THE EFFECT OF INTEREST RATE ON THE UPTAKE OF LOANS: THE CASE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

I declare that this is my original work and has not been presented for an award of any degree in any University.

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This research project has been submitted for examination with my approval as the candidate's university supervisor.

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DEDICATION

A special dedication goes to my mother, Dera Abduba for her love, prayers, guidance and above all for teaching me from early age the virtues of honesty, hard work, diligence and perseverance.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBK	Central Bank of Kenya
EU	European Union
IMF	International Monetary Fund
KBA	Kenya Bankers Association
KBRR	Kenya Bankers Reference Rate
KWFT	Kenya Women Trust Fund
M&A	Mergers & Acquisitions
MPC	Monetary Policy Committee
NPA	Non-Performing Asset
NPL	Non-Performing Loans
NSE	Nairobi Securities Exchange
SPSS	Statistical Package for Social Science

ABSTRACT

The objective of this study was to determine the effects of interest rate capping on the uptake of loans among commercial banks in Kenya. The study adopted descriptive research design. The population of the study was the forty-two commercial banks registered with the Central Bank of Kenya. The study used secondary data collected from the Central Bank of Kenya. The data was analyzed using multiple linear regression technique. The study established that there was significant negative relationship between capping of interest rate capping and uptake of loans among commercial banks. From the findings, the loan growth in commercial banks had declining trends in the periods after introduction of interest rate caps and hence strongly confirming that the approach has nosedived to address the market failure as expected by the government. The study recommends that the government through Central Bank and KBA to advocate for more market based regulations which would ensure affordable and accessible financing for the small businesses and startups hence promoting enabling environments for entrepreneurial activities in the country.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Interest rate is the cost a debtor pays for taking a facility from financial bodies or fees paid for on-loan assets (Crowley, 2007). Interest rate capping on the other hand is the process of putting a tag on the maximum chargeable rate to a borrower. Interest rates helps in determining the current market and provides information about future inflation (Ndun'gu, & Ngugi, 2000).

The Banking Amendment Act No. 25 of 2016 took effect on September 14, 2016. Under this amendment, banks were limited to charging a maximum interest rate on a credit facility at a rate not more than 4% and the lowest interest rate allowed on a deposit held in interest yielding account to at least 70% of the Central Bank Rate. The objective was to promote a savings culture among the Kenyan public but most importantly to lower cost of credit, resulting in growth of credit flow to private sector.

In nations where rate caps have been introduced, the main reasons were protection of customers from exploitative interest rates, to ease access to funds and to make costs of loans friendlier. Countries including European Union (EU) member states (Spain, Portugal, Belgium et al), African countries (Nigeria, Ivory Coast, Mali, Zambia, South Africa et al) the United States as well as some Asian countries (India, Pakistan et al) have regulated interest rates. In Thailand, the objective was to ensure financing affordable for low-income borrowers. In Zambia, it was to regulate the observed risk of over funding and the highly priced credit and to enhance better access to the undeserved.

According to Exotix, an Investment Bank, Kenya's GDP growth is driven by credit growth and with the capping of interest rate credit growth might slow down. According to the Eighteenth Biannual MPC Report during the six months to April

2017,the credit growth to private sector slowed down to 2.4 percent over twelve months period to April 2017 as the committee continued to monitor the implications of adoption of interest rate capping in September 2016 and suspension of KBRR framework in January 2017.There was also suggestions that the small and medium businesses have been disproportionately affected by what is believed to be rigid credit standards with banks gravitating lending to safe borrowers.

Classical Theory of Interest, Keynes' Liquidity Theory, Rational Expectations Theory and Loanable Funds Theory contributions was discussed in the understanding interest rate. In Classical Theory interest rate is price paid for supply of savings, Keynes' Theory states that interest rate cost paid for borrowed funds whereas in Loanable Funds Theory interest rate is equated to intersection between supply of loanable funds and credit demand.

1.1.1 Interest Rate Capping

Interest rate capping on the other hand is the process of putting a tag on the maximum chargeable rate to a borrower. Interest rates helps in determining the current market and provides information about future inflation (Ndun'gu, & Ngugi, 2000).

Interest rate capping in practice of usury laws signifies one of the oldest and the most used government intermediation in the financial markets. According to Miller & Black (2016), the earliest advocates for usury laws suggested on a zero-interest rate and that governments ranging from the early Egypt over to the present day have executed interest capping for varied reasons.

Samuel & Claudia (2014), in their policy research working paper made conclusions that interest rate ceiling in of the most industrialized countries have been declining in the past several decades and that a number of developing countries have continued

liberalize their financial policies. However, the financial recession of 2008 opened the discussion of interest rate ceilings as an instrument for customer protection. In fact, countries such El Salvador, Zambia introduced fresh interest ceiling on loans after the financial recession and others for example Japan have imposed more restrictive controls.

The republic of Kenya too joined its peers in August 2016 when the National Assembly passed the Banking Amendment Act 2015 bill and after the president's ascent the law became effective. The main aim of the government was to reduce the cost of borrowing and to ensure accessibility of funds by the common citizens.

1.1.2 Loan Uptake

Loan uptake is the ability of the potential applicant to access loan from a given financial institution or market. According to Micah and Gibbs (2013), loan uptake is a function of the level of collateral, the ability to pay, availability of liquidity, the rate of chargeable interest rate and capacity to handle the varying challenges of the lending institutions. These are main conditions affecting loan uptake in financial institutions.

Central Bank of Kenya categorized loans into corporate loans which are advance to large corporate entities, Business loans advanced to small and medium entities and individuals and Personal loans which are granted to individuals for personal or household use.

According to Central Bank of Kenya (2016) Bank Supervision Annual Report the gross loans improved by 5.6 percent from Ksh 2.17 Trillion to in December 2015 to 2.229 Trillion in December 2016 growth attributed to the demand for credit by various economic sectors.

The measures of loans uptake according to the Central Bank of Kenya are through the growth of loans portfolios overtime, the number of loan applications and approvals, size of the loan applications and number of Credit Bureau Reports by Banks. In this study, I analyzed the growth of the loan book portfolios of commercial banks in Kenya in the period before and after interest rate capping to find out if there is any change with the ceiling of interest rate.

1.1.3 Interest Capping and Loan Uptake

The capping of interest rate was expected to increase the access of loans and hence the increase in the loan book portfolios of the commercial banks. There is however notion that especially in the medium and small tier banks which were hard hit by high provisions for nonperforming loans are selective in advancing loans to micro and small businesses to cushion their bottom line hence the probability of shrinking loan books. (Kenya Banker Association, 2016)

According to IMF (2016), interest rate capping by Central Bank of Kenya was likely to reduce access to credit and weigh down the growth. The fund however stressed the importance of setting a formal interest corridor so as to strengthen monetary policy framework.

Kenya Bankers Association (2017), the interest rate capping does not address market failure but introduces one. This is because of the expectations that banks will prefer lending to government than households and business hence leading to credit rationing and distortions. According to Loanable Funds Theory, it is expected that an inverse relationship exists between the loanable funds and interest rate.

1.1.4 Commercial Banks in Kenya

Central Bank of Kenya classified commercial banks in Kenya to three peer groups large, medium and Small according to the market share, asset base and number of

customer deposits. According to the Central Bank 2016 Banks Supervisory Report, the banking industry comprises of 42 commercial banks where Chase bank and Imperial bank are under receivership. 39 out of the 42 has private ownership while the government has majority stake in 3 institutions. Out of 39 privately owned, 25 were locally owned while 14 were foreign-owned.

The gross loans in these banks have over the years grown to 2.229 Trillion as at December 2016 a growth of 5.6 per cent from December 2015.The total net assets grew by 5.8% from Ksh 3.5 trillion in December 2015 to Ksh 3.7 trillion in December 2016 caused by increase in loans and advances. Customer Deposits grew by 5.3 per cent from Ksh. 2.49 trillion in December 2015 to 2.62 trillion in December 2016 the growth was reinforced by mobilization of deposits through agency banking and mobile banking platforms (Central Bank, 2016)

According to the Cytonn Investment (2016), Kenya is multi banked with comparatively high number of banks to the total population, where 42 banks serves 44 million people equated to Nigeria's 22 against 180mn and South Africa's 19 for 55mn.This overbanked setting has already instigated leading to consolidation in the sector and sensitive M&A activity. M Bank from Tanzania was agreed the go ahead to 51% of the Oriental Commercial Bank, GT Bank securing Fina Bank, Mwalimu Holdings securing Equatorial and I&M acquiring GIRO over the past two years.

1.2 Research Problem

Interest rate capping in Kenya came as a result of government intervention to the high interest rate charged by the commercial banks. The idea was to make the credit more affordable to individuals and hence easily accessible. There is however probability of shrinking loan portfolios in some medium and smaller banks as they hedge themselves against high NPL provisions through selective lending.

Reifner, Clerc-Renard & Knobloch (2009) on their study on Interest Rate Restriction in the EU member states established two key findings as in some states the interest rate capping was defended as high credit price reflected increased consumer insolvency and malfunctioning of markets and other states justified absence of the caps on the basis that it would condense access to credit particularly to the populaces with restrained earnings.

According to a study on Impact of the New Financial Services Law in Bolivia on Financial Stability and Inclusion which examined credit quotas and interest rate ceilings, the targeted segments were found growing as intended per the law but increasing amount of loans from microfinances institutions and declining amount of borrowers pointed to the unfavorable effects of interest rate capping on the financial inclusion. (IMF Working Paper, 2015)

A study by Happy, Gerhard & William (2002) in South Africa on the Effects of the Interest Rate Capping on the Micro Lending Market established that the proposed linking of Interest ceiling to prime rate was illogical in that the biggest cost item of micro lenders is the running costs and not cost of capital.

Local studies done by Dr. Douglas, Lilian & Muniar (2015) indicated that Loan pricing has significant impact on the level of Non-Performing Assets (NPA) and they recommended financial institutions to charge friendly interest rates that will allure additional creditors therefore increasing revenues from interest income. Ngacha (2013 also established that positive connection existed concerning increase in rate of interest and the level of Non-Performing Loans. Dr. Fredrick & Husborn (2012) in their study on the investigation on the factors hindering Mortgage Finance in Kenya made findings that main factors affecting access to mortgage lending is credit risk especially

for the low-income earners as it increases the chances of defaulting and they recommended that banks should change their marketing strategies and the government to form efficient policies in support of mortgage market. Nancy (2016) in her study on effects interest rates on products of Microfinance Finance instructions made inferences that borrowers uptake of KWFT products was due to lower interest rate compared to other microfinances in the country, well developed and structured products and services that suit their customers' needs.

From the foregoing discussions and also considering the fact that interest capping is a new concept in Kenya, a gap has been identified since none of the researchers have done any studies on this topic above hence, this study sorts to address and determine the effects of interest capping on the uptake of loans in the commercial banks in Kenya.

1.3 Objective of the Study

To determine the effect of interest rate capping on the uptake of loans among commercial banks in Kenya.

1.4 Value of the Study

To scholars and academicians, the study resolves to contribute to the body of knowledge and it also suggests area of study. The outcome of the research will be very vital for reference by other researchers. It will also provide an area of further study which the future researchers can base their scope of study.

Commercial banks and other financial institutions will also greatly benefit from this study as they will learn how interest capping will affect their performance and what better approaches they will adopt for mitigation to counter the undesired effects of the interest rate caps.

The government will definitely get to learn from this study how the policy decisions on the accessibility of credit at lower cost can be met. This is because lessons would have been learnt on whether interest rate capping only form of market intervention or others strategies exist with better results.

It will also be of great value to the Central Bank of Kenya in establishing regulations which are effective. This will be of benefit to the regulator in a bid to ensure efficient market based policies are adopted. It will also be able to find out the effects of the interest rate caps across the banks and whether the effects are felt entirely in the industry.

The study will also bring into light new knowledge on capping of interest rates and its effects on the uptake of loans in the commercial banks. This will provide a case study especially in the region considering Kenya is the only country in its East African Community that has so far passed the law interest rate and the effect on the economy is been keenly followed by its counterparts.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter reviews theories and empirical studies relating to the area of study. It concludes with a summary of the literature reviewed and research gap identified.

2.2 Theoretical Review

This segment addresses the key interest rate theories and their contribution to the research area. The theories include Classical Theory of Interest, Keynes' Liquidity Theory, Rational Expectations Theory and Loanable Funds Theory.

2.2.1 Classical Theory of Interest

The Classical Theory of Interest is also identified as Demand and Supply theory forwarded by economists Marshall and Fisher. Pigou, Cassel, Knight and Taussig later worked on the theory in a bid to modify it. This theory explains the concept of interest by use of classical theory of economics. Interest rate is stated as an element that compares savings to investment (Phelps, 1994).

The theory explains interest rate as the point of equilibrium where savings and borrowing demand curves intersect. Demand for capital come from business people who would like capital goods ventures. Therefore, when savings is more than investments, the rate of interest will fall and when investments exceeds savings, interest rate will rise until it reaches a point of indifference. The increase in interest rate will motivate savings (Gorder, 2009)

Therefore, classical economics argues that interest rate is the price paid for supply of savings. One of the limitation of this theory is that it flops to account for other factors above and beyond supply and demand.

2.2.2 Keynes' Liquidity Theory

This theory is based on economic growth theory which was developed by John Maynard Keynes in 1891.The value for money is for both transactionary motive and store of wealth. According to Keynes, there are three motives of money that is transactionary, precautionary and speculative.

The theory centers on the demand and supply of money as key element of interest rate. Interest is the cost paid for borrowed funds. The assumption is that people will forgo the interest they will earn on money held currently but instead have it in hand as a precaution. Increase in interest rate means more profits which in turn will call for unwillingness to hold money presently (Keynes, 1936).

According to Keynes, a small change in interest rate brings about a major change in speculative demand for money. The theory demystifies that people will always hold money for immediate consumptions. One of the shortcoming of this theory is that it points out liquidity preference as the only element governing interest yet there are other factors that affect rate of interest by determining demand and supply side of money.

2.2.3 Rational Expectations Theory

This theory was first proposed by John F. Muth, who was from Indiana University. The theory states that people makes choices based on rational outlook, past experiences and available information.

The underlying statement of the rational expectation theory is the hypothesis of rational expectations. This hypothesis positions that investors form expectations of future interest rate realistically which implies that there is firm economic environment. Investors understand the environment and are able to make calculations about future interest rates. (Cook & Hahn, 1990).

Economics have used the rational expectations theory to understand conditions in which speculation about the future is vital in influencing current action. The theory narrates that any expected variations in economic factors will result in changes in future interest rates (Gorder, 2009).

2.2.4 Loanable Funds Theory

The theory was founded by the Swedish economists Knut Wicksell and later on Ohlin et al formulated this theory. Loanable funds comprise all form of credit such as loans, bonds and savings deposits. In this to the theory, percentage of interest is influenced by demand and supply of loanable funds.

Interest rate is equated to an intersection between loanable funds supply and credit demand. It is believed inverse relationship exists between the loanable funds and the interest rate. Factors like government, foreign borrowing, consumers and domestic determine loanable funds while on the other hand supply is derived from foreign lending and domestic savings (Snippe, 1983)

The economic financial and monetary situations help in reacting to short term and long-term interest rates (Gorder, 2009). One shortcoming of this theory is the assumption that the national income will remain constant which is not practical as the level of income change with level of investment.

2.3 Determinants of Loan Uptake

Following from theoretical point of view, a couple of empirical studies have identified the determinants of loan uptake and effects of interest capping. Among these determinants are the lending interest rates, volume of deposits, liquidity ratios, exchange rates, inflation and economic growth.

Therefore, the variables which are selected, discussed and used in the study are lending rates, volume of deposits and inflation rates.

2.3.1 Lending Interest Rate

Interest rate is the sum charged, stated as percentage of the principal by the moneylender to the debtor for financial resources. In the Keynes' liquidity theory interest rate is the charge paid for the on loan funds. Maranga et al. (2017) established that the response of investors changes strongly with change in interest rates which the basis of money making analysis and that interest is a solid factor in financial policies.

2.3.2 Demand for loans

The demand for loans is the appetite of the businesses for bank financing which could be attributed to the growing level of economy and changing regulations among other factors. Aryeetel et al. (1994), demand for loans can be classified into perceived, potential and revealed. Perceived demand is characterized by position where businesses assume they need cash, potential is need for loans which is yet to materialize due to market inadequacies and institutional obstructions. Revealed demand is described as the on-paper application for financial request at a particular rate of interest. Gale (1991) on the other hand well-defined effective demand as sum of loans that financial institutions are willing to lend to debtors.

2.3.3 Deposit Volumes

Deposits are funds placed by customers with commercial banks in form of normal savings or fixed deposits. Deposits are the backbone of the private sector credit. Growth of deposit levels primarily depend on interest rate, economic growth, inflation, remittance inflows and money in flow. Olokoyo (2011), in his study of predictors of lending behavior of Nigerian Banks considered volume of deposits, foreign exchange, investment portfolio, minimum cash reserve ratio, lending rate, liquidity ratio and GDP. The findings were that the investment portfolios, deposits and liquidity ration have significant effects on lending volumes.

2.4 Empirical Studies

Mbua (2017) carried a study on the effects of interest rate capping on listed commercial banks shares in the NSE, Kenya. Objective of the study was to find out whether the interest rate capping is important when investing in bank shares, how attractive the eleven listed banks shares were after interest rate capping and extent to which interest rate capping makes event study. The research design used for the study was observational survey, data collected using checklist and inferential statistics used to find out correlation between variables. The findings established that after interest rate capping the banks shares became less attractive and the investors were worried about the profits made by these institutions.

Mwangi (2016) performed an empirical research on the effects interest rate on the MFIs products in Kenya, a case study of Kenya Women Fund Trust in Nairobi County. The study sought to accomplish the factors that led to uptake of loans at KWFT as compared to other microfinances and its impact on the borrowers. The study implemented a descriptive research design and the data was collected using structured questionnaires and interviews. The study population was the credit officers of KWFT and the researcher used stratified sampling technique where sample of 150 respondents were obtained. Microsoft Excel and SPSS packages were used to analyze the research findings. The research findings established that the loans uptake at KWFT was due to the low interest rate compared to other microfinances, well developed and structured products, sizeable loans and flexible repayment periods.

Msangula (2015) carried a research on the effects of loan interest rate on the performance of SMEs in Tanzania a case study of Vision Fund for 4 weeks in April to May 2015. The data of the study was collected using structured questionnaires and was administered to 83 respondents. Quantitative and qualitative methods were used

in analyzing the data collected. The conclusions made was that loan interest rate has positive effects on the income of SMEs and that however the business growth has been derailed by high loan interest rates charged compared to other loan providers.

Dr Kalui et al, (2015) carried a study on the selected factors hindering mortgage finance in Kenya. The study involved a census study of 44 commercial banks in Kenya according to the Central bank of Kenya. The primary data was gathered using questionnaires issued to their credit analysts in their head offices. The data was analyzed through regression equation which examined relationship between factors and access to mortgage credit. The findings derived was that the main factor affecting access to mortgage finance was the loan risk as the banks take caution when they lend out.

Onuko, Muganda & Musiega (2015) did empirical study on effect of credit management on loan quality portfolio of Tier 1 banks. The research took loan pricing as the independent variable and loan quality portfolio as the dependent variable. The study applied descriptive research design, financial reports of five tier one commercial banks was analyzed between the years 2009-2013.The method adopted for data collection was both primary and secondary, descriptive research design was used and further analysis by regression model. The findings impacted that loan pricing has positive impact on the level of NPA.

Zakary (2015) did an empirical study on the effects of interest on the demand of loans by SMEs in Nairobi County. The research adopted correlation research design and the data was collected using structured questionnaires from SMEs in Nairobi County. The collected data was analyzed using the SPSS computer package, both descriptive and

inferential statistics were used too. The findings presented there was solid relationship between demand for loans and interest rate.

Ekweny (2014) performed a study on the effects of interest rate volatility on nonperforming loans of listed commercial banks in Kenya. The study used several interest rate theories like loanable funds theory, credit market theory and loan pricing theory. The research design adopted was longitudinal case, the population of the study was the eleven listed commercial banks in Kenya. The research data was gathered from Central Bank of Kenya in the years 2002-2013.The findings of the study established that interest rate volatility positively influenced the nonperforming loans in the listed commercial banks in NSE at a given time.

Ngele (2013) performed a study on the effects of borrowers' uptake in commercial banks in Kenya. The descriptive research and multiple regression model was used, secondary data was collected by reviewing topic under study and the commercial banks. The study covered period between 2005 to 2013 and the findings stated that the level of interest rate, level of deposits and inflation are significant in uptake of credit facilities.

Mohane (2003) performed as study in South Africa on the effects of interest rate capping on microfinance market, a case study of micro lender. The objective was to find out the effect interest rate capping will have on micro lending market. The study undertook financial impact analysis of micro business to determine the effect of the change. The data was analyzed for the periods before and after the caps came to effect, regression was used. The findings revealed that interest rate capping could act as constraint to the provision of loans to low income earners and operators of small business enterprises.

Daniel Villegas (1989) carried a study on the effects of interest rate capping on the consumer credit. His findings established that interest rate ceilings depressingly affected the level of credit accessible to the moderate income earners residing in the states with interest rate caps.

2.5 Conceptual Framework

This is a set of general thoughts and doctrines obtained from related fields of investigation and utilized to arrange for a successive submission (Smyth, 2004; Kombo and Tromp, 2009). It enables a researcher to generate cognizance and appreciative of the circumstances beneath inspection but subject to presentation. Similarly, this framework has prospective importance as an instrument to support the study to arrive at subsequent and useful findings. Further, the conceptual framework develops a segment of the outline for intervention to be examined, confirmed, revised and improved as a result of examination. According to Smyth, (2004) it describes the possible links between the variables. In this study, the presented framework indicates the relationship of interest rate capping and uptake of loans in Commercial Banks in Kenya as shown in figure 2.1.

Independent Variables **Dependent Variable**

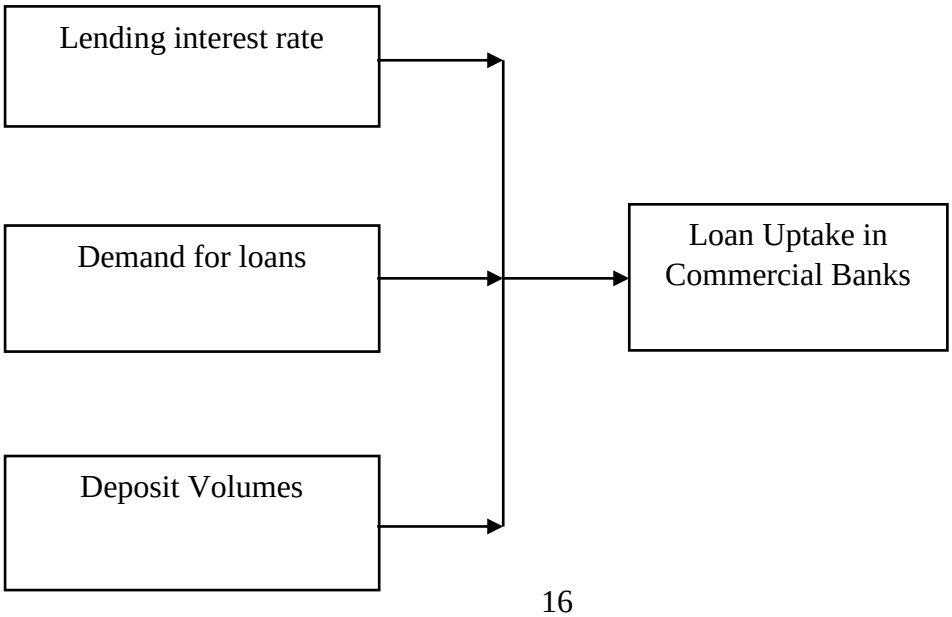

Figure 2.1: Conceptual Framework

2.6 Summary of Literature Review

From the review of existing researches, it was apparent that there was relationship between interest rate and the income, growth of business, uptake of loans and other products of lending financial institutions.

Some other researchers also argued that interest rate capping act as constraint in provision of loans to microfinance sector of the economy and the suggestions of better ways reducing interest rate on loans and improving access to financing.

Theoretical review on the other hand laid down they key determinants of interest rate in an economy and how it affects the demand and supply side of money circulation depending on the level of investment.

The research on interest rate capping in Kenya and its effects however hasn't been fully documented considering the fact that it's relatively new concept. This study will therefore focus on covering this space by addressing the effects of interest rate capping on uptake of loans for the eleven commercial banks in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, population, data collection and data analysis method that had come in handy for the study.

3.2 Research Design

The study adopted descriptive research to institute whether connection exist between interest rate capping and uptake of loans in commercial banks in Kenya. Descriptive research is used to describe the characteristics of a phenomenon. It is used to provide information about the current condition of a phenomenon and to portray what exists in line with variables in a situation. (Nachmias and Nachmias, 1996).

3.3 Population

The 42 commercial banks in Kenya will be population of this study (Appendix 1). Population is whole group of individuals, groups or events with noticeable appearances (Mugenda and Mugenda, 2013).

Coopers and Schindler (2008), a population is also stated as the total collection of elements about which the researcher wishes to make inferences for the research. Given the small scope of the population a census approach shall be adopted.

3.4 Data Collection

The study gathered secondary data from Central Bank of Kenya. This was the data on interest rate and the loans commercial banks in Kenya. The data was tabulated in the data collection sheet.

The data obtained mainly covered the Quarters 1,2, 3 and 4 2016, and the same period 2017.This period was chosen because of the occurrence in terms of interest rate capping and was very objective in analyzing the effects of the changes.

3.5 Data Analysis

The Statistical Package for Social Sciences was used to help in data analysis.

Regression analysis was then used to find out the type of connection that existed between the interest rate capping and uptake of loans in commercial banks in Kenya. The correlation coefficients were used to determine the degree of relationship between interest rate capping and uptake of loans in listed commercial banks.

3.5.1 Analytical Model

In order to find out whether there was relationship between interest rate capping and uptake of loans in commercial banks in Kenya, the research first and foremost ascertain the regression and correlation coefficients using the following model:

$Y= \beta_0 +\beta_1 X_1+ \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where:

Y = Loan uptake in Commercial Banks in Kenya measured by the total loans growth quarterly taken from CBK

β =Coefficients of the independent variables

X_1 =Lending Interest Rate measured by quarterly average before and after Interest rate capping

X_2 = Demand for Loans measured by number of CRB Reports applied quarterly divided by numbers in previous periods

X_3 = Deposit Volumes measured by the deposits movements quarterly divided by values in previous periods.

ε = Random error

3.6 Test of Significance

The study used the analysis of variance (ANOVA) to examine the impact of the effect independent variables on dependent variable in panel data model. ANOVA delivered a statistical test of whether the mean of various variables was equal. Significance will be pegged at 5% level.

CHAPTER FOUR:DATA ANALYSIS,FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter presents of data analysis, findings and interpretations on the data gathered to address objective of the study. Descriptive statistics and model results were also presented in the data.

4.2 Descriptive Statistics

This part examined the descriptive statistics for independent and dependent variables. Each variable is examined based on its mean and standard deviation.

Table 4.1: Descriptive Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Loan Uptake	293	-.02	.18	.0477	.06578
Lending Interest rate	293	.14	.18	.1599	.02191
Demand for Loans	293	.78	1.20	.9663	.17914
Deposit Volumes	293	1.02	1.10	1.0647	.02770
Valid N (listwise)	293				

From the table 4.2 above the lending interest rate generated by commercial banks had a mean of 0.1599 and a standard deviation of 0.02191. The loan uptake had a mean of 0.0477 and a standard deviation of 0.6578. The loans uptake dropped after the introduction of interest rate capping. The growth of loans in the three quarters of 2017 was lower compared to the same period 2016 a clear indication that interest rate capping had a undesirable impact on the uptake of loans in commercial banks.

4.3 Correlation Analysis

Correlation analysis shows the connection between two variables. It ranges from 1 to -1 where 1 shows a robust positive relationship and a -1 specifies a strong negative relationship and a zero indicates lack of link between the two variables. The nearer the correlation inclines to zero the weaker it becomes. The correlation between uptake of loans and lending interest rate was relatively strong and positive (0.535) and significant (0.0216). This shows that a change in uptake of loans and interest lending rates moved in the same direction though the relationship was not very strong (0.535). However, the relationship is statistically substantial at a p value of 0. 0216. The correlation between uptake of loan and demand for loans and deposit volumes was -0.603, 0.01524 0.215 and 0.00644 respectively and with statistically important relationships.

Table 4.2: Pearson's Correlation

Correlations

		Y	X1	X2	X3
Y	Pearson Correlation	1	.535	-.603	.215
	Sig. (2-tailed)		.0216	.0152	.014
	N	293	293	293	293
X1	Pearson Correlation	.535	1	-.985**	-.535
	Sig. (2-tailed)	.0216		.000	.216
	N	293	293	293	293
X2	Pearson Correlation	-.603	-.985**	1	.393
	Sig. (2-tailed)	.0152	.000		.383
	N	293	293	293	293
X3	Pearson Correlation	.215	-.535	.393	1
	Sig. (2-tailed)	.00644	.216	.383	
	N	293	293	293	293

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

4.4 Regression Analysis

The study conducted regression analysis to establish the effect of interest capping on the uptake of loans in commercial banks.

$Y= \beta_0 +\beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where Y was the loan uptake in commercial banks. X_1 was Lending Interest Rate measured by quarterly average before and after Interest rate capping, X_2 was demand for loans measured by number of CRB Reports applied quarterly divided by numbers in previous periods and X_3 Deposit Volumes measured by the deposits movements quarterly divided by values in previous periods.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842	.708	.416	0.05026

The study pursued to find out a regression model significance, the required data is contained in above Table 4.4; a correlation coefficient of 0.842 was arrived at. This portends a very good connection or dependency of lending rate, demand for loans, deposit volumes and loan uptake in commercial banks. Coefficient of determination(R-Square) value of 0.708 was reach at. This emphasizes the fact that interest rate capping accounted for 71% changes in loans advanced in commercial banks in Kenya.

Table 4.4: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.

Regression	0.018	3	0.06	2.426	0.0243
Residual	0.008	3	0.03		
Total	**0.26**	**6**			

ANOVA was administered to check the significance of the regression model as relates to importance in the differences in means of the response and projector variables. The ANOVA test produced an f-value of 2.426 which was significant at 0.05 significance level (p = 0.02). This illustrates that the regression model is significant at 95% confidence level; that is has 2% probability of misrepresentation.

Table 4.6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	-7.557	6.401		2.58	0.024
	Lending interest rates	15.737	15.269	5.243	2.351	0.023
	Loans demand	1.465	1.716	3.991	2.349	0.021
	Deposit Volumes	3.449	2.264	1.452	2.223	0.019

The regression equation becomes:

Loan uptake = -7.557-15.737X_1

From the above regression model, in the absence of independent variables (Lending interest rates, loans demand and deposit volumes) loan uptake would be -7.557 which according to the descriptive data is slightly below its minimum value. A unit increase in lending rates will reduce loans uptake by 15.737 units. A t-test value of 1.031 was

established at p=0.024 portraying that this relationship was significant. A unit increase in demand for loans would increase loans uptake by 1.465 units. A t-test value of 0.854 was established at p=0.023. Finally, a unit increase in deposit volumes would increase loans uptake by 3.449. A t-test value of 1.523 was established at p=0.016 showing that this relationship was significant.

4.5 Research Findings

The results from the tests revealed that a significant decline in the loan uptake after the introduction of interest rate capping by the Central Bank. According to the data analysis the loans growth was 17.65%, 4.61%, -1.72% in Quarter 1, 2, 3 of 2016 and -0.83%, 3.96%, 1.75% same periods 2017 hence it was evident that interest rate capping had significant impact on the loan uptake.

According to a report by Central Bank of Kenya (2017), the loan growth in commercial banks in Kenya has also been affected, with listed banks recording a loan growth of 7.1% as at Q1'2017, compared to 15.7% in Q1'2016 and a 5-year average growth of 14.6%. The most affected banks in terms of loan growth are those banks with a focus on SME's and the retail market, the segment that the law was meant to protect, indicating the rate cap might not have achieved its intended objective. A report by Cytonn Investments (2017) where they firmly disagreed with the rate capping proposal as a measure to make credit more accessible, they prescribed a market with free and open information on loan pricing and alternative products as effective methods to increase competition and drive down loan costs.

Historically, the average lending interest rate on loans and advances for commercial banks in 2015 was 17.8%, 17.7% in 2016 respectively, while interest rate capping was introduced in September 2016.When this is compared with loan growth it is

noticeable that loan growth was highest during the periods of no interest caps, dipping to 7.04% in 2016 when interest rate capping was introduced.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter contains a discussion of the findings, conclusions and recommendations for further study on the problem. The chapter illustrates summary of findings, followed by thoughts on the key findings and finally draws discussions from the results.

5.2 Summary of Findings

The objective of the study was to find out the effects of the recent interest rate capping on the uptake of loans among the commercial banks. The study was conducted in 42 commercial banks using the data of one year prior to interest rate capping and same period post interest rate capping.

The discussions behind implementations of interest capping expected the capping to have a sway on the broader economy through its impact on consumer and business activities. The key query to be addressed by this kind of regulation was whether it bites and therefore impacts borrower behavior in the economy.

Interest rate capping has rationalized the interest rates spread but has brought about the resultants challenges which include locking out of SMEs and other small business enterprises which are perceived to high risk borrowers in a bid to reduce level NPL provisions. Some commercial banks have also gone ahead to completely curtail their unsecured lending. This also resonates with a study by Mohane (2003) on the effects of interest rate capping on the on the micro market a case study of micro lender in South Africa. The findings revealed that interest rate capping could act as constraint

to the provision of loans to low income earners and operators of small business enterprises.

Interest rate capping has also led to the continued decline of loans and advances, slowing to -0.83% in the quarter one of 2017, which is geared up to adversely affect economic growth for 2017 prevalent retrenchments in the banking sector as banks alter to the changing operating environment brought about by the present regulatory framework. In the other key sectors of the economy which is inevitable to take a toll as the unemployment levels in the country reported at 39.1% in 2016 and struggling small and mid-tier banks now have to mobilize funds at higher rates and can only lend out within the restricted margins. It is evident from the above that interest rate capping effects, while yet to be fully felt is more devastating than productive with the rip-offs far out-weighing the gains, and the responsibility is on policymakers to arrest the situation in good time.

Further, it is important to note that introduction of interest cap rate has discouraged supply of funds to the financial system, thus encouraging informal mechanisms. Also, commercial banks have been found to concentrate their credit to large borrowers, with the attendant risks of non-performing loans and possible systemic risks.

5.3 Conclusion

From the above findings discussed, interest rates allowed by commercial banks are a major influence that affects the loan uptake. There is a general undesirable relationship between the lending rates and the loan uptake. When the lending rates were capped there was a general decline of the lending. Also, start of interest rate capping led to decrease in the loan uptake.

These changes in regulations have an impact in the future cash flows of banks. The major discussion alongside the interest rate capping was that it alters the economy and avert financial institutions from offering financing to those at the micro and small businesses with limited sources of finances.

In addition, the study concludes that an interest capping aggravates the difficulties of adverse selection as it limits lenders' ability to price discriminate which means that some borrowers that might end up receiving highly priced loans and some ventures fail to receive funding due to their risk profile.

5.4 Recommendations

Given the current state of low lending in the economy under interest rate capping, below are the recommendations that need to be taken to spur loan growth once again in the economy:

i. Repeal the Banking (Amendment) Act 2015, considering the current interest rate regulation has proved to be a hindrance to loan growth, evidenced by the continued decline of loan growth, which was at -0.83% as at March 2017, compared to 4.61% prior to the interest rate capping.

ii. The government through Central Bank and KBA to advocate for more market based regulations which would not have detrimental effects on the small businesses and startups and hence promoting enabling environments for entrepreneurial activities.

5.5 Limitations of the Study

The fact that the research only used secondary data limited scope of the study. Hence, it did not consider any primary data or other qualitative data that could be significant influence on the study variables. The study also did not take into account the effects of political climate in Kenya or analyze internal and external factors that had affected the loan uptake for the period under study.

The period of collection of data was limited and hence the shortcoming on this study. Data needed in the research was collected within relatively short period depth of the study notwithstanding, it was clearly not satisfactory. This restricted the scope of study.

5.6 Suggestion of Further research

This study has focused on secondary data. Future research could be undertaken to find out the effect of interest rate capping on loan uptake where primary data collection tools are adopted. This could be done by interviewing the business community with respect to effect of the interest rate capping on the access of loans from commercial banks. Hence, future research studies should consider including qualitative data so as to evaluate the qualitative aspects of the variables under study.

Further study is recommended where multiple regression can also be used with more than three factors affecting the level of loan uptake. The research can be broadened by considering secondary data over a longer years of study which may result in different findings.

REFERENCE

Aryeetel, E.T, Baah, N.T, Duggleby, H.H & Steel, W.F. (1994), *Supply and Demand for Finance of Small Enterprises in Ghana*. World Bank Discussion Papers No.251, African Technical Department Series, World Bank. Washington D.C

Blitz, R.C. & Long, M. F. (1965). "*Economics of Usury Regulation*," *The Journal of Political Economy.* 608–19.

Boyd, J. H., B. D. Smith & Levine. R, (2001). "The Impact of Inflation on Financial Sector Performance" *Journal of Monetary Economics* 47(2), 221-248.

Central Bank of Kenya Banks Supervisory Report, 2016

Cook, T. & Hahn, T. (1990). Interest Rate Expectations and the Slope of the Money Market Yield Curve. *Federal Reserve Bank of Richmond Economic Review* 76(5): 3– 26.

Cooper, D. R. & Schindler, P. S. (2008) *Business Research Method* (2nd Ed.). NY: McGraw Hill Higher Education.

Crowley, J. (2007). *Interest Rate Spreads in English-Speaking African Countries* (*IMF Working Paper No. wp/07/101).* Washington D.C. World Bank.

Cytonn, FY2016 Banking Sector Report, 2017

Eighteenth Monetary Policy Committee Report, April 2017

Ekweny, O. A. (2014*). Interest Rates Volatility on Nonperforming Loans Portfolio of Listed Commercial Banks in Kenya.* Unpublished MBA project University of Nairobi.

Fredrick, M. K. & Mr. Husborn, O.K. (2012). An Investigation into Selected Factors Hindering Access to Mortgage Finance in Kenya**.** *Journal of Business Management,* Egerton University.

Gale, W.G. (1991). Economic Effects of Federal Credit Programs. *American Economic Review*, 81, 133-152

Happy, M., Gerhard, C. & William, G. (2002). *The Effects of the Interest Rate Ceilings on the Micro Lending Market in South Africa.* University of Pretoria, South Africa.

Kenya Bankers Association, (KBA), (2017*). Interest Rate Capping Debate: Market failure or Necessary Intervention?* Nairobi, Kenya. Retrieved from: *https://www.icpak.com/wp-content/uploads/2017/02/Interest-Rates-Capping-CPA-Habil.pdf*

Keynes, J. M. (2017). *The General Theory of Employment, Interest and Money*. Wordsworth Editions Ltd.

Kilele, A. K., Nduruhu D, & Kimani, M. (2015). Determinants of Group Loans Uptake at Youth Enterprise Development Fund. *International Journal of Economics, Commerce & Management,* Jomo Kenyatta University of Agriculture and Technology.

Kombo, D. K. & Tromp, D. L. (2009). *Proposal and Thesis Writing: An Introduction*. Paulines Publications Africa, Don Bosco Printing Press, Nairobi Kenya.

Lillian, K. O., Munir. M. & Dr. Douglas, M. (2015). Effect of Credit Risk Management on Loan Portfolio Quality of Tier One Commercial Banks in Kenya**.** *International Journal of Business Management*, Jomo Kenyatta University of Agriculture and Technology.

Maimbo, S. M., Henriquez, G. C. & World Bank Group, (2014). *Interest Rate Caps around the World: Still popular, but a blunt Instrument*. Washington, D.C.: World Bank

Maranga, W.O. & Nyakundi, E.N. (2017). Effect of Interest Rates on Business Investment Performance of Selected Commercial Banks in Kisii Town. *Journal of Accounting & Marketing.* Kisii County, Kenya.

Mbua, S.N. (2017). E*ffect of Interest Rates Capping by the Central Bank of Kenya on the Banks Listed on the Nairobi Securities Exchange*. Unpublished MBA Project United States International University.

Mburu, L. G. & Kakumu, O. (2015). *Determinants of Mortgage Uptake in Kenya Using the Capital Market Approach.* Jomo Kenyatta University of Agriculture and Technology.

Micah, C. & Gibbs, J. (2013*). Lessons learned from Uganda and Best Practices for future, 1-14.*

Miller, T.W. & Black, H. A. (2016) *Examining Arguments Made by Interest Rate Cap Advocates.* Mississippi State University.

Mohane, H. T. (2003). *The Effects of Interest Rate Ceiling on Microfinance Market: A case study of Micro Lender*. University of Pretoria.

Mugenda, O. M. & Mugenda, A.G. (2013). *Research methods: Quantitative and Qualitative Approaches. African Centre for Technology Studies (ACTS).* Nairobi- Kenya.

Nachmias, V. F. & Nachmias, D. (2007). *Research Methods in the Social Sciences New York*: St. Martin's Press.

Nancy, W. M. (2016). The *Effect of Interest Rates on Microfinance Institutions' Products in Kenya; a Case Study of Kenya Women Finance Trust.* Unpublished MBA Project United States International University.

Ndun'gu, S. & Ngugi, R. (2000). *Banking Sector Interest Rate Spread in Kenya. Macroeconomic and Economic Modeling Division. Kenya Institute for Public Policy Research and Analysis.KIPPRA Discussion Paper, 5*

Ngacha, S. W. (2013). *The Effect of Interest Rate Volatility on Mortgage Default Rate in Kenya*. Unpublished MBA Project University of Nairobi.

Ngele, N.M. (2013). *The Effect of Interest Rate on Borrowers' Uptake of Credit Facilities in Commercial Banks in Kenya.* Unpublished MBA Project University of Nairobi.

Olokoyo, (2011), Determinants of Commercial Banks Lending Behavior in Nigeria.

Phelps, E. S. (1994). *Structural Slumps: The Modern Equilibrium Theory of Unemployment, Interest, and Assets*. Cambridge, Mass: Harvard University Press.

Reifner. U., Clerc-Renard & Knobloch RA.M (2009). *Study on Interest Rate Restriction in the EU.*

Samuel, M. M. & Claudia A. H. (2014). *Interest Rate Caps around the World Still Popular, but a Blunt Instrument.* Policy Research working paper; no. WPS 7070. Washington, DC: World Bank Group

Snippe, J. (1983). *Loanable funds theory versus liquidity preference theory*. Groningen: Instituut voor Economisch Onderzoek, Faculteit der Economische Wetenschappen, Rijksuniversiteit Groningen.

Stalker, J. (2009). *Complex analysis: Fundamentals of the Classical theory of functions*. Boston: Springer.

Villegas, D. J. (1989). "The Impact of Usury Ceilings on Consumer Credit." *Southern Economic Journal* 56 (1989), 126–41.

Zachary, N. L. (2015). *The Effect of Interest Rates on Demand for Credit by Small Medium Enterprises in Nairobi County.* Unpublished MBA Project University of Nairobi

APPENDICES

Appendix I: Commercial Banks in Kenya

1. ABC Bank
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya
6. Chase Bank Kenya (Under receivership)
7. Citibank
8. Commercial Bank of Africa
9. Commercial Bank of Kenya
10. Cooperative Bank of Kenya
11. Credit Bank
12. Development Bank of Kenya
13. Diamond Trust Bank
14. Dubai Islamic Bank
15. Ecobank Kenya
16. Equity Bank
17. Family Bank
18. First Community Bank
19. Giro Commercial Bank
20. Guaranty Trust Bank Kenya
21. Guardian Bank
22. Gulf African Bank
23. Habib Bank AG Zurich
24. Housing Finance Company of Kenya

25. I&M Bank

26. Imperial Bank Kenya(Under receivership)

27. Jamii Bora Bank

28. Commercial Bank Kenya

29. Middle East Bank Kenya

30. National Bank of Kenya

31. NIC Bank

32. Oriental Commercial Bank

33. Paramount Universal Bank

34. Prime Bank(Kenya)

35. SBM Bank Kenya Ltd

36. Sidian Bank

37. Spire Bank

38. Stanbic Bank Kenya

39. Standard Chattered

40. Transnational Bank Kenya

41. United Bank for Africa

42. Victoria Commercial Bank

Appendix II: Data Collection Sheet

Commercial Banks	**Loan values Billions**	**2015**	**2016**	**2017**
	Q1	2040	2400	2380
	Q2	2170	2270	2360
	Q3	2320	2280	2320
	Q4	2165	2330	
	Deposit Movements Billions	**2015**	**2016**	**2017**
	Q1	2410	2600	2740
	Q2	2570	2620	2850
	Q3	2570	2690	2097.68
	Q4	2490	2650	
	No of CRB Reports '000	**2015**	**2016**	**2017**
	Q1	1923	1534	1840.8
	Q2	1702	1406	1616.9
	Q3	1316	1200	1320
	Q4	1025	798	
	Average Lending Rate %	**2015**	**2016**	**2017**
	Q1	18.3	17.8	13.7
	Q2	16.4	18.05	13.6
	Q3	17.2	16.8	13.8
	Q4	18.8	18.2	