IMPACT OF INTEREST RATE CAPPING ON LOAN GRANTING BY LISTED COMMERCIAL BANKS IN KENYA

BY

BEATRICE MUYA

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SPRING 2019
IMPACT OF INTEREST RATE CAPPING ON LOAN GRANTING BY LISTED COMMERCIAL BANKS IN KENYA

BY

BEATRICE MUYA

A Research Project Submitted to Chandaria School of Business in Partial Fulfilment of the Requirement for Master’s Degree in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SPRING 2019
STUDENT’S DECLARATION

I, the undersigned, pronounce this is my unique work and has not been submitted to some other institution or university other than to the United States International University-Africa (USIU-Africa) in Nairobi, Kenya for academic credit.

Signed: ___________________________  Date: ___________________________

Beatrice Muya (ID: 654053)

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

Signed: ___________________________  Date: ___________________________

Timothy Okech, PhD

Signed: ___________________________  Date: ___________________________

Dean, Chandaria School of Business
COPYRIGHT

This research project reserves the right of usage either in print form, or electronic without express written permission from the author. All rights reserved.

Copyright © Beatrice Muya (2019)
DEDICATION

I specially dedicate this research project to my family my dad Mr. Muya Karera, mom Mrs. Virginia Muya, siblings Loise, Miriam and Francis for their relentless support, encouragement and believe in my ability. To my friends who always cheered me on and inspired me to be better. May the almighty bless you.
ACKNOWLEDGMENT

I would like to acknowledge Prof. Timothy Okech for the tireless guidance in the development of this research project and most importantly his effective feedback. The respondents for taking time off their busy schedules to provide feedback which was vital to this research and its completion.
ABSTRACT

The purpose of this study was to determine the effects of interest rate capping on credit granting of commercial banks listed in Kenya. Three research questions guided the study namely i) what is the impact of interest rate capping on loan portfolio of commercial banks; ii) what is the impact of interest rate capping on deposits of commercial banks; iii) what is the impact of interest rate capping on profitability of commercial banks in Kenya.

The study adopted descriptive survey design, the study population constituted 52 credit and finance managers from the eleven commercial banks listed in NSE. Stratified sampling technique was used in selecting 52 credit and finance managers, a closed ended questionnaire was used for data collection and Statistical Package for Social Sciences software was used for data analysis. However, data was analysed and presented using tables and figures.

The first research question sought to establish the impact of interest rate capping on credit portfolio of commercial banks. The study aspects addressed in the questionnaire include: loan administration fee, non-performing loan, market forces, loan performance targets and reduction in loan granting to SMEs both contributed to a positive significant relationship between interest rate capping legislation and credit portfolio performance. Descriptive statistics established that interest rate legislation affects loan portfolio performance by 82%, while 96% of the respondents suggested that interest rates should be determined by the market forces as opposed by the government intervention. Interest rate capping has a significant positive association with loan portfolio (r = 0.903, p-value = 0.000). The positive correlation between interest rate capping and loan portfolio highlights that increase or decrease in these variables could be associated with a reduction or improvement in interest rate.

The second research question sought to determine the impact of interest rate capping on deposits of commercial banks. Majority of the respondents agreed that interest rate capping has an implication on bank deposits. The findings established that there exists a statistically significant relationship between interest rate capping and customer deposits. The relationship was contributed by various variables; rates payable on deposits, revenues on deposits, loan applications, customer savings, interests on deposits and amount of cash deposits in commercial banks. Descriptive statistics analyzed by the study indicated that 73% of the respondents agreed that interest rate capping legisaltion had increased the amount payable on deposits and
56% also agreed that the law had reduced the amount of deposits. Interest rate capping had a significant positive association with deposits \( (r = 0.881, \ p-value = 0.000) \).

The third research question sought to establish the impact of interest capping on profitability. Most of the respondents agreed that interest rate capping has an implication on profitability of commercial banks. The study variables administered in the questionnaire included: banks profitability, sales targets, return on assets, charges on deposits, credit risk and charges on bank transactions. The variables contributed to a statistically significant relationship between interest rate capping and profitability of commercial banks. Descriptive statistics indicated that 61% of the respondents agreed that the interest rate capping legislation affects profitability of commercial banks, 57% agreed that the law prevents them from meeting their sales targets and 55% agreed that the law poses high credit risk for commercial banks. Interest Rate Capping has a significant positive association with profitability \( (r = 0.920, \ p-value = 0.000) \).

The study concludes that interest rate caps cause banks to increase loan processing fees as a way of enhancing revenues lost from interest rate caps. Similarly, interest rate caps cause commercial banks to increase insurance fees on loan as a way of compensating for lost revenue on loans making it difficult for SMEs and customers seeking microfinance products to access these loan facilities and products. The study also concludes that increase in interest rates payable on deposits increases customers’ deposits with commercial banks. Similarly, increase in interest rates on deposits increases customers’ savings in commercial banks. Increase in interest rate on deposits has both positive and negative impact on banks liquidity. Furthermore, it was concluded that interest rate capping has a negative implication on profitability of commercial banks since it poses a credit risk on loans granted to customers.

It is recommended that management at commercial banks listed at NSE should balance fees chargeable on each loan product as processing fee to a percentage of the loan. This should be the same to insurance fees, and legal fees to avoid situations where microfinance and SME loan products become expensive for customers to afford. The study also recommends that high liquidity generated from customers’ deposits should be invested in other banking products instead of the funds in the banks’ accounts. Furthermore, commercial banks should develop a minimum optimum level for increasing loan processing fees and insurance fees that is mutually beneficial to the bank and customers. There is also need to enhance competitive loan products for different market segments, to ensure loan products are competitive on the financial market.
LIST OF TABLES

Table 4. 1: Response Rate...........................................................................................................27
Table 4. 2: Profit Margins from Loans ..........................................................................................32
Table 4. 3: Interest Capping and Bank’s Growth .........................................................................34
Table 4. 4: Interest Rate Capping and Market Forces .................................................................35
Table 4.5: Correlation between Interest Rate Caps and Loan Portfolio ....................................35
Table 4.6: Regression between Interest Rate Caps and Loan Portfolio ....................................36
Table 4.7: ANOVA between Interest Rate Caps and Loan Portfolio ..........................................36
Table 4.8: Coefficients of Interest Rate Caps and Loan Portfolio .............................................37
Table 4.9: Interest Rate Capping and Amount Payable on Deposits ..........................................37
Table 4. 10: High Interest Rates on Deposists and Short Term Assets .....................................40
Table 4.11: Customer Savings and Interest Rate Capping .........................................................41
Table 4.12: Loan Applications and Interest Rates Charged on Deposits ....................................41
Table 4.13: Interest Rates on Deposits and Market Forces .......................................................42
Table 4.14: Interest Rate Capping Legislation and Interest Rates on Deposits .......................42
Table 4.15: Correlation between Interest Rate Capping and Deposits ......................................43
Table 4.16: Model summary between Interest Rate Caps and Deposits ....................................43
Table 4.17: ANOVA between Interest Rate Caps and Deposits .............................................44
Table 4. 18: Coefficients between Interest Rate Caps and Deposits .........................................44
Table 4.19: Interest Rate and Profitability ...................................................................................45
Table 4.20: Interest Rate Capping and Banks Sales Targets .....................................................45
Table 4.21: Correlation between Interest Rate Cap and Profitability .......................................50
Table 4.22: Model Summary between Interest Rate Cap and Profitability ...............................50
Table 4.23: ANOVA between Interest Rate Cap and Profitability ...........................................51
Table 4.24: Coefficients between Interest Rate Cap and Profitability ......................................51
LIST OF FIGURES

Figure 4.1: Gender of the Respondents.............................................................................................................. 28
Figure 4.2: Age Bracket of the Respondents ........................................................................................................... 28
Figure 4.3: Level of Experience ............................................................................................................................... 29
Figure 4.4: Level of Management ........................................................................................................................... 30
Figure 4.5: Loan Portfolio Performance .................................................................................................................. 31
Figure 4.6: Loan Administration Fee ..................................................................................................................... 31
Figure 4.7: Non-Performing Loans .......................................................................................................................... 32
Figure 4.8: Loan Insurance Fee ............................................................................................................................... 33
Figure 4.9: SME Loan and Interest Rate Caps ........................................................................................................ 33
Figure 4.10: Interest Rate Capping and Loan Portfolio Targets ............................................................................. 34
Figure 4.11: Customer Deposits ............................................................................................................................. 38
Figure 4.12: Interest Rates on Deposits and Banks Revenues ............................................................................. 39
Figure 4.13: Profitability and Interest Rates on Customer Deposits ................................................................. 40
Figure 4.14: Interest Rate Capping and Return on Assets ..................................................................................... 46
Figure 4.15: Charges on Deposits and Profitability ............................................................................................ 46
Figure 4.16: Interest Rate Capping and Credit Risk ............................................................................................... 47
Figure 4.17: Interest Rate Capping and Non-Performing Loans ........................................................................ 47
Figure 4.18: Non-Performing Loans and Banks Revenues ..................................................................................... 48
Figure 4.19: Credit Risk and Loan Portfolio .......................................................................................................... 49
Figure 4.20: Interest Rate Capping and Bank Transaction Charges ........................................................................ 49
LIST OF ABBREVIATIONS AND ACRONYMS

NSE: Nairobi Securities Exchange

PLC: Public Limited Company

ANOVA: Analysis of Variance

SPSS: Statistical Package for Social Sciences
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Interest rate capping tends to affect the way commercial banks allocate credit in the market and this has a direct impact on profitability of banks since interest rate is their main source of income (Erickson, 2018). The proponents of interest rate capping on the other hand suggest that such initiatives make credit less expensive and in the long run will open up to the marginalized economy creating more financial inclusion as a result of increased access of credit facilities.

Worldwide, interest rate capping is viewed as a form of government control in the financial industries since it comes into practice through government intervention in most countries (Shastri, Exchange rate interest rate linkages in India: an empirical investigation, 2016). Capping of interest rate entails an interest rate which is allowed to fluctuate, but cannot surpass the stated interest cap by the regulators making it a provision in adjustable rate mortgages and limiting how much an interest rate can increase (Helliar, 2014). Interest rate capping is considered a government intervention through legislation when it is deemed that the interest rate in the market is too high resulting to failure in the market forces (Miller, 2013). He further indicates that the failure tends to result from the notion of market information asymmetries, the inability of the targeted firms to differentiate between the high and low-risk customers, and moral hazards.

The purpose of interest capping is to ensure that credit facilities are available even to the poor as an attempt of reducing cost of funds (Helliar, 2014). The reason behind this thinking is that interest rate capping legislation can be justified as a mechanism intended to protect consumers from exploitation through guaranteeing access to credit at reasonable rates that are regulated and to facilitate the prosecution of deceptive and exploitative lenders (Maimbo & Gallegoz, 2014). They also indicated that interest rate capping can help in protecting the interests of the public by ensuring that a reasonable and fair interest rate on loans exist. On this premise, interest rate capping may also be a good mechanism in limiting access to credit to impaired and low-income customers. Another rationale of interest rate capping is that since prices charged for credit can be arbitrary and anticompetitive and thus be higher than the true cost of granting credit, setting a lower cap interest rate would still allow lenders to operate (Ferrari & Masetti, 2018).
There has however, been an argument that financial institutions make abnormal profits by charging exploitative interest rates while the government has not been able to achieve the desired effects in its economy and this can be attributed to lack of interest rate capping (Kavwele, Ariemba, & Eusahaan, 2018). In view of the fact that capping has the tendency to distort the market via the creation of adverse biases, the financial firm opt to favour the lending of their product to low-risk customers which by the end of the day result to inefficiencies in the financial intermediation process (Al-Muharrami, 2015). As a result, this type of discrimination creates a forum that those clients who are in dire need of the financial assistance are finally locked out of the existing finance since the financial institution consider the high-risk ideology that they are associated with (Wong & Reddy, 2018).

In any economy where commercial banks go about as mediators through which people store their assets and acquire credit, business banks have cash from the effect between the rate at which they pay investors and the rate at which they charge borrowers. The rates are constantly controlled by the market powers that is request and supply yet a few different variables can likewise become possibly the most important factor (Cytonn, 2017). Putting a top on loan costs can have impact on the productivity of the business since it doesn't represent a few factors that may influence business banks choice to settle on specific spreads. In addition, pegging interest rate to the Central Bank Rate will highly depend on the transmission mechanisms of monetary policy decision into the economy and its effectiveness in the assessment regarding the state of the country’s economy (Erickson, 2018).

In Azerbaijan, the restrictions that are associated with interest rate capping have brought in the alternative lending mechanisms by the financial industries. For instance, the alternative financial lending system that has been implemented is the lending of the banks and microfinance institutions (Jamilov, 2015). They have also provided a more convenient method of deploying this concept since it offers the ideology of withdrawal from diverse locales such as rural. The state of affairs that is created in the above discussion in turn result for the low income, high-risk client tending to opt for the shylocks and other unlicensed money lender organizations which finally result to the outcome of the very high-risk costs (Martin, 2013). Evidently, interest rate capping on loaning activities tend to discourage microfinance and non-governmental organizations and other related financing organization due to the notion of converting the organizations to licensed financial firms (Pera, 2018).
In Japan, the government review of the 2006 Act on the interest rate capping ideology reduced the risk of the interest capping rate under the influence of the Capital Subscription Law from 28% to 18%, which enabled consumers to obtain credit facilities at affordable rates (Shimizu, 2017). Even though, the lenders started to protest due to the introduction and implementation of the restriction to reduce the interest rate to this level arguing that this restriction will make the institutions unprofitable and be driven out of the market, the final figure that was produced by the financial service agency in the early 2004 revealing that the financial institutions were borrowing the money from then banks at the rate of 2% and whilst selling their lending at the rate of 29% (Wong & Reddy, 2018).

In Africa, reports show that most of the African countries have established interest rate capping with the aim of protecting the customers from the high-interest rate that they encounter from the banking sector environment (Munguti, 2015). Ideally, the genesis and the crisis of these ceiling institutions is the government due to the pressures that they face from their esteemed citizens. The primary purpose of this capping is to create a business curve that will prevent the financial interest capping institutions to stop increasing their interest yields (Kavwele, Ariemba, & Evusa, 2018). The ideology particularly targets all markets with a combination of no transparency, limited disclosure requirements and low levels of financial literacy.

By the end of 2013, almost 19 countries in Sub Saharan Africa had introduced the notion of interest rate caps (Munguti, 2015). The West African Economic Department also played a significant role in the capping of the interest rate in West Africa which also included the Francophone countries. The department was developed in 1997. According to the Minister of the Department for economics, the interest rate of the financial institution is now 15% and 24% for the micro-financing. In addition, the Economic and Monetary Community of Central Africa introduced the interest rating capping in 2012. In Zambia, the central bank of Zambia also opted for the introduction of the interest rate capping on the annual interest on the loans that are charged by the non-bank financial firms in 2013 (Shawiza, 2018). The logic behind the reasoning of the Bank of Zambia is that most of the non-bank financial was charging extremely higher degree of interest rate charges. For that matter, most of the credit access was extremely locked and even done away with and so the government had to intervene. Further, the main reason why the government had to come in was to make loans more affordable and equitable for the borrowers (Okwany, 2017).
It was in 2000 that the ideology of the interest rate capping was first introduced in Kenya with the main objective being to regulate the rates charged on credit by commercial banks and did not get much support from the members of the parliament and the stakeholders which include the banks. The aim of the legislation was to regulate on the charges that were being charged by banks on the loaning financial institutions (NSE, 2016). The law requires commercial banks not to charge interest rates above 4.5% of what the Central Bank of Kenya charges meaning that commercial banks will charge 14.5% interest rates being the lowest rates since the Kenyan financial market was liberalized (Erickson, 2018).

Commercial banks in Kenya after the implementation of interest rate capping legislation have reduced their operations by closing branches, labour downsizing, and adopting technological innovations to cut down on their operational costs. Banks have been hit by the legislation and most of them have reported reduced profits (Kavwele, Ariemba, & Evusa, 2018). Most commercial banks are however, still in operation since there is no documented bank that exited the Kenyan market due to the impact that interest rate capping legislation has had on its operations. The introduction of interest rate capping has had a ripple effect on the banking sector that has witnessed several commercial banks opting to reduce operational costs that are aimed at improving efficiency and consolidating of operations such as closure of branches and merging bank branches just a year later after imposing the legislation (Maina & Okech, 2018). Other banks opted to lay off staff that resulted to loss of jobs with over two thousand employees reported to have been laid off by ten commercial banks a year later. In addition to that, some leading commercial banks have opted to use the regulation in forecasting of balance sheets and profit and loss accounts for their internal planning initiatives that are geared towards efficiency improvement and accelerating the overall generation of profits.

The interest rates have been so high in Kenya for decades, hence, calling upon the implementation of the new banking act law in 2016 to impose interest rate capping with the aim of making funds affordable to the citizens (Erickson, 2018). The move has received opposition from the Kenya Association of Bankers indicating that commercial banks should be left with the autonomy of determining the interest rate so that banks can lend out money to the institutions and individuals that have securities at hand. However, the exponents of this amendment agree with the bankers that interest rate capping could prevent ignorant and naïve borrowers from agreeing to the terms of credit which they will eventually default (Kimwomi & Muturi, 2018). Other industries in the countries with exception of the banks welcomed the
bill suggesting that it will be the starting point of the country’s towards the millennium goals of attaining an international economy (Wambua, 2018).

1.2 Statement of the Problem
Many stakeholders have been affected with new banking legislation on interest rate capping either adversely or positively. The existing shareholders of commercial banks are some of the stakeholders that are bound to have been affected by legislation on interest rate capping (Erickson, 2018). Commercial banks have been affected by the legislation that has forced several commercial banks to opt cutting down their operational costs by using necessary means such as layoffs and closure of branches aimed at improving efficiency (Maina & Okech, 2018).

Following the implementation of interest rate capping legislation, consumers highly anticipated that the new law would make access to credit facilities cheaper by paying less interest on their loans. This would contribute to the economic growth of the country (Erickson, 2018). This has not been the case because banks do not grant loans to risky clients that do not have collateral (Erickson, 2018). Locally, studies have been conducted in regards to interest rate capping, Meja (2017), carried out a study on the effect of interest rate capping on the levels of personal loans offered by commercial banks and the findings indicated that the law on interest rate capping increased the levels of personal loans granted by commercial banks. Ng’ang’a (2017), did a study on the impact of interest rate capping on financial performance of commercial banks in Kenya and he concluded that the interest rate spread had a negative impact on commercial banks in Kenya. Okwany (2017), in a study of the effect of interest rate capping on operational performance indicators of commercial banks in Kenya found out that interest rate capping reduced credit uptake, increased non-performing loans and decreased profitability.

The above studies have investigated interest rates on a broad perspective and they have not documented the issue of the new law of interest rate capping deeply in regards to the effect it has on credit portfolio, deposits therefore this study intended to fill the gap by investigating the impact of interest rate capping on credit granting of commercial banks listed in the Nairobi Securities Exchange.

1.3 Purpose of the Study
The purpose of this study was to determine the impact of interest rate capping on credit granting of commercial banks listed in Kenya.
1.4  **Research Questions**

The following research questions guided this study.

1.4.1 How does interest rate capping impact on credit portfolio of commercial banks listed in Kenya?

1.4.2 How does interest rate capping impact on deposits of commercial banks in Kenya?

1.4.3 How has interest capping affected the profitability of commercial banks in Kenya?

1.5  **Significance of the Study**

1.5.1 **Commercial Banks listed in NSE**

All the commercial banks listed in Nairobi Securities Exchange will benefit from the findings of the study since the study will establish the effects interest capping on credit granting. The study will enable the commercial banks to identify mitigation strategies of dealing with interest rate capping they face in the banking industry.

1.5.2 **Banking Customers**

All the banking customers will benefit from the findings of this study by gaining insights on how the interest rate capping is impacting credit granting in their banks, hence, make their investment decisions appropriately that are in line with their banks.

1.5.3 **Kenya Bankers Association**

This study is also significant to the banking industry as a whole since the players in the financial institutions will gain more knowledge on how the imposed legislation on the interest capping rates affects their projected profits as well their revenues streams and have appropriate strategy of dealing with such laws in order to remain competitive in the business environment.

1.5.4 **Researchers and Scholars**

Academicians will also benefit from the study by adding knowledge on the effects of interest rate capping on credit granting of commercial banks listed in Nairobi Securities Exchange. The findings can also be used for literature review by scholars and researchers.
1.6 Scope of the Study
This study focused on interest rate capping and credit granting of commercial banks listed in Kenya. The study determined the impact of interest caps on deposits, the impact of interest rate caps on performing loan portfolio and the mitigating strategies that can mitigate the impact of interest rate capping on credit granting. The study targeted the eleven (11) commercial banks listed in the Nairobi Securities Exchange, the banks include; Barclays Bank Ltd, Stanbic Holdings Plc, I & M Holdings Plc, Diamond Trust Bank of Kenya Ltd, Housing Finance Group Ltd, KCB Group Plc, National Bank of Kenya Ltd, NIC Group Plc, Standard Chartered Bank Ltd, Equity Group Holdings, and the Co-operative Bank of Kenya. The study will be limited to the eleven (11) commercial banks listed in the Nairobi Securities Exchange. The study will not be covering non-listed commercial banks. The study was conducted for a period of two months that is from January 2019 to February 2019.

1.7 Definition of Terms

1.7.1 Interest Rate
Interest rate is defined as the proportion of a loan given to a business or individual that is charged as the interest amount to the borrower and it typically expressed as an annual percentage of the outstanding loan (Jayashanka & Rath, 2017). In terms of borrowed cash, the interest rate is applied to the principal, being the amount of money lent. The interest rate then becomes the cost of debt for the borrower and the rate of return for the lender.

1.7.2 Interest Rate Cap
Interest rate cap refers to an interest rate which is allowed to fluctuate but at the same time it cannot surpass the stated interest cap by the authorities (Al-Muharrami, 2015). Interest rate capping is a type of the interest rate derivative whereby the buyer receives payment at the end of each period and the interest rate exceeds the agreed striking price.

1.7.4 Commercial Bank
A commercial bank refers to the financial institution that accepts deposits, provides checking and savings account services and making loans to the businesses and individuals (Martin, 2013). A commercial bank specifically deals with services relating to deposits and loans to large, and middle-sized businesses as opposed to the individual households of the public or small businesses.
1.7.5 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) refers to a leading financial market exchange based in Nairobi Kenya with a six-decade heritage in listing equity and debt securities (NSE, 2016).

1.7.6 Profitability

Profitability is the ability of an organization or a business to make use of its resources with the aim of generating revenues in the excess of its expenses that’s is the capability of a firm to generate profits from its operations (Ellison & Forster, 2006).

1.7.7 Credit Portfolio

Credit Portfolio refers to any collections of credit exposures which is formed as a section of financial intermediation activities such regular lending or as an investment (Jayashanka & Rath, 2017).

1.7.8 Deposits

Deposit is a transaction that involves a transfer of funds to another part for safekeeping or can be used as a collateral for the delivery of a good or service (Ahmed, 2011).

1.8 Chapter Summary

This chapter starts by introducing the background of the study on the effects of interest rate capping on credit granting of commercial banks, followed by the statement of the problem that the study is addressing followed by the purpose of the study. The chapter also presents the research questions that will guide the study, and highlights the significance of the study as well the scope that the study will focus on. Key terms used in the study have been defined. Chapter two provides literature review from various authors on what they have written on the research questions guiding the study. Chapter three highlights the research methodology that guided the study followed by chapter four to present results and findings obtained from the target respondents. Chapter five offers the discussion of the findings, conclusion and recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

The chapter presents the literature review on the effects of interest rate capping on profitability of commercial banks. The chapter begins with literature on the impact of interest rate caps on loan portfolio of commercial banks followed by the impact of interest rate capping on deposits of commercial banks and the last section present the literature review on the mitigating strategies that can be used to mitigate the impact of interest caps in commercial banks. The chapter ends with a chapter summary to highlight the major components covered in the literature review.

2.2 Impact of Interest Rate Caps Legislation on Loan Portfolio of Commercial Banks

The interest rate capping legislation is considered a phenomenon that puzzles most economists and the capitalists in the free market (Tahani & Li, 2011). The developed nations are discouraging the legislation of the interest caps. Countries like USA, Norway, Sweden, United Kingdom and Switzerland have not deployed the legislations of interest caps affecting the major financial institutions. For example, in 2013 United Kingdom introduced loans interest caps that aimed at limiting the small financial institutions and banks on their short-term daily loans which geared towards the direction of protecting customers from exploitation (Jamilov, 2015).

In developing nations on the flipside, they have encouraged the legislation on interest caps, a country like Nicaragua, introduced microfinance law capping the interest rate at 6% which led to a slowdown of the country’s credit growth, shaking the investor’s confidence level, causing capital flight in the country (Shastri & Shastri, Exchange rate interest rate linkages in India: an empirical investigation, 2016). Similarly, about 17 countries in Africa introduced interest capping legislation which witnessed the reduction of the financial institutions yield dropping from the initial 39% to 14%. Interest rate capping legislation was introduced in Zambia the year 2013 which capped the rate of microfinance institutions at 30 percent while that of the commercial banks was capped at 42 percent (Khandker, Samad, & Ali, 2013). The interest caps legislation had a negative impact on the commercial banks which forced the various banks to find legal means of getting away with the law making borrowing quite expensive to the consumers. Zambia scrapped the interest rate legislation in 2015 as it had a negative impact on
financial institutions in the country (Wambua, 2018). The West African Monetary Union nations also imposed legislation on interest caps on commercial banks and microfinance institutions capping the rate from 24 percent to 15 percent withdrawing financial institutions facilities to the poor and Small and Medium-Sized Enterprises.

Kenya on other hand introduced legislation on interest rate capping in July 2016 through the National Assembly of Kenya passed through the Banking Amendment Bill 2015 which required lending institutions to cap the interest rates at 4 percent above the Central Bank of Kenya from the initial 7 percent (Alushula & Guguyu, 2018). The law requires Kenyan commercial banks and other lending institutions to pay a minimum interest of 7 percent of the central bank rate on deposits. According to (Aglionby, 2016) the commercial banks in the country provided loan facilities to the borrowers at rate of 15.5 percent in the year 2015 while in the year 2016 commercial banks extended loan facilities at a rate of 18 percent. The legislation on interest capping translates to a negative impact on banks’ profitability since the law cuts into their profits.

2.2.1 Interest Rates increase

The interest rates tend to have a significant effect on loan performance offered by commercial banks. Jamilov (2015) conducted a study on the lending rates pass through and bank heterogeneity in Azerbaijan and found out that there was a positive relationship between high interest rates and the increase in non-performing loans for commercial banks. This indicates that the higher the lending rates put by the banks, the higher the risk of defaulting is likely to increase by borrowers. Martin (2013) in his study on assessing the model risk in respect to the interest rate term structure under solvency, he indicates that banks are able to run a certain risk of insolvency when increase in interest rates causes high non-performing loans that translate to the defaults by borrowers. Similarly, Helliar (2014) argues that high interest rates guarantees banks to experience high loan returns for commercial banks which is extremely desirable for stakeholders.

Studies have been conducted establishing that there is an existing relationship between the quality of assets and increase in interest rates in nations like Greece (Louzis, Vouldis, & Metaxas, 2012), Mexico, Spain and Italy (Bravy & Souto, 2009). Klein (2013) indicates that the bank specific factors on procedures of lending play a crucial role in portfolio loan performance and they should not be determined by the macroeconomic variables alone.
Commercial banks are faced with the dilemma of attempting to balance both the positive and negative effect of increased interest rates (Khandker, Samad, & Ali, 2013). As much as the interest rates increase can generate desirable returns in banks’ Return on Equity and Return on Assets, the high interest rates also lead to an increase in Non-performing loans which are not profitable for commercial banks (Maimbo, Alejandra, & Gallegos, 2014). When a commercial bank is faced by increased ratios on non-performing loans it may lead the bank to consolidate and improve the internal assets quality rather than offering credit facilities to the customers.

Allen, Kim and Zitzler (2012) argue that decreased return on equity and decrease in return on assets respectively can be detrimental to the growth of the bank’s market share, expansion and ultimately profitability of the commercial banks as opposed to its set targets. As much as the Gross Domestic Product of a nation has great power on non-performing loan ratio, the interest rate plays a significant role in enhancing this power (Beck, Jakubk, & Piloiu, 2013). In advancing this argument a study was conducted in the Gulf States which revealed that a combination of the low economic growth variables and high interest rates being charged on loans were the causes of an increase in non-performing loans which affects the performance of bank’s loan portfolio (Espinoza & Prasad, 2010).

According to Lu and Whidbee (2013) a poor loan portfolio performance tends to reduce the capital resources that are made available for lending by commercial banks. That is, it affects the performance of banks and their revenues. When a bank experiences failure of loans, non-performing loans negatively affects the capacity of banks providing loans to the borrowers. Consequentially, when the bank is faced with high levels of poor loan portfolio management, they are forced to concentrate on the internal consolidation and improve the quality of assest rather than seeking for new capital that will help them extend loan facilities to their customers (Espinoza & Prasad, 2010).

### 2.2.2 Interest Rates Decrease

A decrease of interest rates on lending has a negative implication on financial institutions specifically on the profitability margins per the loan facility extended by commercial banks to the borrowers (Al-Muharrami, 2015). This is the converse effects of increased interest rates on the lendable facilities by commercial banks to customers. As much as there are arguments that a decrease in loan funds should encourage lending to customers due to cheap accessible and easily available loans, commercial banks find other mechanisms of increasing profits through chargeable fees on loan procedures, insurance, legal fees that make loans still expensive for
borrowers (Bravy & Souto, 2009). Capped bank interest rates do have a negative relationship with financial performance (Kavwele, Ariemba, & Evusa, 2018). Therefore, commercial banks introduce mechanisms that compensate for loss of their revenues through interest rate capping. It is arguable that a decrease in interest rate increase performance of loans can be erroneous it proves to be necessary but not sufficient factor in determining loan portfolio performance (Aglionby, 2016).

According to Beatty and Liao (2011) a decrease in interest rates has a tendency of enhancing an increase in loans since banks scramble to offer more loans with an attempt of making up their losses due to the interest rate capping. The overdrive to enhance lending of credit facilities during the times of legislation on interest rate capping is detrimental to loan portfolio performance. In instances where, a bid of increasing loanable funds, commercial banks tend to channel most of the new credit into troubled sectors that exist by offering additional loans to the firms in order to service non-performing loans which at times can worsen the overall performance of the portfolio (Khandker, Samad, & Ali, 2013). To this regard, offering of good loans to the bad loans is not ideal for resolving as well as transformation of non performing loans into good performing loans by commercial banks (Kiganda, 2014).

Khandker, et al., (2013), they argue that giving loans to businesses that do not have the ability to repay or who are defaulting already tends to even increase during the decreased caps on interest rates by banks. Decreased interest rates has some sort of a blind impact for commercial banks since the decrease in interest rates capping puts pressure on commercial banks in selling more loan products. Attempt of selling more loans at times leads to cases where commercial banks offer unsecured loans to businesses that might not have the ability to repay the loans as agreed by the bank (Alushula & Guguyu, 2018). Rivalry among commercial banks forces them to adopt unsecured loan models by other lending institutions which have proved to be detrimental to loan portfolio performance. An increase in unsecured loans under the low interest rates starts from the desire for commercial banks to loop small firms and the low income earners into the banks loan portfolio. However, most of these loans lack sufficient security to cushion the commercial banks in case of defaulting, hence, exposes the loan portfolio performance at risk (Helliar, 2014).

The imposition of interest rate capping is not always an issue of dooming and glooming since the countries that adopted the legislation on interest rate capping did it for economic purpose, especially with an attempt of protecting the middle and low level class citizens from being
exploited by commercial banks and other financial institutions that are seeking to make abnormal profits (Trow, 2010). Having adequate levels that can regulate the interest rates help in cushioning consumers from high cost of credit accessibility, less taxes and less expenditure in servicing the credit facility obtained from commercial banks. Governments have the responsibility of ensuring that there are sufficient controls and regulations in the financial markets to correct the gaps and anomalies of high interest rates (Kleinow & Nell, 2015).

2.3 The Impact of Interest Rate Capping on Deposits of Commercial Banks

Commercial banks just like any other financial institutions rely on deposits to meet their objectives as well running the lending activities (Sama & Casselman, 2015). Commercial banks depend on the customers’ deposits and savings to extend credit facilities to the borrowers and provision of liquidity necessary in the financial markets. In both the developed and developing nations, deposits and savings are crucial for any bank’s sustainability, profitability and expansion strategies. Long-term financial savings made by households increase the amount of national resources that are essential for development and investments (Kleinow & Nell, 2015). Domestic savings and deposits of consumers are significant not only to commercial banks but also for the country’s prosperity. Commercial banks get exposed to the risks of losing or little profitability when the interest rates caps are imposed. Banks profits tend to shrink when they increase compensation to the depositors that they serve (Ahmed, 2011).

The loanable funds theory explains how interest rates are determined by the demand and supply of loanable funds. There exists an inverse relationship between loanable funds and interest rates (OFT, 2010). This means that when interest rate returns on savings are high, customers and households increase their savings, and by extension, increase loanable funds disposable to banks for loan products. The loanable funds theory was developed by Knut Wicksell (1851-1926). Knut developed the idea that interest rates are always in an inverse relationship with loanable funds. Increase in interest paid on deposits increases customers propensity to save. As such, if there is a change in demand and supply of loanable funds, the resultant change will depend the extent of the movement of the supply and demand for the loanable funds, which is influenced by how much customers feel they are encouraged to save. The loanable funds theory assumes that demand for loanable funds originates from local businesses, government and the consumers of loan products. Equally, the theory assumes that supply of loanable funds is generated by the domestic savings, dispersion and spread of money balances in the banking system in addition to foreign lending. This relationships determine long term interest rates for
banks, while the short term rates are determined by the monetary state of a given economy (Porteous, Daryl, & Abrams, 2010).

2.3.1 Deposits

Bank deposits refers to the liability that is owed by the bank to the depositor. The deposits are made to the banks through checking accounts, savings accounts and the money market accounts, giving the depositor the right to withdraw the deposited funds, as agreed in the terms and conditions that govern the account agreement (Mushtaq & Siddiqui, 2017). The banking industry is regarded as the backbone of any nation’s economy and the bank deposits are the major tools of success for the commercial banking sector since they are the major part and a determinant of a nation’s savings of the entire country as a whole (Ojeanga, 2012).

Loans are considered to be significant in enhancing the loan portfolio performance of commercial banks making the deposits from consumers important in meeting these intentions. Banks require to have the adequate balance in terms customer deposits to meet the regulatory reserve requirements that are usually set by the country’s central bank (Kiganda, 2014). Researcher such as Shastri (2016); Alper and Anbar (2011) and Gamborcorta (2014) have all demonstrated that the increase in interest rates on deposits leads to an increase of banks’ liquidity and performance. Deposit increase has a significant relationship with financial performance of commercial banks. Similarly, Lu and Whidbee (2013) argue that high interest rate capping on the bank deposits can hurt the performance of banks, profits and the capability to advance more credit facilities to the borrowers since the higher payments on the deposits eat away the profits of the banks that could have been used in enhancing loan products by the banks. A higher interest payable to the deposits can encourage consumers to deposit more money and therefore increasing the liquidity that is desirable for both loans and investments (Maigua & Mouni, 2016).

As much as the increase in deposits create an atmosphere that favours more deposits, it is not a sufficient condition for performance of loan portfolio by banks (Bravy & Souto, 2009). The portfolio loan performance of commercial banks is guided by internal policies that determine the administration and the management of loans, hence, the argument that they increase interest payable on deposits encourages loan performance can be seen as erroneous (Beaty & Liao, 2011).

According to Erickson (2018), different commercial banks deal differently with the high liquidity due to the increased deposits. Most likely channels are increasing in loan products,
insurance products and other investments done in commercial banks. To enhance other avenues in order to dispose the excess liquidity might a daunting task to commercial banks that have placed limits on loan lending (Corb, 2012). In short term, it can be of an advantage for commercial banks to have above threshold liquidity, but in the long run this could be problematic for the banks themselves since the excess liquidity that comes as a result of deposits mean that the management of the commercial bank are not using the funds in enhancing the desirable profitability that the banks seeks to make. The commercial banks are tasked with the responsibility of making profits on deposits and not enhancing the liquidity threshold through customers’ deposits (Anbar & Alper, 2011). To find an optimal level to balance the returns and deposits is crucial in determining the performance of commercial banks.

In Kenya, the government requires that commercial banks to pay 70 percent of their profits to the depositors meaning that the profitability of banks will have to shrink due to the imposition of legislation on interest rate capping (Cytonn, 2016). However, there exist little evidence to suggest the government requirement to be the case for commercial banks. The commercial banking industry in Kenya had a gross loans standing at KES. 2.4 trillion whereas the deposit base of the sector accounted for KES 2.6 trillion, this was attributed by the commercial bank deposit accounts which were 37,455,795 and the loan accounts were 7,163,560 accounts. The financial report of Equity Bank Limited on the other hand showed that despite the interest rate capping, the bank’s deposits grew by 11 percent from KES 303 billion to KES 337 billion (Maigua & Mouni, 2016). The increase in number of deposits and the depositors seem to concur with the argument of Corb (2012) that in times where there is an increased interest rates on deposits, banks pay more and need of registering more depositors with an attempt of recovering the loss in high rate on deposit payments. He further indicates that, one of the biggest challenges with an increase of interest rates on deposits is that less funds goes into the circulation as more bank depositors seek to save so that they can earn from it which in turn punishes the banks lending opportunities since few people seek for loans (Anbar & Alper, 2011).

The total volume of deposits within commercial banks is normally determined by the forces of the markets (Aglionby, 2016). But interest rate capping tend to interfere with the free market forces of demand and supply which induce undue burden on the commercial banks and depositors in shuffling for positions of making profits (Beck, Jakubk, & Piloiu, 2013). Researchers have argued that deposits and savings in commercial banks are not only affected
by the increase in gross domestic product of a nation and inflation that negatively impacts the rate of deposits (Maimbo, Alejandra, & Gallegos, 2014).

2.3.2 Savings

Savings refers to the part of the disposable income by households which is immediately consumed in goods and services in fulfilling the needs and wants of consumers but rather put in a commercial bank or any other financial institution by households to earn them interest for future use (Al-Muharrami, 2015). Savings are significantly important for commercial banks as well as to the nations for economic growth since savings are used by banks in lending to the government and the private sector when it comes to infrastructure development, and other sectorial building initiatives within the country (Mbengue, 2013). When a nation’s economy is expanding commercial banks tend to have increase in savings (Gambacorta & Mistruli, 2004). They further noted that high interest rates significantly influenced savings of customers based on cross-sectional factors that impact Italian banks. Savings of households in Sub-Saharan Africa has continued to remain low at 20 percent as compared to the developed nations, and some of the attributes of this can be traced back to high rates of unemployment, macroeconomic factors of sub-Saharan African nations such as inflation and high interest rates (Kiganda, 2014).

Folawewo and Tennant (2008) conducted a study on the determinants of interest spread in Sub-Saharan African countries which revealed that interest rate increase hurted commercial banks in Namibia and Malawi in mobilizing deposits for loans which is contrary to Mang’eli (2012) who argued that increase in interest rates in deposits tend to cause an increase of customers’ propensity to save or deposit their liquid resources. This argument does not always hold to be true when the nation’s economy is under performing, it can therefore be argued that regardless of the demand and supply forces that attributes the free market and the interest rates effect is limited to economic status of a nation (Corb, 2012).

A study conducted to investigate bank specific macroeconomic determinants of bank performance in Turkey between the year 2000 and 2010 by Alper and Anbar (2011) the study used return on assets and return on equity as the bank determinants of measuring the performance of banks in terms of profitability. Among the parameters measured during the study consisted establishing the relationship between the increase in interest on deposits and profits which means that commercial banks performed better as a result of increase in bank deposits. By using a panel data and the fixed effect model, the study revealed that the interest
rates had a positive impact on performance regardless the effect of other macroeconomic variables in play.

Another study carried out in Nigeria by Aburime (2008) with 154 banks in the year 2006 to investigate the impact of interest rates on performance. The study found out that there is a positive relationship between the interest rates and performance of commercial banks, however, the study neglected examining the effect of the same on bank deposits and savings to find out whether the deposits and savings had any impact on performance of commercial banks. Mang’eli (2012) on the other hand, justified that the effect of deposits is hard to be justified for increased performance or profitability since the study should explicitly examine the effect of deposits exclusively to find out its contribution to the performance of commercial banks.

2.4 Interest Rate Capping and Profitability of Commercial Banks

The main source of revenues for commercial banks is profits which are made through interest rate differences on deposits and lending. Therefore, interest rates affect the profits of commercial banks directly and should be looked cautiously as the commercial banks will have no option rather to deploy retrenchment strategy to reduce the number of employees if they do not generate enough revenues to cater for their operation costs (Alushula & Guguyu, 2018). Among various factors that can have a great impact on commercial banks’ returns and profits made, the rate of interest is the most significant. Income earned from the rate of interest becomes the great source of revenues for most financial institution (Kimwomi & Muturi, 2018). According to Anbar and Alper (2011) commercial banks are continuously exposed to the interest rate risk and therefore changes in the interest rate affects the profitability of commercial banks essentially through the increase in the cost of funding and by reduction in the returns on assets and lowering the value of bank’s equity.

According to Ahmed (2011), financial literacy is important in enhancing uptake of financial services from commercial banks and other financial institutions. Ultimately, the quest for every commercial bank in increase in profitability. This means that banks have to increase avenues for more revenue. Helliar (2014), argues that the impact of interest rate caps include diminishing returns from loan facilities due to capping of interest rates. One of the available avenues that can enhance revenue generation is increase in number of depositors. However, potential customers may be unaware of the benefits of increased rate of returns on deposits. It is therefore the responsibility of commercial banks to develop financial literacy programs targeting new customers, which informing current customers of new products (Maimbo,
A well-educated and informed customers on products and services available from commercial banks.

As indicated by Erickson (2018) loan fee topping is a type of government mediation (control) in the money related part and over the ongoing years, there has been a decay on the quantity of countries that utilization this type of government control, mainly in light of the fact that most countries are going for having liberal budgetary arrangements. Profitability and financial performance of a company is measured by the return on assets which indicates how the management puts into use the company’s assets with the intentions of generating revenues. Interest rates do affect profitability of commercial banks directly (Ellison & Forster, 2006). Obillo (2015) found out that interest rates affect profitability of commercial banks either directly or indirectly, when the interest rate are low more people are motivated to borrow and the banks benefit from the increased interest earnings, equally when the interest rates are high it discourages customers from borrowing which causes a reduced interest income generated and ultimately the reduction in profitability of commercial banks. The regulation of the interest rates require a thorough investigation of the consumer’s credit worthiness before offering them a loan (Al-Muharrami, 2015).

Ekka and Wenner (2012) conducted a study in the Latin America which showed that competition in the Latin countries effectively boosted in determining interest rates that are customers are charged on loans and deposits. They also revealed that nations like Colombia and Bolivia, Bolivia had a financial institution specializing in microfinance loans had entered into the market giving competition to established commercial banks which witnessed them lowering interest rates on loans being offered to clients. Equally in Colombia, the rivalry among microfinance institutions and commercial banks led to a decline in interest rates on loans offered by commercial banks in the country that is self-correction mechanisms do not require government intervention in form of the interest rate capping.

However, in many instances commercial banks do not deliberately submit to lowering interest rates at the expense of their revenues (Agarwal, 2015). Profits tend to encourage commercial banks in imposing interest rates on loans. He further indicates that the role of Microfinance institutions in the African economy content that the regulatory regimes should aim at enhancing fair competition rules which allows small players in the financial markets to find their space and influence interest rates both on loans and deposits by banks on loans.
In a study conducted by McClain and Meier (2013) to examine the costs and benefits of interest capping and trade, along with some investigation of the actual mechanisms by which the system is expected to function. Their study indicated that interest rate capping reduced profits of the financial institutions which had impact on the economy in terms of development. In addition interest rate capping legislation also hindered trade between America and other countries.

2.4.1 Non-Perfoming Loans

Non-perfoming loan can either be a default or close to being a default for the commercial banks and the financial institutions as a whole (Salike & Ao, 2018). A bank loan is consireder a non-perfoming or bad debt when the borrower takes more than 90 days without paying the agreed installments. When the loan becomes non-performing, the odds that it will be repaid in full is also consireded to be substantially lower which directly impacts the profits and revenues that the bank has targeted. According to Polucci and Menicucci (2016) one of the bank’s primary task is offering loans that enbales companies and individuals to invest and allowing individuals to make various purchases to cater for their needs and wants. The banks then expects to earn money from the interest it receives on these loans. Providing loans is not free from risk, however, the banks can never be assured that the company or the individuals will repay the amount within the agreed timespan. When the borrower defaults from paying the loan or the interest after certain period of time the bank claffies it as a bad debt or non-performing loan (Beaty & Liao, 2011).

The thinking behind interest rate capping legislation is to curtail the usury like the interest rate among financial institution with the purpose of alleviating the burdensome nature of high credit prices among the businesses and open up the credit facility to the poor in order to uplift their standards of living (Jamilov, 2015). However, research indicates that interest rate capping tend to hurt the poor more thn other groups since commercial banks stop lending to what they consider high risk individuals because the interest rate cannot cover the risk that is involved. According to McClain and Meier (2013) although the bigger commercial banks may remain profitable at a low interest rates, the smaller banks may fail to survive due to non-perfoming loans accumulating losses for the banks and hence driving them out of the market. The new entrants into the banking industry may not be attracted to the market that is associated with interest rate control which further creates space for illegal lenders.
2.4.2 Credit Risk

Credit risk is the potential that the bank borrower or counterpart will default or fail to meet its obligations in accordance with the agreed terms to secure credit being granted by the financial institution (Anbar & Alper, 2011). The role of credit risk management in banks is to maximize the bank’s risk-adjusted rate of return by maintaining credit risk exposure within the accepted parameters. Credit risk adversely affects profitability of commercial banks especially when the interest rates are capped. With interest rate capping legislation, commercial banks are unable to charge unsecured loans at a higher rate compared to secured loans. Securitization of loans being granted by commercial banks reduces banks insolvency, increases profitability, provide liquidity and leads to a great supply of credit among financial institutions (Knauer & Sommer, 2012). Commercial banks gather a lot of information from borrowers before issuing credit. The process of verification is done in order to reduce the risk of defaulting. Credit monitoring of businesses and entrepreneurs has grown rapidly over the past years and the lending relationship alone is not enough to reach the optimal financing terms set by the banks (Kavwele, Ariemba, & Evusa, 2018).

Poor flow of information can be associated with lack of transparency. When commercial banks lack information about the customer’s worth, they are then forced to raise interest rates on loans being granted to cover the risk (Ferrari & Masetti, 2018). In a regime with interest rate capping, banks are unable to raise interest rates above the capped rate and therefore unable to price loans in respect to variations in risk default from one customer to another (Erickson, 2018).

Interest rate capping legislation can also cause lack of transparency on loan terms. In South Africa, commercial banks and other financial institutions implemented extra fees and commissions on loans in order to respond to the interest rate capping legislation. Companies in South Africa that lacked transparency were attributed by a high degree of corruption and in turn suffered from heavy financial losses (Maigua & Mouni, 2016). Despite that transparency may not be achievable in all situations and especially in areas where a high degree of confidentiality is required. A study carried out in UK commercial banks established that lacking transparency facilitated banks in keeping information that could be important and vital for decisions made by the investors and the general public about the banks. Lacking transparency hinders shareholders of the firm from accessing the information that influences investment decisions (Menicucci & Paolucci, 2016).
According to Helliar (2014) the use of legal reforms with an aim of increasing transparency is good for commercial banks loan portfolio performance. He further noted that in Europe all the credit agreements with clients has to contain the total cost of the loan, while in countries like the United States, commercial banks are legally required to display the “schum er box” which is a column depicting the information on credit agreements, and in Panama commercial banks are legally required to provide their customers with the interest chargeable on their loans, nature of the rates and the duration of the loan and any other relevant information pertaining to the loans. As a result, commercial banks started to experience a decrease in non performing loans (Beck, Jakubk, & Piloiu, 2013).

Maimbo et al., (2014) carried out a study in 76 nations around the globe that were using some form of interest rate capping and revealed that 28 nations of these commercial banks were under interest rate capping legislation due to usury laws, 24 nations had their commercial banks under the interest caps while 9 countries heavily relied on other factor ceilings as the source of information as opposed to interest rate capping. The study having adopted descriptive survey design, sampled 15 commercial banks between the year 2002 and 2009, the findings indicated that performance of commercial banks was influenced by levels of interest rates. Their research concluded that banking specific factors influenced interest rates more than the macroeconomic variables, therefore, interest rates influenced performance of bank loan portfolio.

2.5 Chapter Summary

This chapter presented the literature review on the impact of interest rates on profitability of commercial banks. The first section reviewed the impact of interest rates on commercial banks loan portfolio performance, followed by the second section presenting the literature review on the impact of interest rate capping legislation on deposits and savings. Lastly, the impact of interest rate capping on profitability of commercial banks has been presented and these include, competition among commercial banks, withdrawing from loan facilities, bank charges and financial literacy to the customers. Chapter three of this study highlights the research methodology.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
The chapter presents the research methodology adopted by the study by highlighting the research design selected to guide the study, population and sampling design, data collection methods, research procedures explaining each step involved in conducting the study and data analysis indicating the tools that used in analysing the data obtained from the respondents.

3.2 Research Design
Research design is a blueprint used by the researcher as the most proficient method to incorporate various elements of the study in a way that is logical to guarantee that the research problem has been attended adequately (Cooper & Schindler, 2014). There various types of research designs including descriptive survey, experiments, grounded theory, action research, ethnography and archival research. This study selected descriptive survey research design. Descriptive survey design is a research method that is used in describing the attributes of the population or certain phenomenon that is under investigation while at the same time describing the conditions and relationships that exist based on the variables in a situation (Thornhill, Saunders, & Lewis, 2015). Descriptive survey design allowed the researcher to describe the phenomenon being researched on and why the researching is being conducted on that particular phenomenon and explaining how the research should be carried out.

3.3 Population and Sampling Design

3.3.1 Population
Population refers to the entire target respondents on which a sample to be investigated is drawn from (O’Beirne, 2011). In statistics a population may refer to the individuals, events, items or objects, and measurements. According to Jogulu and Pansiri (2013), population is defined as the aggregate observation that constitutes subjects that are grouped together based on similar attributes. The population of this study consisted of 52 credit managers from commercial banks listed in the Nairobi Securities Exchange as shown in Table 3.1 below.
Table 3.1: Population Distribution Table

<table>
<thead>
<tr>
<th>Commercial Bank</th>
<th>Target Population</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays Bank Ltd</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Stanbic Holdings Plc</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>I &amp; M Holdings Ltd</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Diamond Trust Bank Kenya Ltd</td>
<td>5</td>
<td>9%</td>
</tr>
<tr>
<td>HF Group Ltd</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>KCB Group Ltd</td>
<td>8</td>
<td>15%</td>
</tr>
<tr>
<td>NIC Group Plc</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>National Bank of Kenya Ltd</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Standard Chartered Bank Ltd</td>
<td>5</td>
<td>9%</td>
</tr>
<tr>
<td>Equity Group Holdings</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>Co-operative Bank of Kenya Ltd</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Human Resource Office of the Commercial Banks, 2019

3.3.2 Sampling Design

Sampling design is the framework which guides the researcher on how to determine and select a sample that fairly represents the entire population (Zhang, Wang, & Zhao, 2017). Sampling design is made up of the sampling frame, technique and sample size.

3.3.2.1 Sampling Frame

Sampling frame alludes to the gadget or a device to enable the researcher draw a sample of investigation from (Cooper & Schindler, 2014). For this study, sampling frame was obtained from the Human Resources Offices of the eleven commercial banks listed in the Nairobi Securities Exchange.

3.3.2.2 Sampling Technique

Sampling technique refers to the process through which the researcher selects units of individuals of the target population to participate in a study and that can be fairly generalized to the larger population (Garcia & Gluesing, 2013). There are various sampling techniques in research, among them being purposive sampling, stratified sampling, random sampling,
convenient sampling and many others. This study adopted a census since the entire population was studied. A census refers to a sampling technique which takes into consideration of every unit in a population (Cooper & Schindler, 2014).

3.3.2.3 Sample Size

A sample size refers to the subset of target population which is used in representing the entire population as a whole, which has similar attributes, behaviours and characteristics as the population on which inferences can be made (Boddy, 2016). A sample size of this study was drawn from eleven commercial banks listed in the Nairobi Securities Exchange where only credit managers and finance managers were targeted. For this study the sample size consisted of 52 credit managers. The sample size distribution is presented in Table 3.2.

Table 3.2: Sample Size Distribution

<table>
<thead>
<tr>
<th>Commercial Bank</th>
<th>Target Population</th>
<th>Sample Size</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays Bank Ltd</td>
<td>4</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Stanbic Holdings Plc</td>
<td>6</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>I &amp; M Holdings Ltd</td>
<td>3</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Diamond Trust Bank Kenya Ltd</td>
<td>5</td>
<td>5</td>
<td>9%</td>
</tr>
<tr>
<td>HF Group Ltd</td>
<td>4</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>KCB Group Ltd</td>
<td>8</td>
<td>8</td>
<td>15%</td>
</tr>
<tr>
<td>NIC Group Plc</td>
<td>2</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>National Bank of Kenya Ltd</td>
<td>4</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Standard Chartered Bank Ltd</td>
<td>5</td>
<td>5</td>
<td>9%</td>
</tr>
<tr>
<td>Equity Group Holdings</td>
<td>7</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>Co-operative Bank of Kenya Ltd</td>
<td>4</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Human Resource Office of the Commercial Banks, 2019
3.4 Data Collection Methods

Data collection is a systematic way through which the researcher gathers information that is significant in answering the research questions (Cooper & Schindler, 2014). This study used primary data which was obtained using a closed-ended questionnaire. The study used a closed-ended questionnaire to enable the respondents of the study to respond within a given spectrum which makes it easy for the researcher to carry out statistical analysis as opposed to the open-ended questionnaire. A Likert scale with five levels including strongly disagree, disagree, neutral, agree and strongly agree. The questionnaire used in data collection had four sections: the first section constituted demographic details, second section had questions for research question one, third section constituted questions for research question two and the last question had questions for research question three.

3.5 Research Procedures

Research procedures is a precise and a system depicting a well ordered methodology that the researcher utilizes in directing the study (Cooper & Schindler, 2014). The detailed approach enables the researcher to effectively integrate the research process in manner that is logic to accomplish the study objectives. Before the study began, the researcher sought approval from the supervisor. After the proposal had been approved, a letter was drafted to the Human Resources Managers of the eleven commercial banks listed in the Nairobi Securities Exchange. After the permission was granted, a pilot study was carried out using five respondents that did not participate in the study to determine the reliability and validity of the questionnaire. Pilot study helped the researcher to determine whether the questions had a true reflection of the conditions that exist on the ground. The feedback obtained from the pilot study was used in enhancing the questionnaire before being administered to the respondents. The next step was with the help of research assistants to physically visit the offices of the eleven commercial banks and administer the questionnaires to the target respondents. The research assistants gave a minimum of three days for the questionnaires to be answered. All the questionnaires were collected and handled to the researcher, the researcher went through all the questionnaires to counter check for errors as well as completeness of the data provided.

3.6 Data Analysis Methods

Data analysis is the process of converting raw data gathered from a survey into meaningful information that responds to the research questions (Cooper & Schindler, 2014). Data obtained from the respondents was analysed using Statistical Package Software for Social Sciences
(SPSS). Inferential statistics analysed correlation and regression analysis while descriptive statistics documented percentages and frequencies. Data was presented in tabular form using tables and figures.

### 3.7 Chapter Summary

Chapter three has highlighted the research methodology used in the study. It first presents the research design which descriptive survey followed by the study population which constitutes of 52 credit and finance managers from the elven commercial banks listed in NSE. The study made use of convenience sampling, questionnaire was the primary data collection method adapted, research procedures were presented in this chapter and data analysis methods.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
Chapter four offers results and findings based on the research question. The first section presents the response rate, followed by the demographic information of the respondents and the findings of the first research question that is on the impact of interest rate capping on credit portfolio of commercial banks. Findings on the impact of interest rate capping on deposits of commercial banks is also presented and finally findings on the impact of interest rate capping on profitability of commercial banks.

4.2 Response Rate and Background Information

4.2.1 Response Rate
The study established the response rate of 89% since 47 questionnaires out of 52 questionnaires were dully filled. A response rate of 89% is adequate because it is above 70%, therefore good for data analysis. Table 4.1 presents the response rate.

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Sample Size</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned Questionnaire</td>
<td>47</td>
<td>89</td>
</tr>
<tr>
<td>Un-returned questionnaire</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.2 Demographic Information
This section contains demographic information of the respondents that participated in this study.

4.3.1.1 Gender of the Respondents
The study investigated gender of the respondents. The findings are presented in Figure 4.1 which indicates that 54% of the respondents were male and 46% of the respondents were male. It is evident that there is adequate representation of both male and female ensuring gender balance as well as diversity.
The study sought to establish the age bracket of the respondents, the majority of the respondents 63% aged between 35-44 years, 10% aged between 26-34 years and 10% of the respondents were above 45 years as shown in Figure 4.2.

The respondents were asked to indicate their level of education, 4% had a doctorate degree, 56% had master’s degree, 0% had certificate degree and 40% had bachelor’s degree as shown in Figure 4.3.
Figure 4.3: Education Level of Respondents

4.3.2.4 Level of Experience

The respondents were asked to show the number from years worked in their organization. Most of the respondents at 38% revealed that they had worked at the association for between 6-10 years, 3% under 1 year, 30% between 1-5 years and 29% over 10 years as appeared in Figure 4.4. The results reveal that there exists adequate distribution across various level of experience.

Figure 4.3: Level of Experience

4.3.2.5 Level of Management

The study sought to determine the level of management of the respondents involved in the study. The majority at 51% represented lower level management, 18% top level management
and 31% middle level management as shown in Figure 4.5. It is evident that most of the respondents are low level managers.

**Figure 4. 4: Level of Management**

**4.3 Impact of Interest Rate Caps Legislation on Loan Portfolio of Commercial Banks**

The study sought to establish the impact of interest rate capping legislation on credit portfolio of commercial banks. The respondents were asked to indicate their degree of agreement on various sectors of interest rate capping in relation to loan portfolio based on a likert scale.

**4.3.1 Legislation on Interest Rate Capping and Loan Portfolio Performance**

The respondents were asked to indicate whether legislation on interest rate capping had decreased loan portfolio performance. The dominant part 47% concurred, 5% were impartial, 3% deviated, 43% emphatically concurred and 2% firmly differ as appeared in Figure 4.6. The implication of these findings is that interest rate capping legislation has reduced loan portfolio performance.
Figure 4.5: Loan Portfolio Performance

4.3.2 Interest Rate Capping Legislation and Loan Administration Fee

The respondents were asked to indicate if the law on interest rate capping influenced the increase on loan administration fee. 38% agreed, 56% strongly agreed, 2% strongly disagreed, 4% disagreed and 38% disagreed. The findings are highlighted in Figure 4.7. The implication is that interest rate capping legislation has caused increase of loan administration fee by commercial banks.

Figure 4.6: Loan Administration Fee
4.3.3 Profit Margins from Loans

The respondents were asked whether interest capping legislation reduced their profit margins coming from loans. Table 4.2 presents the findings with a representation of 2% disagreed, 0% strongly disagreed, 2% neutral, 69% agreed, and 27% strongly agreed. It implies that commercial banks' profit margins from loans reduced.

Table 4.2: Profit Margins from Loans

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Agree</td>
<td>33</td>
<td>69</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>12</td>
<td>27</td>
</tr>
</tbody>
</table>

4.3.4 Non-Performing Loans

The respondents were asked to indicate whether interest rate capping legislation had increased non-performing loans. The majority 63% agreed, 37% agreed while 0% disagreed, neutral and strongly disagreed as shown Figure 4.8 below. It implies that interest rate capping legislation had increased non-performing loans.

Figure 4.7: Non-Performing Loans
4.3.5 Loan Insurance Fee

The respondents were asked to indicate whether interest rate capping legislation had influenced the increase of loan insurance fee. Figure 4.9 presents the findings with a representation of 2% disagreed, 2% strongly disagreed, 4% neutral, 37% agreed and the majority 55% strongly agreed. The implication is that the interest rate capping has caused loan insurance fee to increase.

![Figure 4.8: Loan Insurance Fee](image)

4.3.6 Reduction of Loans to SMEs

The respondents were asked whether interest rate caps had caused a reduction in SME loan requests, 47% agreed, 2% disagreed, 51% strongly agreed, 0% neither were neutral nor strongly disagreed as shown in Figure 4.10. It implies that interest rate caps has caused a reduction in SME loan requests.

![Figure 4.9: SME Loan and Interest Rate Caps](image)
4.3.7 Interest Capping and Bank’s Growth

The respondents of the study were asked to indicate whether interest rate caps had negatively affected the overall growth of the bank. The findings show that 50% believed this to be the case and 46% equally agreed while 4% disagreed. 0% neither were neutral nor strongly disagreed as shown in Table 4.3 below. This interpretation could mean that interest rate capping are bad for bank’s growth.

Table 4.3: Interest Capping and Bank’s Growth

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>21</td>
<td>46</td>
</tr>
</tbody>
</table>

4.3.8 Interest Rate Capping and Loan Portfolio Targets

The respondents were asked to indicate whether interest rate capping hinders loan portfolio targets. The majority at 53% strongly agreed this to be the case and 45% equally agreed while 2% strongly disagreed. None of the respondents at 0% neither disagreed nor neutral as shown in Figure 4.11. It implies that interest rate capping hinders loan portfolio targets.

Figure 4.10: Interest Rate Capping and Loan Portfolio Targets
4.3.9 Interest Rate Capping and Market Forces

When the respondents were asked whether interest rates on loans should be determined by the marketing forces rather than the government, the majority at 61% strongly agreed, 35% agreed and 4% disagreed. 0% neither strongly disagreed nor neutral as indicated in Table 4.4. This means that 96% of the respondents were of the view that market forces are better regulators of the interest rates as opposed to the government intervention.

Table 4.4: Interest Rate Capping and Market Forces

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>35</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>28</td>
<td>61</td>
</tr>
</tbody>
</table>

4.3.10 Correlational Analysis between Interest Rate Caps and Loan Portfolio

The researcher used two statistical analysis tools that is correlation and linear regression to determine the relationship between the variables. Correlation analysis is a method of statistical evaluation used to study the strength of a relationship between independent and dependent variables. The correlation statistics in Table showed Interest rate capping has a significant positive association with loan portfolio ($r = 0.903$, p-value = 0.000). The positive correlation between interest rate capping and loan portfolio highlights that increase or decrease in these variables could be associated with a reduction or improvement in interest rate.

Table 4.5: Correlation between Interest Rate Caps and Loan Portfolio

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Interest Rate Caps</th>
<th>Loan Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate Caps</td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.903**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>47</td>
</tr>
<tr>
<td>Loan Portfolio</td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.903**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>47</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
4.3.11 Regression Analysis between Interest Rate Caps and Loan Portfolio

The regression model is a statistical procedure that allows a researcher to estimate the linear, or straight line, relationship that relates two or more variables. The results in table presented the fitness of model of regression model used in explaining the study variables. R squared is coefficient of determination which explained the varying in the dependent variable cause to changing in the in dependent indicator, from the results the value of Adjusted R-squared is 0.811 an indication that there is a varying of 81.1% on interest rate capping due to variations in loan portfolio. This shows that 81.1% changes in interest rates in the bank could be as a result of changes in loan portfolio while other factors not considered in this study account for only 18.9% of the changes in interest rate in the bank.

Table 4.6: Regression between Interest Rate Caps and Loan Portfolio

<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>.903a</td>
<td>.815</td>
<td>.811</td>
<td>2.12513</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Loan Portfolio

4.3.12 ANOVA between Interest Rate Caps and Loan Portfolio

To determine the goodness of the study model, ANOVA analysis was done. Table 4.7 shows the results after the test. The results of ANOVA analysis was significant as the P-value was less than 0.05 (sig=0.000) this indicates the goodness of fit in the study model. The regression model used was significant with the F-statistic of 198.013 was significant at P-value= 0.000 as shown in the table which falls within the satisfactory significance level of 0.05. This means that the independent variables have a positive influence on interest rate cap and their influence is significant.

Table 4.7: ANOVA between Interest Rate Caps and Loan Portfolio

<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>894.261</td>
<td>1</td>
<td>894.261</td>
<td>198.013</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>203.228</td>
<td>45</td>
<td>4.516</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1097.489</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate Caps
b. Predictors: (Constant), Loan Portfolio
4.4.13 Coefficients of Interest Rate Caps and Loan Portfolio

From the below regression equation, it was noted that holding loan portfolio to a constant zero, interest rate cap would be at 3.501. A unit increase in loan portfolio would lead to increase in interest rate cap by a factor of 0.903 (B= 0.783, P<0.05). Therefore, there is a significant relationship between the independent and dependent variable since the P value is less than 0.05. Therefore, the indicated model was adopted as follows; Y = 3.501 + 0.783Loan Portfolio.

Table 4.8: Coefficients of Interest Rate Caps and Loan Portfolio

<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>(Constant)</td>
<td>3.501</td>
<td>3.077</td>
</tr>
<tr>
<td>Loan Portfolio</td>
<td>0.783</td>
<td>0.086</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate Cap

4.4 The Impact of Interest Rate Capping on Deposits of Commercial Banks

The study sought to determine the impact of interest rate capping on deposits of commercial banks. The findings are presented as follows:

4.4.1 Interest Rate Capping and Amount Payable on Deposits

Respondents were asked to indicate whether interest rate capping had increased amount payable on deposits. The findings show that 48% agreed this to be the case, 43% strongly agreed, 3% were neutral and 2% disagreed while another 2% strongly disagreed as shown in Table 4.9. This means that interest rate capping has caused amount payable on deposits to increase.

Table 4.9: Interest Rate Capping and Amount Payable on Deposits

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>48</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>19</td>
<td>43</td>
</tr>
</tbody>
</table>
4.4.2 Increase in Customer Deposits

When the respondents were asked to indicate whether there has been an increase due to interest rate capping legislation. The findings show that 53% agreed and 47% equally agreed this to be the case while 0% neither disagreed nor strongly disagreed. 0% of the respondents were neutral as presented in Figure 4.12.

![Pie chart showing responses to increase in customer deposits](chart.png)

**Figure 4.11: Customer Deposits**

4.4.3 Interest Rate Capping and Bank’s Liquidity

When asked to indicate whether increase in bank’s deposits increased liquidity in the bank, 51% of the respondents agreed this to be the case, 45% strongly agreed, 4% were neutral, 0% neither disagreed nor strongly disagreed as presented in Figure 4.13.
The respondents were asked to indicate whether there has been reduction on banks revenues due to the interest rates charged on deposits. Figure 4.14 indicates that 56% strongly agreed indicating this to be the case, 42% strongly agreed, 2% disagreed while 0% neither strongly disagreed nor were neutral.
4.4.5 Profitability and Interest Rates on Customer Deposits

On the question whether interest rate capping had affected banks profitability due to interest rates on deposits, 62% strongly agreed this to be the case, 38% equally agreed while 0% of the respondents were neutral, disagreed and strongly disagreed as shown in Figure 4.15.

![Figure 4.13: Profitability and Interest Rates on Customer Deposits](image)

4.4.6 High Interest Rates on Deposists and Short Term Assets

The respondents were asked to indicate whether high interest rates on deposits had caused a reduction on short-term assets, 49% agreed this to be the case, 47% strongly agreed, 2% strongly disagreed, 2% disagreed and 0% were neutral as indicated in Table 4.10. It implies that high interest rates on deposits have caused a reduction in short-term assets.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>49</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>22</td>
<td>47</td>
</tr>
</tbody>
</table>

Table 4. 10: High Interest Rates on Deposists and Short Term Assets
4.4.7 Customer Savings and Interest Rate Capping

When the respondents were asked to indicate whether they believed that high interest rates on deposits caused an increase in customer savings, 52% agreed, 46% strongly agreed, 2% disagreed, 0% were neutral and strongly disagreed as indicated in Table 4.11.

Table 4.11: Customer Savings and Interest Rate Capping

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>52</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>21</td>
<td>46</td>
</tr>
</tbody>
</table>

4.4.8 Loan Applications and Interest Rates Charged on Deposits

On the question whether high interest rates on deposits had caused a reduction in loan application customers, 2% were neutral, 44% agreed, 54% strongly agreed, 0% disagreed and 0% strongly disagreed as shown in Table 4.12 below. This means that under high interest rates on deposits there are few customers seeking loans.

Table 4.12: Loan Applications and Interest Rates Charged on Deposits

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Agree</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>25</td>
<td>54</td>
</tr>
</tbody>
</table>

4.4.9 Interest Rates on Deposits and Market Forces

The respondents were asked to indicate whether interests rates on deposits should be deterimed by the market forces, 2% strongly disagreed, 2% disagreed, 49% agreed, 47% strongly agreed and 0% neutral as shown in Table 4.13 below. It implies that interest rates on deposits should be determined by the market forces.
Table 4.13: Interest Rates on Deposits and Market Forces

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>49</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>22</td>
<td>47</td>
</tr>
</tbody>
</table>

4.4.10 Interest Rate Capping Legislation and Interest Rates on Deposits

The respondents were asked to indicate whether legislation on interest rates should be abolished to enhance friendly rates on deposits, 59% agreed, 37% strongly agreed, 2% disagreed, 2% were neutral and 0% strongly disagreed as indicated in Figure 4.16. It indicates that interest rate capping legislation should be abolished to enhance friendly interest rates on deposits.

4.4.11 Correlational Analysis between Interest Rate Capping and Deposits

The correlation statistics in Table 4.15 show the relationship between the two variables. Interest Rate Capping has a significant positive association with deposits ($r = 0.881$, $p$-value = 0.000). The positive correlation between interest rate capping and deposits highlights that increase or decrease in deposits could be associated with a reduction or improvement in interest rate cap.
Table 4.15: Correlation between Interest Rate Capping and Deposits

<table>
<thead>
<tr>
<th></th>
<th>Interest Rate Caps</th>
<th>Deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate Caps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.881**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.881**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

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

4.5.12 Regression Analysis between Interest Rate Caps and Deposits

The regression model indicates the R-squared is coefficient of determination which explained the varying in the dependent variable cause to changing in the independent indicator, from the results the value of R-squared is 0.771 an indication that there is a varying of 77.1% on interest rate cap due to variations in deposits. This shows that 77.1% changes in interest rate in the bank could be as a result of changes in deposits while other factors not considered in this study account for only 22.9% of the changes in interest rate cap within the banking industry.

Table 4.16: Model summary between Interest Rate Caps and Deposits

<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>.881a</td>
<td>.776</td>
<td>.771</td>
<td>2.33502</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Deposits

4.5.13 ANOVA between Interest Rate Caps and Deposits

The result of ANOVA analysis was significant as the P-value was less than 0.05 (sig=0.000) this indicates the goodness of fit in the study model between interest rate caps and deposits. The regression model used was significant with the F-statistic of 156.288 was significant at P-value= 0.000 as shown in the table which falls within the satisfactory significance level of 0.05. This means that the deposit has a positive influence on interest rate cap and their influence is significant.
Table 4.17: ANOVA between Interest Rate Caps and Deposits

<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>852.135</td>
<td>1</td>
<td>852.135</td>
<td>156.288</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>245.355</td>
<td>45</td>
<td>5.452</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1097.489</td>
<td>46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

4.5.14 Coefficients between Interest Rate Caps and Deposits

From the regression equation, it was noted that holding deposits to a constant zero, interest rate caps would be at 10.480. A unit increase in deposits would lead to increase in interest rate cap by a factor of 0.881 (B= 0.822, P<0.05). Therefore, there is a significant relationship between the deposits and interest rate caps variable since the P value is less than 0.05. Therefore, the below indicated model was adopted as follows; Y = 10.480 + 0.881Deposits.

Table 4. 18: Coefficients between Interest Rate Caps and Deposits

<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>10.480</td>
</tr>
<tr>
<td></td>
<td>Deposits</td>
<td>0.822</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Deposits

4.5 Interest Rate Capping and Profitability of Commercial

The study sought to determine the impact of interest rate capping on profitability. The findings are presented as follows:

4.6.1 Interest Rate and Profitability

The respondents were asked to indicate whether interest rate capping affects profitability of their bank, the majority at 61% strongly agreed, 35% agreed, 2% strongly disagreed, 2% disagreed and 0% were neutral as presented in Table 4.19 below. This means that interest rate capping affects profitability of commercial banks.
<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>29</td>
<td>61</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>16</td>
<td>35</td>
</tr>
</tbody>
</table>

**4.6.2 Interest Rate Capping and Banks Sales Targets**

On the question whether interest rate capping has negatively affected the sales targets of the commercial bank, 2% strongly disagreed, 2% disagreed, 39% agreed, 57% strongly agreed and 0% were neutral as shown in Table 4.20. This implies that interest rate capping has a negative implication on sales targets of commercial banks.

**Table 4.20: Interest Rate Capping and Banks Sales Targets**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>27</td>
<td>57</td>
</tr>
</tbody>
</table>

**4.6.3 Interest Rate Capping and Return on Assets**

The respondents were asked whether interest rate capping had reduced the bank’s return on assets, 3% of the respondents were neutral, 2% strongly disagreed, 2% disagreed, 41% agreed and 52% strongly agreed as shown in Figure 4.17. This means that interest rate capping has a negative implication on banks return on assets.
4.6.4 Charges on Deposits and Profitability

When the respondents were asked whether charges were increased on deposits to enhance profitability, 53% agreed, 42% strongly agreed, 0% were neutral, 3% disagreed and 2% strongly disagreed as shown in Figure 4.18. This means that banks have increased charges on deposits to enhance profitability.
4.6.5 Interest Rate Capping and Credit Risk

When the respondents were asked to indicate whether interest rate capping legislation had posed a credit risk to the bank loans, 55% strongly agree, 39% agree, 4% disagreed, 2% strongly disagree and 0% were neutral as indicated in Figure 4.16. It implies that legislation on interest rate capping has posed a credit risk to bank loans offered by commercial banks.

Figure 4.16: Interest Rate Capping and Credit Risk

4.6.6 Interest Rate Capping and Non-Performing Loans

The respondents were asked whether interest rate capping had increased the amount of non-performing loans to some extent, 42% strongly agreed, 53% agreed, 0% were neutral, 3% disagreed and 2% strongly disagreed. The results are presented in Figure 4.17. It implies that interest rate capping has increased the amount of non-performing loans to some extent.

Figure 4.17: Interest Rate Capping and Non-Performing Loans
4.6.7 Non-Performing Loans and Banks Revenues

When the respondents were asked to indicate whether non-performing loans had decreased the bank revenue, 63% agreed, 32% strongly agreed, 5% disagreed while 0% neither strongly agreed nor neutral as shown in Figure 4.18. It implies that non-performing loans decrease bank revenues.

![Figure 4.18: Non-Performing Loans and Banks Revenues](image)

4.6.8 Credit Risk and Loan Portfolio

The respondents were asked to indicate whether credit risk had a negative implication on their loan portfolio, 41% agreed, 54% strongly agreed, 3% neutral, 2% disagreed and 0% strongly disagreed as shown in Figure 4.19. It implies that credit risk posed by interest rate capping legislation has a negative implication on banks loan portfolio.
The respondents were asked to indicate whether interest rate capping legislation had forced them to increase bank transaction charges to sustain their profits, 58% strongly agreed, 35% agreed, 5% disagreed, 2% strongly disagreed and 0% neutral as shown in Figure 4.20. It implies that legislation on interest rate capping has forced banks to increase banking charges to enhance their profits.

The correlation statistics in Table 4.21 show the relationship between the two variables. Interest Rate Capping has a significant positive association with profitability ($r = 0.920$, p-value =
The positive correlation between interest rate capping and profitability highlights that increase or decrease in profitability could be associated with a reduction or improvement in interest rates.

**Table 4.21: Correlation between Interest Rate Cap and Profitability**

<table>
<thead>
<tr>
<th></th>
<th>Interest Rate Caps</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate Cap</td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.920**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>47</td>
</tr>
<tr>
<td>Profitability</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>.920**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>47</td>
</tr>
</tbody>
</table>

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

**4.6.11 Regression between Interest Rate Cap and Profitability**

The Model summary indicates the R-squared is coefficient of determination which explained the varying in the dependent variable cause to changing in the independent indicator, from the results the value of R-squared is 0.844 an indication that there is a varying of 84.4% on interest rate cap due to variations in profitability. This shows that 84.4% changes in interest rate in the bank could be as a result of changes in profitability while other factors not considered in this study account for only 15.6% of the changes in interest rate in the bank.

**Table 4.22: Model Summary between Interest Rate Cap and Profitability**

<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>.920(^a)</td>
<td>.847</td>
<td>.844</td>
<td>1.93171</td>
</tr>
</tbody>
</table>

\(a.\) Predictors: (Constant), Profitability

**4.6.12 ANOVA between Interest Rate Cap and Profitability**

The result of ANOVA analysis was significant as the P-value was less than 0.05 (sig=0.000) this indicates the goodness of fit in the study model between interest rate capping and profitability. The regression model used was significant with the F-statistic of 249.115 was significant at P-value= 0.000 as shown in the table which falls within the satisfactory
significance level of 0.05. This means that the profitability of the bank has a positive influence on interest rate cap and influence is significant.

**Table 4.23: ANOVA between Interest Rate Cap and Profitability**

<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>Regression</td>
<td>929.572</td>
<td>1</td>
<td>929.572</td>
<td>249.115</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>167.917</td>
<td>45</td>
<td>3.731</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1097.489</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**4.6.13 Coefficients between Interest Rate Cap and Profitability**

From the Table 4.24 regression equation, it was noted that holding deposits to a constant zero, interest rate cap would be at 9.685. A unit increase in profitability would lead to increase in interest rate by a factor of 0.920 (B= 0.754, P<0.05). Therefore, there is a significant relationship between the profitability and interest rate cap variable since the P-value is less than 0.05. Therefore, the below indicated model was adopted as follows; Y = 9.685 + 0.920Profitability.

**Table 4.24: Coefficients between Interest Rate Cap and Profitability**

<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>9.685</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>.754</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Interest Rate Caps

**4.7 Chapter Summary**

The chapter has offered the results and findings in line with the research questions. The major findings show that there is a statistically significant relationship between interest rate capping and credit portfolio, there is also a statistically significant relationship between interest rate capping and bank deposits. Finally, a significant relationship between interest rate
capping and profitability. Chapter five highlights the discussion, conclusion and recommendations.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

The chapter presents the discussion of the study, conclusion and recommendation. The chapter presents a summary of the study followed by the discussion on the findings in comparison to the literature review. Finally, conclusions are drawn and as well as the recommendations for improvement and future studies.

5.2 Summary

The purpose of this study was to determine the impact of interest rate capping on credit granting of commercial banks listed in Kenya. This purpose was to be attained under three research questions: How does interest rate capping impact on credit portfolio of commercial banks listed in Kenya? How does interest rate capping impact on deposits of commercial banks in Kenya? How has interest capping affected the profitability of commercial banks in Kenya?

The study adopted descriptive survey design and data collection was done using a structured questionnaire to obtain relevant information from the target respondents. A sample size of 52 respondents was selected from commercial banks listed in NSE. Data obtained from the respondents was entered into SPSS for data analysis which enabled the researcher to give both descriptive and inferential statistics. Data analysis was performed and results summarized, descriptive statistics used to analyse percentages and frequencies while inferential statistics used correlation and regression analysis and presented using tables and figures.

First the study sought to establish the impact of interest rate capping on credit portfolio of commercial banks. The study aspects addressed in the questionnaire include: loan administration fee, non-performing loan, market forces, loan performance targets and reduction in loan granting to SMEs both contributed to a positive significant relationship between interest rate capping legislation and credit portfolio performance. Descriptive statistics established that interest rate legislation affects loan portfolio performance by 82%, while 96% of the respondents suggest that interest rates should be determined by the market forces as opposed by the government intervention. Interest rate capping has a significant positive association with loan portfolio (r = 0.903, p-value = 0.000). The positive correlation between interest rate capping and loan portfolio highlights that increase or decrease in these variables could be associated with a reduction or improvement in interest rate.
The second research question sought to determine the impact of interest rate capping on deposits of commercial banks. Majority of the respondents agreed that interest rate capping has an implication on bank deposits. The findings established that there exists a statistically significant relationship between interest rate capping and customer deposits. The relationship was contributed by various variables; rates payable on deposits, revenues on deposits, loan applications, customer savings, interests on deposits and amount of cash deposits in commercial banks. Descriptive statistics analyzed by the study indicated that 73% of the respondents agreed that interest rate capping legislation had increased the amount payable on deposits and 56% also agreed that the law had reduced the amount of deposits. Interest Rate Capping has a significant positive association with deposits \((r = 0.881, p\text{-value} = 0.000)\). The positive correlation between interest rate capping and deposits highlights that increase or decrease in deposits could be associated with a reduction or improvement in interest rate cap.

The study also sought to establish the impact of interest capping on profitability. Most of the respondents agreed that interest rate capping has an implication on profitability of commercial banks. The study variables administered in the questionnaire include: banks profitability, sales targets, return on assets, charges on deposits, credit risk and charges on bank transactions. The variables contributed to a statistically significant relationship between interest rate capping and profitability of commercial banks. Descriptive statistics indicate that 61% of the respondents agreed that the interest rate capping legislation affects profitability of commercial banks, 57% agreed that the law prevents them from meeting their sales targets and 55% agreed that the law poses high credit risk for commercial banks. Interest Rate Capping has a significant positive association with profitability \((r = 0.920, p\text{-value} = 0.000)\). The positive correlation between interest rate capping and profitability highlights that increase or decrease in profitability could be associated with a reduction or improvement in interest rates.

5.3 Discussion

5.3.1 Interest Rate Caps Legislation on Loan Portfolio of Commercial Banks

The findings of this study has established that there exists a statistically significant relationship between interest rate caps and portfolio loan performance, \(r (0.903); p < 0.01\). This findings is in line with findings by Maimbo et al., (2014) who conducted a study in Nicaragua and found the existence of a positive relationship between interest rate caps and portfolio loan performance. Similarly, a study by Khandker et al., (2013) in Zambia established the existence of a positive relationship between interest rate caps and portfolio loan performance.
This study found that interest rate caps slow loan performance. This is because banks are not willing to charge lower interest rates for lower profit margins. As such, this leads to a situation where banks reduce the number of loan products that are available to customers, and thus significant reduce the revenue accrued from interest payable on loans. Most commercial banks face the dilemma of balancing both the positive and negative impact of interest rate caps. Leon and Tracey (2011) argued that increasing interest rates for most commercial banks is a profitable venture, however, when legislations or regulations require banks to hold a particular interest rate, banks profitability suffer. This is more so for banks that rely loans as conduits through which banks revenue will be established or enhanced. Espinoza and Prasad (2010) study in the Gulf States revealed that a combination of low economic growth indexes and high interest rates chargeable on loans were responsible for increase in NPLs, which affected performance of loan portfolio. Thus, the argument that interest rates caps impact negatively on banks loan performance has merit. However, the findings of this study revealed the interest rate caps decreased interest payable by borrowers to banks contrary to by Espinoza and Prasad (2010) who argued for increase in NPLs. Thus, we could argued that decrease in interest rates due to caps lessens the burden borrowers have to meet as obligations for their loans.

The findings of this study also established that interest rate caps cause banks to hike charges on loans, which impact negatively on loan acquisition. This is in line with the findings by Maggi and Guida (2009) who argue that when banks increase charges on loans and other fees to recover losses as a result of interest rate caps, this leads to situations where loans become expensive for new borrowers. As such, high cost of loan due to charges is just as similar as high interest rates. This in turn increase the potential for loan default, significantly increasing. Consequentially, when commercial banks are plagued with high levels of poor loan performance, they focus on internal consolidation and improving asset quality rather than seeking ways to provide new loan facilities to customers (Ellison & Forster, 2006).

Maimbo et al., (2014) had equally argued that capping interest rates has a negative effect not on the performance of loans, but in the profitability margins per loan facility. This was evidenced by the study findings that revealed that (96%) of respondents for this study believed that interest rate caps cuts into banks revenues and as such reduce banks profitable margins. Most if not all commercial banks are in business to make profit. Any activity or regulation that cuts into profitability is therefore not desirable.
The findings of this study have also shown that giving loans to businesses that do not have the ability to repay or who are defaulting already tends to even increase during the decreased caps on interest rates by banks. Khandker et al (2013) argues that decreased interest rates has some sort of a blind impact for commercial banks since the decrease in interest rates capping puts pressure on commercial banks in selling more loan products. Attempt of selling more loans at times leads to cases where commercial banks offer unsecured loans to businesses that might not have the ability to repay the loans as agreed by the bank (Alushula & Guguyu, 2018). Rivalry among commercial banks forces them to adopt unsecured loan models by other lending institutions which have proved to be detrimental to loan portfolio performance. An increase in unsecured loans under the low interest rates starts from the desire for commercial banks to loop small firms and the low income earners into the banks loan portfolio. However, most of these loans lack sufficient security to cushion the commercial banks in case of defaulting, hence, exposes the loan portfolio performance at risk (Helliar, 2014).

The imposition of interest rate capping is not always an issue of dooming and glooming since the countries that adopted the legislation on interest rate capping did it for economic purpose, especially with an attempt of protecting the middle and low level class citizens from being exploited by commercial banks and other financial institutions that are seeking to make abnormal profits (Trow, 2010). Having adequate levels that can regulate the interest rates help in cushioning consumers from high cost of credit accessibility, less taxes and less expenditure in servicing the credit facility obtained from commercial banks. Governments have the responsibility of ensuring that there are sufficient controls and regulations in the financial markets to correct the gaps and anomalies of high interest rates (Kleinow & Nell, 2015).

### 5.3.2 Interest Rate Capping on Deposits of Commercial Banks

The findings of this study revealed the existence of a statistically significant relationship between interest rate caps and deposits, \( r (0.881); p < 0.01 \). This means that increasing interest rates on deposits increases customers deposits in commercial banks. This finding confirms studies by Ellison and Forster (2006) that noted that higher interest rates on deposits leads to increase in customers deposits, and higher liquidity for banks. Similarly, a study that was conducted west African countries revealed a 12% increase in deposits by customers who were keen to make profit on their deposits (Klapper & Singeh, 2012). However, increase in interest payable on deposits increases banks liquidity.
This study found that (86\%) of respondents were of the view that interest rate capping increases banks liquidity which is not good for the bank in the long-term loan performance. This is because instead taking loans, customers prefer to deposit and make profit rather than be indebted to the bank. This finding is in line by Khandker, et al., (2013) noted that in as much as increase in deposits enhances banks liquidity, it provides conducive environment for borrowers since they not only find deposits profitable, but also loans cheaply. However, Porteous et al., (2010) argued that the negative effect by interest rate caps is that banks and microfinancial institutions tend to cut off SME’s and low income earners to avoid banks costs associated with loan portfolio. Similarly, the study does not make inference on the level of deposits as a result of interest rate caps, or the rate of savings customers did over the same period of time.

The findings of this study also revealed that interest rate caps on deposits decreases banks short term assets. This is due to the fact that banks are forced to pay more than they usually do on deposits. A study by Rosenberg (2009) in South Africa noted that increase in interest payable on deposits caused a 14\% increase in deposits in commercial banks in South Africa. However, the argument was not conclusive since performance loans during the same period did not record any significant impact on portfolio loan performance. This means that an increase in interest rates payable on deposits might have zero effect of actual loan facilities, unless the facilities are also affected by increase or decrease in interest rates.

The findings of this study also revealed that increase in interest rate on deposits causes an increase in customers savings. This confirms a study conducted in Italy by Gambacorta (2004) on cross sectional factors that impact Italian banks noted that higher interest rates significantly influenced customers savings. However, a study by Chaia et al., (2009) noted that household savings in Sub-Saharan Africa continues to remain low despite interetsr caps in WAEMU interest caps, and caps in countries like Zambia. Similarly, a study by Folawewo and Tennant, (2008) in South Africa had noted that an increase in interest rates on deposits do hurt banks financial position. This was the case for Malawi, where banks failed to mobilize enough deposits for loans that had been disparsed causing financial performance crisis. However, the Malawi findings seem to be contrary to this study’s findings, and findings by Jibrin et al., (2014), and Maimbo et al., (2014) that revealed increase customers’ propensity to save is enhanced by increase on interest payable on deposit.
Mbengue (2013) argues that savings are significantly important for commercial banks as well as to the nations for economic growth since savings are used by banks in lending the government and the private sector when it comes to infrastructure development, and other sectorial building initiatives within the country. When a nation’s economy is expanding commercial banks tend to have increase in savings (Gambacorta & Mistruli, 2004). They further noted that high interest rates significantly influenced savings of customers based on cross sectional factors that impact Italian banks. Savings of households in Sub-Saharan Africa has continued to remain low at 20 percent as compared to the developed nations, and some of the attributes of this can be traced back to high rates of unemployment, macroeconomic factors of sub-Saharan African nations such as inflation and high interest rates (Kiganda, 2014).

Folawewo and Tennant (2008) conducted a study on the determinants of interest spread in in Sub-Saharan African countries which revealed that interest rate increase hurted commercial banks in Namibia and Malawi in mobilizing deposits for loans which is contrary to Mang’eli (2012) who argued that increase in interest rates in deposits tend to cause an increase of customers’ propensity to save or deposit their liquid resources. This argument does not always hold to be true when the nation’s economy is under performing, it can therefore be argued that regardless of the demand and supply forces that attributes the free market and the interest rates effect is limited to economic status of a nation (Corb, 2012).

### 5.3.3 Interest Rate Capping and Profitability of Commercial Banks

The findings of this study revealed that the existence of a positive and statistically significant relationship between interest rate capping legislation and profitability of commercial banks, r (0.920); p-value < 0.01. Several variables were examined including, sales targets, return on assets, charges on deposits, credit risk and charges on bank transactions. The variables contributed to a statistically significant relationship between interest rate capping and profitability of commercial banks. The findings are in line with Alushula and Guguyu (2018) who argues that the main sources of revenues for commercial banks is made through interest rates difference. Therefore, interest rates affects the profits of commercial banks directly and should be looked cautiously as the commercial banks will have no option rather to deploy retrechment strategy to reduce the number of employees if they do not generate enough revenues to cater for their operation costs.

Kimwomi and Muturi (2018) among various factors that can have a great impact on commercial banks’ returns and profits made, the rate of interest is the most significant. Income
earned form the rate of interest becomes the great source of revenues for most financial institution. According to Anbar and Alper (2011) commercial banks are continously exposed to the interest rate risk and therefore changes in the interest rate affects the profitability of commercial banks essentially through the increase in the cost of funding and by reduction in the returns on assests and lowering the value of bank’s equity.

The findings shows that commercial banks pose interst rates on loans and bank charges to enhnace their profitability in times where interst capping legislation dictates the market. According to Ahmed (2011) profitability encourages commercial banks to impose interest rates on loans. He further indicates that the role of Microfinance insitutions in the African economy content that the regulatory regimes should aim at enhancing fair competition rules which allows small players in the financial markets to find their space and influence interest rates both on loans and deposits by banks on loans. In a study conducted by McClain and Meier (2013) to examine the costs and benefits of interest capping and trade, along with some investigation of the actual mechanisms by which the system is expected to function. Their study indicated that interest rate capping reduced profits of the financial institutions which had impact on the economy in terms of development. In addition interest rate capping legislation also hindered trade between America and other countries.

The findings also showed that interest rate capping exposes a potential credit risk on bank loans which has a significant implication on its profitability. According to Knauer and Sommer (2012) The role of credit risk management in banks is to maximize the bank’s risk-adjusted rate of return by maintaining credit risk exposure within the accepted parameters. Credit risk adversely affects profitability of commercial banks especially when the interest rates are capped. With interest rate capping legislation, commercial banks are unable to charge unsecured loans at a higher rate compared to secured loans. Securitization of laons being granted by commercial banks reduces banks insolvency, increases profitability, provide liquidity and leads to a great supply of credit among financial institutions. Kavwele et al (2018) argues that commercial banks gather a lot of infromation from borrowers before issuing credit. The process of verification is done in order to reduce the risk of defaulting. Credit monitoring of businessese and entrepreneurs has grown rapidly over the past years and the lending relationship alone is not enough to reach the optimal financing terms set by the banks.
5.4 Conclusion

5.4.1 Interest Rate Caps Legislation on Loan Portfolio of Commercial Banks

This study sought to establish how legislation imposing interest rate caps was impacting in loan performance. This study has established the existence of a significant relationship between interest rate caps and loan performance. Therefore, the study concludes that interest rate caps cause banks to increase loan processing fees as a way of enhancing revenues lost from interest rate caps. Similarly, interest rate caps cause commercial banks to increase insurance fees on loan as a way of compensating for lost revenue on loans making it difficult for SMEs and customers seeking microfinance products to access this loan facilities and products.

5.4.2 Impact of Interest Rate Capping on Deposits of Commercial Banks

This study sought to establish how legislation imposing interest rate caps was impacting deposits. The study found that there exists a statistically significant relationship between interest rate caps and deposits. Therefore, this study concludes that increase in interest rates payable on deposits increases customers’ deposits with commercial banks. Similarly, increase in interest rates on deposits increases customers’ savings in commercial banks. Increase in interest rate on deposits has both positive and negative impact on banks liquidity. High liquidity due to high deposits is good for the banks in the short run, however, if the bank continues to hold to hold high liquidity due to deposits, without advancing loans hurts the banks loan performance in the long run.

5.4.3 Interest Rate Capping and Profitability of Commercial Banks

The study sought to establish how interest rate legislation impacts profitability of commercial banks. The study found a statically significant relationship between interest rate capping and profitability. Therefore, this study concludes that interest rate capping has a negative implication on profitability of commercial banks since it poses a credit risk on loans granted to customers. Interest rate capping forces banks to impose bank charges on deposits as well as service fees on laons with the attempt of enhancing their profits.

5.5 Recommendations

In the sub-section, recommendations are provided in terms of recommendations for improvements and recommendations for further studies.
5.5.1 Recommendations for Improvement

5.5.1.1 Interest Rate Caps Legislation on Loan Portfolio of Commercial Banks

Since the findings of this study have established the existence of a significant relationship between interest rate caps and loan performance, the study recommends that management at commercial banks listed at NSE should balance fees chargeable on each loan product as processing fee to a percentage of the loan. This should be same to insurance fees, and legal fees to avoid situations where microfinance and SME loan products becoming expensive for customers to afford. This will not only ensure that customers still seek loans, but also ensure revenues on loans are adequate to enhance loan performance.

5.5.1.2 Interest Rate Capping on Deposits of Commercial Banks

This study established the existence of a positive statistically significant relationship between interest rates and deposits. Therefore, this study recommends that high liquidity generated from customers’ deposits should be invested in other banking products to customers instead of the funds in the banks accounts. This will help put the excess liquidity into profitable venture that would help the bank increase revenues and profitability to compensate for high interest payable on customer deposits.

5.5.1.3 Interest Rate Capping and Profitability of Commercial Banks

The study established a statistically significant relationship between interest capping and profitability. Therefore, the study recommends that commercial banks should develop a minimum an optimum level for increasing loan processing fees and insurance fees that is mutually beneficial to the bank and customers. There is also need to enhance competitive loan products for different market segments, to ensure loan products are competitive on the financial market. Finally, there is need to increase financial literacy training on consistent and constant basis to ensure that customers who reserve loans find value in choosing commercial banks loans. This will not only enhance banks loan performance, but also help customers utilize loan funds in profitable ventures with adequate revenues to service the loan and remain profitable.

5.5.2 Recommendations for Further Studies

This study investigated the impact of interest capping on credit granting by commercial banks by investigating credit performance portfolio, customer deposits and profitability of commercial banks as a result of interest rate capping legislation. Future studies can examine
the impact of interest rates on other sectors listed in NSE such as agriculture, gas and petroleum, retail and construction industry.
REFERENCES


APPENDICES

APPENDIX I: QUESTIONNAIRE

SECTION I: GENERAL INFORMATION
The section contains general questions, kindly respond appropriately.

1. Kindly specify your gender.
   [ ] Male    [ ] Female

2. Kindly indicate your age bracket below.
   [ ] 18-25 years   [ ] 26-34 years   [ ] 35 – 44 years   [ ] 45 and above

3. Kindly indicate your level of education.
   [ ] Certificate
   [ ] Degree
   [ ] Master’s Degree
   [ ] Doctorate Degree

4. Kindly indicate the number of years you have worked in your organization.
   [ ] less than 1 year   [ ] 1-5 years   [ ] 6-10 years   [ ] above 10 years

5. Kindly indicate your job description
   [ ] Top Management
   [ ] Middle Management
   [ ] Lower Level Management

SECTION II: The Impact of Interest rate Caps on Loan Portfolio of Commercial Banks
This section contains question on the impact of interest rate capping on loan portfolio, kindly use the Likert scale with measures of 1 to 5 where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree. Kindly (√) appropriately in the table below.

<table>
<thead>
<tr>
<th>NO.</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Legislation on interest rate capping has decreased your loan portfolio performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. Interest rate capping legislation has forced your bank to increase loan administration fee.
8. Interest rate capping law has reduced your profit margins from loans.
9. Legislation on interest rate capping has caused a reduction in non-performing loans in your organization.
10. You have increased loan insurance fee due to interest rate capping.
11. There has been a reduction of loans to SMEs due to interest rate capping legislation.
12. Interest rate capping legislation has negatively affected the bank’s financial performance overall.
13. Interest rate capping legislation hinders your loan portfolio targets.
14. Interest rates on loans should be determined by the market forces for you to have a health performing loan portfolio.

SECTION III: The Impact of Interest Rate Capping on Deposits of Commercial Bank

This section contains question on the impact of interest rate capping on deposits of commercial banks. Kindly use the Likert scale with measures of 1 to 5 where 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree. Kindly (√) appropriately in the table below.

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>There has been an increase in rates payable on deposits due to the interest rate capping.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Do you think interest rate capping has caused an increase in customer deposits in your bank?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Interest rate capping has increased liquidity in your bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>There has been a reduction in revenues due to the interest rates charged on deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Profitability has been affected by high interest rates on customer deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Interest charged on deposits due to interest capping legislation has caused a reduction in your short term assets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>There has been an increase in savings due to the interest charged on deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Loan application has decreased due to high interest rates charged on deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Interests posed on deposits should be determined by the market forces.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Questions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>24</td>
<td>Imposing rate caps on deposits should be abolished to enhance friendly rates on deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Interest rate capping has attracted customers to make more deposits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION IV: Interest Rate Capping and Profitability of Commercial Banks

Kindly use the Likert scale provided in section II to answer the following questions.

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Interest rate capping has affected the bank’s profitability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Due to interest rate capping legislation the bank has not been able to meet its sales targets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Interest capping legislation has reduced the bank’s return on assets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>The company has increased charges on deposits to enhance profitability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Interest rate capping legislation has posed a high credit risk to the bank’s loans.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Interest rate capping legislation has increased the amount of non-performing loans.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Non-performing loans has reduced the bank’s revenues.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Increased credit risk due to interest rate capping legislation has affected your loan portfolio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Interest rate capping legislation has forced the bank to increase charges on banking transactions in order to sustain profits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation