of interest rate capping can discourage financial inclusion and reduce lending rates. Interest rate capping has a heavier effect on commercial banks that rely heavily interest rate incomes as a source of revenue.

The findings of the study is supported by that of Mihai-Yiannaki and Rios-Morales, (2015) where they noted that the Chinese government made the drastic decision to cut interest rates for both deposits and loans for all financial institutions. The loosening of interest rate floating range for financial institutions led to drastic changes in the financial sector. The findings of the study indicated that interest rates have a significant effect on the profitability of financial institutions, stock volatility and stock price. It is imperative to note that despite the strong correlation between stock price and interest rates there are other factors should be considered.

The results of the study disagree with the findings of Kavwele, Ariemba, and Evusa, (2018) whose findings of the study showed that interest rate capping had a negative impact on the performance of commercial banks in Kenya because the decrease in PBTEI was found to be statistically significant. The introduction of interest rate capping led to a significant decrease in interest rate income to the point that even an increase in non-interest rate income did little to change the situation. This outcome testifies to the fact that many commercial banks in Kenya rely heavily on interest rates. The introduction of interest rate caps significantly reduced their main source of income. Similarly, Erickson (2018) investigated the effects of interest rate capping on the profitability of commercial banks with a specific focus on the Kenya Commercial Bank. The findings of the study show that interest rate capping has negatively affected the profitability of commercial banks. The loss of a significant source of revenue prompted banks to apply cost cutting measures, which include
the closure of some unprofitable branches. The massive laying off of staff was considered to be one of the effects of introducing interest rate caps. The findings of the study confirm that commercial banks in Kenya tend to rely heavily on interest rates as the major source of revenue.

5.3.2 Effect of Interest Rate Capping on Credit Uptake

The findings of the study showed that the average overall loan size in the banking sector grew from the year 2016 to year 2017 and there were wide variations across bank categories. The large banks were the main drivers with a growth of 42.4% followed by small banks at 21.3% over the same period. The medium bank’s average loan size grew by 2.0%. This is supported by the findings of Bordo, Duca, and Koch, (2016) who noted that economic policy uncertainty tends to increase the risks associated with credit uptake and negatively affects loan size offered by commercial banks. Chi and Li (2017) pointed out that reduction of loan sizes by commercial banks to minimize the credit risks. The reduction of loan size might help because it means a significant number of borrowers can still access loans at affordable rates. Increasing interest rates to handle the risks that come with economic policy uncertainty might not be effective in the long run.

The results of the study indicated that rapid increase in average loan size by the large banks reflects the reluctance of large banks to lend to sections of the population which are perceived to be riskier. Khan, Tahir, and Umer, (2015) pointed that interest rates, inflation and other financial policies are among the external factors that directly impact the level of profitability of commercial banks and other financial institutions. According to McClain and Hylton Meier, (2013), found that the use of cap and trade will increase the cost of business and turn into a burden for consumers and businesses. The prevailing proposals recommend the utilization of cost-effective measures that will ensure businesses and consumers do not shoulder a burden that is too heavy. The use of interest rate caps can turn into a heavy burden for both consumers and financial institutions. It has a significant impact on the level of investments, savings, and spending in an economy. Link to what already exist

The relationship between interest rate and credit uptake showed a significant positive correlation between interest rate and credit uptake for the commercial banks. The results of regression analysis were used to determine the effect of interest rate and credit uptake in the commercial banks in Kenya. The coefficient of determination which is the R-squared
of interest rate explains 46.8% of credit uptake within the commercial banks. The F-value indicated that the model is a good fit therefore significant in explaining interest rate capping on credit uptake in commercial banks. Link to what already exist as reviewed in chapter two

The finding of the study is supported by the findings of Apanga, Appiah, and Arthur, (2016) who asserted that the implementation of interest rate caps can help increase the level of transparency the terms of loans. Financial institutions can opt to increase the overall cost of loan allocation by raising commissions and other overhead costs to make up for the amount lost when interest rate is reduced (Apanga et al., 2016). The improvement of transparency in loan allocation terms can be considered a positive effect of interest caps because it enhances accountability and minimizes corruption. Another study that supports the results are that of Uwuigbe, Ranti, and Babajide, (2015) analysed credit management and overall bank performance of banks that are listed. The study disagreed with that of Chi and Li (2017) whose findings indicated that the relationship between economic policy uncertainty, lending decisions and credit risks by observing commercial bank. The findings of the study show that economic policy uncertainty tends to increase the risks associated with credit uptake and negatively affects loan size offered by commercial banks.

The findings of the study confirmed that the ratio of performing and non-performing loans had a significant effect on the overall performance of banks. Non-performing loans count as losses from the perspective of the bank because they have to incur additional costs to get back the principal sum. Boshkoska (2013) noted that the effect can be either positive or negative depending on how commercial banks respond to the interest rate cap. Banks can opt to cut costs, diversify sources of revenue, and offer favourable interest rates for all classes of borrowers. Alternatively, the bank can opt to stick to the maximum interest rate and focus on lending borrowers that come with minimal risks to protect itself from the negative effects of non-performing loans.

On the other hand, performing loans mean profits for the bank because of the interest charged. Commercial banks examine all potential risks before disbursing loans to reduce the risk of having a high number of non-performing loans. Offering high interest rates is one of the control measures that commercial banks rely on to reduce loan risks. The introduction of interest rate cap has proven to push commercial banks to opt for loans that have fewer risks. The findings of the study is supported by that of Raknerud and Vatne
(2013) where they noted that the rate of interests on loans has a direct impact on credit uptake because it determines the overall cost of a loan. Banks rely on several factors like repayment period, financial stability of the lender and the state of the economy to analyse the risks associated with a particular loan. The level of risks aids in determining the interest rate to ensure that bank is protected. High interest rate on loans discourages uptake of credit by many members of the economy. The study is collaborated by the findings of Uwuigbe, Ranti, and Babajide, (2015) in which they analysed credit management and overall bank performance of banks that are listed in Nigeria. The findings of the study confirmed that the ratio of performing and non-performing loans had a significant effect on the overall performance of banks. The ratio between unsecured and secured loans and the performance of banks was not significant.

5.3.3 Relationship between Interest Rate Capping and Lending Patterns

The results of the study showed that the interest rates except the interbank rate remained stable in 2017. The average 91-day Treasury bill rate declined slightly in 2017 compared with in the previous year, while the average 182-day Treasury bill rate decreased to 10.42% from 10.9% in 2016. Stability in the interest rates for government securities was a reflection of the fact that implementation of government domestic borrowing program supported market stability. Commercial banks’ average lending interest rates remained stable within the interest rate caps. The average commercial bank lending rate declined to 13.67% in 2017 compared to 16.59% in 2016. The relationship between interest rate capping and lending patterns in commercial banks can be direct or indirect. For example, high interest rates can make commercial banks to focus on lending large organizations and governments and shun small and medium enterprises. Interest rates can reduce demand for credit and by extension influence the lending patterns adopted by commercial banks to maximize revenue (Udell, 2008).

The results of the study showed that interest rate capping law was affected in mid-September 2016. Average commercial banks’ deposit rate increased to 8.22% in 2017 from 7.07% in 2016, also driven by the interest rate capping law. According to Gambarcorta and Marques-Ibanze (2011), their findings indicated that there was a significant effect that loans have on the financial performance of commercial banks. Loans directly influence the core capital of a bank, which is why all credit risks should be analysed to minimize risks before allocating loans.
The findings of the study showed that a significant positive correlation between interest rate and lending patterns for the commercial banks. The coefficient of determination which is the R-squared of interest rate explains 72.1% of lending patterns for the commercial banks. The statistical significance which indicated a high F-value an indication that the model was a good fit therefore significant in explaining interest rate capping on lending patterns by the commercial banks. According to the findings of the study by Jackowicz et al. (2013) confirms that introduction of interest caps can be demonstrated by state owned banks as part of the government efforts to prove that is practical and effective. In this case, the changes in interest rates can be used to influence the lending behaviour of commercial banks. Similarly, Gambarcorta and Marques-Ibanze (2011) noted that non-performing loans eat into the capital of the bank. Effective internal controls and comprehensive credit risk analysis framework are some of the solutions needed to minimize credit risks and reduce the number of non-performing loans.

The findings of the study is supported by the results of Malede, (2014) who analyzed credit risk, bank size, interest rate, investment deposit, gross domestic product (GDP), reserve cash, and liquidity ratio. The findings of the study indicate that there is a significant relationship between GDP, bank size, liquidity ratio and commercial bank lending. Interestingly, there was no significant relationship between cash reserve, interest rate, investment, deposit and commercial bank lending. It might imply that during the period of the study there were no major changes in the interest rates offered by the commercial banks. Similarly, Selma and Jouini (2013) there are number of micro and macro factors that influence the level of non-performing loans in an economy. The macroeconomic variables analyzed during the study include the GDP growth rate, real interest rate, and the level of unemployment. The study findings confirmed that GDP growth rate and the return on bank assets varies negatively with the number of non-performing loans while it varies positively with the level of unemployment, real interest rates, and the lack of loan reserves. The real interest rate is affected by the introduction of interest rate caps.

The findings of the study are supported by that of Olokoyo (2011) whose findings showed that bank deposits had the biggest effect on their lending behaviour. The study findings confirmed the existence of a functional important relationship between commercial bank lending behaviour and all the specified variables including interest lending rate. The existence of the functional relationship means interest rate capping will influence the
lending pattern of commercial banks especially in cases where the bank lacks the ability to mobilize additional deposits. Interest rate capping limits the revenue that a bank can earn from risky credit, which in turn affects the overall financial performance of the bank. As a result, commercial bank can opt for low credit risk borrowers.

The results of Maddaloni and Peydró, (2011) indicated that an increase in the appetite that banks have for loans, which in turn increases loan allocation. A rise in loan allocation means a rise in the risks that are facing the bank. On the same note, the use of low interest rates for short term loans leads to high securitization of loans, which makes it easy for banks to allocate loans. Based on the findings of the study, it is clear that the changes in interest rates affect the lending patterns of commercial banks. The only for banks to minimize the impact of interest rates on their lending behaviour is to apply number of measures like offering short term low interest rates and highly securitizing all loans.

5.4 Conclusions

5.4.1 Effect of Interest Rate Capping on the Profitability
From the study results it was established that bank interest rate statistically, strongly and significantly correlated to profitability of commercial banks as it had a positive relationship with the dependent variable. This reveals that bank interest rate is an important factor that can enhance financial performance of commercial banks. Interest rates make up for a significant portion of the profits that commercial banks especially the smaller banks. The lack of diversification in investments is part of the reasons why the introduction of interest rate caps had a significant impact on the profitability of many commercial banks.

5.4.2 Effect of Interest Rate Capping on Credit Uptake
From the study results it was established that credit uptake by customers in the banks is statistically, strongly and significantly correlated to interest rate as it had a positive relationship with the dependent variable. This reveals that credit uptake is an important factor that can enhance performance of commercial banks given that interest income makes up a significant percentage of commercial banks’ income.

5.4.3 Relationship between Interest Rate Capping and Lending Patterns
The study concludes that there was a significant positive relationship between interest rate and lending patterns for the commercial banks. Commercial banks’ average lending interest rates remained stable after the introduction of the interest rate caps law. The average
commercial banks’ deposit rate increased from the year 2016 to 2017 driven by the interest rate capping law. The law stipulated a floor on the deposit rates at 70% of the Central Bank Rate. This encouraged savings among the commercial bank clients.

5.5 Recommendations
5.5.1 Recommendations for Improvement
5.5.1.1 Effect of Interest Rate Capping on the Profitability
The study recommends that the central bank of Kenya should opt for long term solutions to resolve the issue of money supply as the use of interest rate capping is detrimental to credit uptake by customers from the commercial banks evidenced by the continued decline in the loan growth and an increase in the non-performing loans.

5.5.1.2 Effect of Interest Rate Capping on Credit Uptake
The study recommends that central bank of Kenya needs to implement a framework that guides credit administration. Effective internal controls system should be put in place which is necessary for the banks to minimize credit risks and improve credit uptake. The key goal of credit risk management is to assess all the variables and maximize the adjusted rate of return for the bank. It is done by making sure that the bank is not exposed to many credit risk elements.

5.5.1.3 Relationship between Interest Rate Capping and Lending Patterns
The central bank of Kenya should create framework adopted from other countries to guide on the interest so that it can determine the best policies in guiding the framework towards the interest rate capping law. They should carry out the regulations of the law, supervision and control of the financial sector.

5.5.2 Recommendation for Further Studies
The study recommends for further studies on the main determinants of financial performance for the commercial banks. The study should look into the internal and external determinants that influence the financial performance of commercial banks which are; management control like liquidity, loans, investments, non-performing loans and operational costs. The external determinants are market growth, inflation rates, market growth, and interest rates in the economy.
REFERENCES


APPENDICES
APPENDIX 1: LIST OF ORGANIZATIONS USED

Tier 1 Commercial Banks

1. Standard Chartered Bank
2. Barclays Bank
3. Cooperative Bank of Kenya
4. Commercial Bank of Africa (CBA)
5. Equity Bank
6. Kenya Commercial Bank (KCB)

Tier 2 Commercial Banks

1. National Bank
2. Bank of Africa
3. Family Bank
4. Diamond Trust Bank
5. Eco Bank
6. I&M Bank

Tier 3 Commercial Banks

1. Fidelity Bank
2. Development Bank
3. Paramount Universal Bank
4. ABC Bank
5. Jamii Bora Bank
6. Consolidated and Development Bank
## APPENDIX 2: GROSS LOANS AND ADVANCES

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<tr>
<th>Institution</th>
<th>Dec-16</th>
<th>Dec-17</th>
</tr>
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<tbody>
<tr>
<td>KCB Bank Ltd</td>
<td>373,031.31</td>
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<td>Bank of India</td>
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<td>Bank of Baroda (K) Ltd</td>
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<td>Commercial Bank of Africa Ltd</td>
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<td>HFC Ltd</td>
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<td><strong>Total</strong></td>
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# APPENDIX 3: GROSS NON-PERFORMING LOANS

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<tbody>
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<td>1 KCB Bank Ltd</td>
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<td>2 Standard Chartered Bank (K) Ltd</td>
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<td>3 Barclays Bank of Kenya Ltd</td>
<td>11,472</td>
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<td>4 Bank of India</td>
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<td>5 Bank of Baroda (K) Ltd</td>
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<td>6 Commercial Bank of Africa Ltd</td>
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<td>7 Prime Bank Ltd</td>
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<td>8 Co-operative Bank of Kenya Ltd</td>
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<td>9 National Bank of Kenya Ltd</td>
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<td>10 M-Oriental Commercial Bank Ltd</td>
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<td>12 Habib Bank A.G. Zurich</td>
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<td>13 Middle East Bank (K) Ltd</td>
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<td>14 Bank of Africa (K) Ltd</td>
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<td>18 Stanbic Bank (K) Ltd</td>
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<td>19 African Banking Corporation Ltd</td>
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<td>22 Ecobank Kenya Ltd</td>
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<td>26 Guaranty Trust Bank (Kenya) Ltd</td>
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<td>41 HFC Ltd</td>
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<td><strong>Total</strong></td>
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