# EFFECT OF INTEREST RATE CAPPING ON PERFORMANCE OF COMMERCIAL BANKS IN KISUMU COUNTY, KENYA

 $\mathbf{BY}$ 

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# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

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# **DECLARATION**

I declare that this Research Project is my original work and has not been submitted for		
examination in any other university.		
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Supervisor  This Research Project has been submitted for examination with my approval as the University supervisor		
Dr. R. K. Mule Signature:		

#### **ACKNOWLEDGEMENT**

This research project would have been unachievable were it not for the relentless effort and assistance of my supervisor Dr. Robert Mule. He has guided me with a lot of dedication and friendliness. My own efforts would not have yielded much without his guidance. I cannot forget all my classmates and family members for their continued encouragement and support.

#### **DEDICATION**

This research work is dedicated to my family and friends: Special dedication goes to my mother Mary kadali who took interest and sacrificed to me see through school. To my family and siblings for their love and support both morally and materially. Their encouragement and support has assisted me greatly in completion of this project.

#### **ABSTRACT**

The study is set to gain an understanding of the effect of interest rate capping on the performance of banks in Kenya, a case of Kisumu County. There is an existent relationship between interest rates and the performance of banks, which has been an area of interest for academia for a number of decades world over. With the focus on how performance of commercial banks is affected by interest rate capping, the specific objectives of the study will include; assess the effect of interest rate capping on customers borrowing in commercial banks in Kisumu County, Kenya; examine the effect of interest capping on inflation rates in Kisumu County, Kenya; and determine the effect of interest capping on discount rates in Kisumu County, Kenya. The study will be based on the theories of interest rates by Keynes (1936), Caplan (2000) and Friedman, (1991) who argue that savings are hinged on interest rates and the demand for capital by customers arising from investment decisions based on saving. The study adopted a cross-sectional study design in which 34 commercial banks operating in Kisumu County were targeted. Both primary and secondary data were collected. The primary data was collected using self-administered questionnaires which were distributed to staff and top managers of the selected commercial banks. The data collected was analysed descriptively to give a summary of the data characteristics while inferential statistics was used to establish associations and relationships between variables. Regression analysis was used to establish relationships between borrowing, inflation rates, discount rates, and the overall performance of commercial banks in Kisumu County Kenya. Findings emanating from this study are useful in understanding the effect of interest rate capping on performance of financial institutions particulary the local commercial banks and can aid the Kenyan policy makers to carefully plan and forecast the impact of such moves with a view of ensuring that while local commercial banks thrive in their mandate, the customers are also safeguarded and satisfied by the services received from the banks. The study set the interest rate cap coeffecient of multiple reggressions at r square= 0.585 with an influence scale equated at p<0.001, which gives the implication that there is a positive correlation between commercial banks financial, with the interest rate cap affecting their performance at a percentage of 58.5%. A response mean score of 2.810, 3.87833, 3.92333 in terms of consumer borrowing, inflation and discount rates respectively, indicating that the respondents had a moderate extent to agree with the questions on each of the three variables requirement. The regression model also gives the connotation that holding the dependent variables constant there would be an achievement of 1.932 in form of commercial banks in Kisumu county financial performances. A unit increase in each of the variables would result in a development of the commercial banks' performance by factors of -0.071, -0.257 and 0.611 in terms of consumer borrowing, inflation and discount rates respectively. The study therefore recommended that in order for the commercial banks within Kisumu County to ensure a stable and improved performance, there is need for stability or an improvement in the interest rate levels.

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#### **ACRONYM AND ABRREVIATIONS**

ANOVA Analysis of Variance

CBK Central Bank of Kenya

ECCU Eastern Caribbean Currency Union

GDP Gross Domestic Product IRS Interest Rate Spreads

MFIs Micro Finance Institutions
NARC National Rainbow Coalition

NIM Net Interest Margin

ROA Return on Asset

ROE Return on Equity

SPSS Statistical Package for Social Sciences

#### **OPERATIONAL DEFINITION OF TERMS**

**Credit:** Credit serves as a type of money; it is an exchange of goods, services or money based on faith in borrower's promise to repay with some form in security held by the lender.

**Interest rate capping**: refers to the guidelines and procedures put in place to ensure smooth credit-granting processes among commercial banks. If proper interest rate capping is not implemented, the bank is exposed to many risks especially when the borrower is not able or willing to honor their financial obligations. Interest rate capping play a fundamental role in maintaining a sound financial balance between lending and depositing and thus mitigating the risk of losing money through lending which then impact on the performance of commercial banks.

**Financial performance:** Financial performance refers to the degree to which financial objectives are being or have been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

**Commercial banks:** Commercial banks are profit seeking business firms that deal in money and credit. A commercial bank is therefore a financial institution which deals with money in the sense that it accepts deposit of money from the public to keep in safe custody. Banks also deal in credit by advancing out funds received as deposits to needy people who are then obligated to pay at a later date.

**Discount rates:** is the interest rate at which the central bank lends to commercial banks to meet their liquidity needs. The discount window allows banks to borrow money for very short term operating needs. These loans are typically extended for 24 hours or less.

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#### **CHAPTER ONE**

#### **INTRODUCTION**

This chapter focuses on the background of the study, the statement of the problem, the objectives of the study, research questions, and significance of the study. The scope and limitations of the study, theoretical framework and the conceptual framework are also given.

#### 1.1 Background of the Study

The financial sector plays an important role in the economic development and prosperity of a nation. In order to lend, commercial banks accept deposits from the public against which they provide loans and other forms of advances since they bear the cost for carrying these deposits. Commercial banks undertake lending activities to their clients in order to generate revenue. The major sources of revenue for commercial banks comprise of margins, interests, fees and commissions (Fiordelisi *et al.*, 2010). However, for a long time, commercial banks have often determined their own interest rates which are then used in their day to day dealings with clients.

Banks in Kenya regulate interest rates spread below the sealing put by the central bank (CBK, 2012). At national level, interest rates have been shown to affect financial performance both directly and indirectly. When interest rates are high borrowers are discouraged to borrow. For instance, Were and Wambua (2013) noted that a drop in interest rate earned by banks had direct impact on the banks' profitability. On the contrary, low interest rate charged by banks has been shown to have an opposite impact on borrowers as many people are likely to borrow and if the spread remains the same, banks will benefit from overall increased interest earning. Ngugi (2004) noted that through multiplier effects, savings are reduced when interest rates charged are perceived to be high and this is likely to have some negative impacts on the banks' performance. The opposite is true during period of low interest rate. Although the above studies were done at national level, this information is lacking at local or branch level such as in Kisumu County and forms the basis for this study.

Chirwa (2002) in a study conducted in Malawi, established that when interest rates of commercial banks are not controlled, the larger banks that have major control may

exploit customers by increasing interest rates on borrowing while maintaining low interest rate earned by customers. Quadan (2004) studying interest rates spread of big commercial banks argued that if the banking sector's interest rate spread is large it discourages potential savers due to low returns on deposits and thus limits financing for potential borrowers.

Interest rate variables include minimum rediscount rate, lending rate, deposit rates, treasury bills rates, as well as interbank rates. If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. According to Ngumo (2012), exceedingly high interest rates by commercial banks in the Kenyan banking sector have strongly discouraged longterm investment and constrained Kenya's ability to grow. A study by Naceur and Goaied (2008) conducted in the banking sector in Tunisia established that discount rate had a positive and significant effect on the performance of commercial banks. This is consistent with studies conducted by Brock (2010) on the relationship between commercial bank profit rates and banking concentration in Canada, Western Europe and Japan and indicated that when central banks raise their discount rates, commercial banks may raise their lending rates sooner by more percentage points than their deposit rates which means when discount rates are high, commercial banks' profit rates are also high because the banks interpret the high discount rates as a signal to raise their lending rates without as great an increase in their borrowing rates. While, the above studies established the importance of credits on interest rates spread in developed countries, few studies have looked at the relationship between discount rates and returns on equity in Kenya.

According to Obiero (2012), when the government increases the discount rate, it does not have an immediate impact on the stock market. Instead, the increased discount rate shows a single direct effect in that it becomes even more expensive for banks to borrow money from the CBK. However, increasing the discount rate can also cause a ripple effect, and factors that influence both individuals and businesses are affected. Ndungu, (2003) reported that with an increased discount rate, banks increase the rates that they charge their customers to borrow money and this lead to an increase in performance. This affects individuals negatively through increase in credit card and

mortgage interest rates; especially if they carry a variable interest rate. While, the above studies focused on the effects of interest rate spread on borrowing in big commercial banks, such information is lacking for medium and smaller banks including their branches, especially those located at the local settings which forms the basis of this study.

Ravell (1979) in addressing the issue of inflation showed that the impact on performance was dependent on the rate of growth in operating expenses. He observed that if operating expenses rise faster than inflation, then there is a negative impact on performance. If, however, the growth rate is lower, then there is a positive impact. The researcher further noted that variations in bank profitability can be strongly explained by the level of inflation. However, if inflation is fully anticipated, then it can be passed on to prices ex-ante, and this improves the performance. If, however, it is not anticipated, the costs will rise faster than prices and the impact on performance will be negative. Inflation reduces the demand for credit because it increases uncertainty about the future. Mishkin (1991) indicated that the productivity of banks is likely to be affected by factors in economic environment such as slow gross domestic product (GDP) growth, volatility of interest rate, unexpected domestic currency depreciation, price level volatility, uncertainty, and high share of nonperforming credit to the private sector and adverse terms of trade movement. Aburime (2008) on the other hand found that real interest rate, inflation, monetary policy and foreign exchange regime are all positively associated with return on assets of the banks in Nigeria. Bosson and Jog-kun (2002), however found out that profitability of Ghanaian banks was skewed towards large banks. In Kenya there have been extensive studies on aspects of interest rates and profitability although most of the studies looked at how inflation affects operating expenses and the rate of GDP growth. However, the banks' performance in relation to interest rate has not been well evaluated, especially for small commercial banks, especially those located at local settings such as those in Kisumu County.

#### 1.2. The Kenyan Banking Industry

The Kenya banking sector can be characterized as growing and liberalized industry with the support of the technology. The presence of the technology in the Kenyan

banking sector has created difference as well as accommodated creativity and innovativeness in the industry. Historically, the sector was dominated by major international banks such as Barclays and Standard Chartered banks that had located their businesses in major towns with their main customers being the government of Kenya and corporate institutions. This made it difficult for other stakeholders among them small scale business people and employed citizens to easily access banking services (Ngugi, 2013).

The introduction of new interest policies by the NARC government in the year 2003 changed the whole strategy of doing business in the banking sector in Kenya. The government reduced the interests given to the banks on the amount given to it as loan. This plunged the main banks into crises given that they were expected to come up with new strategies on how to reach out to other interested stakeholders. At this time, small banks or micro finance institutions expanded due to the good business environment that was prevailing. The smaller banks and micro finance institutions extended their interest all over the country and outside the country making it difficult for the main banks to continue operating with strict banking structures (Ndung'u, 2000). Equity and family banks are among the institutions that were able to take advantage of the new environment by targeting small scale customers. These banks operated with customer friendly terms hence extending their market share and their profitability. As a result, currently, Equity bank and Family bank hold substantial market share in the Kenyan banking sector (Ng'etich, 2011).

Chenn (2011) argued that due to globalization, Kenya's economy has been experiencing inflation and other internal pressure. This has resulted in constant changes in interest rates hence influencing the banking industry in the economy. In normal circumstances, interest rate change shifts the spread given by the financial institution to their clients. This means that the banks have been revising the rates given to their customers hence making the lending process unstable. Out of the competition, financial institutions have been introducing different spreads based on their policy strategy to meet their goals and objectives with total disregard of what the customer's feel.

It is important to note that Kenyan government through the ministry of finance and central bank have constantly been making policies on how to bridge the gap between the different stakeholders' interests in the banking industry. As profit motivated institutions, banks would prefer to offer loans on small spreads and at the same time get loans from central banks cheaply. This objective has remained an obstacle to the industry where the government and other socially motivated stakeholders wish to have bank facilities that offer cheap loans while the institution wish the same but the business interest concept dictate otherwise. It is out of this conflicting interest that competition in the sector has increased with each stakeholder introducing new brands with new spread and at the same time offer general services.

In Kenya, the Banking Sector is composed of the Central Bank of Kenya (CBK), as the regulating authority and the commercial banks, on-bank financial institutions and forex bureaus as the regulated (CBK, 2012). As at 31<sup>st</sup> December 2012 the banking sector comprised 44 institutions, 43 of which were commercial banks and 1 mortgage finance companies. A total of 120 foreign exchange bureaus were also operating in the country by then. Commercial banks and mortgage finance companies are licensed and regulated under the Banking Act, Cap 488 of Kenya and prudential regulation issued there under. Foreign Exchange Bureaus are licensed and regulated under the Central Bank of Kenya (CBK) Act, Cap 491 and foreign exchange bureaus guidelines issued there under.

In Kenya, commercial banks dominate the financial sector, with some studies showing that Kenya is over banked with a relatively high ratio of banks to total population. In Kenya, there are 42 commercial banks serving 44 million people, compared to Nigeria's 22 commercial banks for 180 million people and South Africa's 19 commercial banks for 55 million people. According to Central Bank of Kenya (2011) Supervision Report as of December 2011 out of the 43 commercial banks 30 of them are domestically owned while 13 are foreign owned (CBK, 2011). Currently, large commercial banks in Kenya by asset category including: Kenya commercial bank limited and Equity bank limited have extended their operations across the border to Southern Sudan, Uganda, Tanzania, Rwanda and Burundi.. Out of the 43 commercial banks that were operational in 2012, 31 were locally owned while

13 were foreign owned. The locally owned financial institutions comprised 3 banks with significant government shareholding and 28 privately owned commercial banks. The foreign owned financial institutions comprised of locally incorporated foreign banks and 4 branches of foreign incorporated banks (CBK, 2012).

In early 1990s, commercial banks in Kenya took advantage of astronomical rise in treasury bills and bond rates by allocating a large portion of their portfolio to this riskless asset class for handsome capital gains and excessive profits (Ojwang, 2015). Nevertheless, all commercial banks are regulated by the Central Bank of Kenya and are required to adhere to certain prudential regulations such as minimum liquidity ratios and cash reserve ratios as set by the Central Bank of Kenya.

In Kenya, the banking sector plays a dominant role in the financial sector, particularly with respect to mobilization of savings and provision of credit. African countries, particularly at the bank-level, like Kenya are still grappling with the challenge of higher interest rate spreads (Ngugi and Kakubo, 1998). As per Bank Supervision Annual Report (2012) the banking sector consisted of the Central Bank of Kenya (CBK), as the regulatory authority, 44 banking institutions (43 commercial banks and 1 mortgage finance company). Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 are foreign owned. Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the CBK. The Kenyan government adopted the CBK amendment act in 2001 and allows CBK to regulate interest rates.

The introduction of an interest rate capping/ceiling for commercial banks and other financial institutions in Kenya recently rekindled an old time debate regarding the implementation and appropriateness of such interventions which according to the policy makers seeks to limit the charges by financial institutions that were considered unreasonably high. It is therefore important to carry out an analysis of the theories that are behind interest rates capping as well as the advantages and disadvantages of implementing a capped interest rate within a country's banking industry. Additionally it is essential to establish: what comprises the interest rates, where interest rate caps

are currently used in Kenya, aspects of the economy in which interest rates have been used traditionally, impacts of interest rate capping (majorly with a focus on the expanding access to such finances and financial institutions) and what can be used as alternatives to interest rate caps in order to reduce spreads within the nation's financial markets.

The relationship between interest rates and performance of banks has been an area of interest in academia for several decades world over. In Tunisia, partial liberalization was shown to have both negative and positive impacts on the interest margin. Whereas complete liberalization strengthened the ability of Tunisian banks, increase in the interest rate depressed the borrowers and depositors, impacting on investment and saving. In Kenya the interest charged to borrowers rose to above thirty percent in 2012, while interest earned by the savers remained moderately low. This resulted in the debate by members of parliament to control banks' interest rates due to their skewed way of dealing with clients. The argument was that banks only increase interest rate charged to customers, while the banks argued that capping interest rates would drive them to closure. Although the Kenyan government succeeded in imposing interest rate capping, there is dearth of information on how this decision has impacted on financial performance of commercial banks in the country. Besides, while a few studies have attempted to to provide some valuable insights on interest rates and financial performance of banks in Kenya, they have done so only partially often focusing on the banks' headquarters, ignoring their branches located in different counties throughout the country. Given the volatile microeconomic environment in different parts of Kenya, there is need for an up to date research on the complex relationship between interest rates capping and financial performance of commercial banks at the county level.

#### 1.2. Interest Rates Charged by Commercial Banks

Interest is the cost of hiring money or credit (D' Alberto, 2015). Keynes (1973) defined it as the reward for not hoarding money. Over the years, interest rates have remained a subject for critical assessment with diverse implications for savings mobilization and investment promotion. Banks pay interest on deposits on one hand and on the other hand they charge interest on loans and advances lent to borrowers.

The difference between these two interest rates defines the interest spread which constitutes a significant proportion of ROE. Interest rate variables include minimum rediscount rate, lending rate, deposit rates, treasury bills rates, as well as interbank rates. Lending rates represent the price of loans extended to borrowers by commercial banks. Banks should consider the problems of adverse selection and moral hazard since it is very difficult to forecast the borrower type at the start of the banking relationship (Hoff & Stiglitz, 1998).

If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. Excessively high interest rates by commercial banks in Kenya have strongly discouraged long-term investment and constrained Kenya's ability to grow (Ngumo, 2012). Profitability of banks is described as income by interest or non-interest and after tax profits which are computed as an amount of income (both interest & non-interest) after the subtraction of provisions and operating costs (Albertazzi & Gambacorta, 2009). Abreu and Mendes (2001) established that the net interest margin reacts positively to operating cost implying that changing market conditions would have an impact on the market interest rates which would have a direct impact on profitability.

Financial performance is an indicator of how profitable a company is relative to its total assets. It is measured by return on asset. Return on Equity (ROE) gives an idea as to how efficient management is at using its assets to generate earnings. The ROE therefore refers to a company's net income divided by its average total assets. Return on Equity is displayed as a percentage and sometimes referred to as "return on investment". Return on equity formula looks at the ability of a company to utilize its assets to gain a net profit Kiarie (2011). While, net income in the numerator of the ROE formula can be found on an income statement, the average total asset on the denominator of the ROE formula is found on a company's balance sheet. The average of total assets should be used based on the period being evaluated.

#### 1.3. Statement of the Problem

Interest rates in the Kenyan banking sector keeps varying and are influenced by various factors among them the availability of customers and its location. Interest rates determine the profitability of a commercial bank among other factors. High interest rates have remained a macroeconomic problem in the banking industry that has proved difficult to deal with. Currently, banks in Kenya regulate interest rates spread below the sealing put by the central bank. At national level, interest rates have been shown to affect financial performance of larger banks both directly and indirectly. However, this information is lacking at local or branch level. Furthermore, incentives such as discounts on loans may increase lending rates and this may impact on interest rates and borrowing of big commercial banks. While, majority of studies focused on the effects of interest rate spread on borrowing in big commercial banks at national level, such information is lacking for medium and smaller banks and also their branches, especially those located at the local settings. Other variables such as inflation have been shown to impact on performance, though this is dependent on the rate of growth in operating expenses. Most studies also looked at how inflation affects operating expenses and slow rate of GDP growth. However, the relationship between performance of banks in Kenya and interest rate has not been well evaluated, especially for small commercial banks in Kenya.

#### 1.4. Objectives of the Study

#### 1.4.1. Main objectives

The main objective of this study was to determine the effect of interest rate capping on the financial performance of commercial banks in Kisumu County, Kenya.

#### 1.4.2. Specific Objectives

This study was be guided by the following specific objectives:

- i. To assess the effect of interest rate capping on customers borrowing in commercial banks in Kisumu County, Kenya.
- ii. To examine the effect of interest rate capping on inflation rates of commercial banks in Kisumu County, Kenya.
- iii. To establish the effect of interest rate capping on discount rates of commercial banks in Kisumu County, Kenya.

#### 1.5. Study Hypotheses

- i. Interest rates capping have no effect on customer borrowing in commercial banks in Kisumu County, Kenya
- ii. Interest rates capping have no effect on inflation rates of commercial banks in Kisumu County, Kenya?
- iii. Interest rates capping have no effect on discount rates of commercial banks in Kisumu County, Kenya?

#### 1.6. Justification of the Study

The main purpose of this study was to establish the relationship between the interest rate capping and financial performance of commercial banks in Kisumu County, Kenya. The study findings will help understand the effect of interest rate spread on financial performance of the commercial banks in Kisumu County. Findings of the study was provide a real basis for establishment of favorable credit management practices, and serve as a reference material with documented best practices in minimizing the incidences of arbitrary capping of interest rates that may result in nonperforming loans. The study was also provide a basis for further research into effect of interest rate to the savers and their attitude towards banks and other financial institutions. It is also stimulated further studies on optimal interest rate spread among financial institutions in Kenya. The study findings are expected to aid policy makers in the Kenyan financial sector to carefully plan and forecast the impact of the policies with a view to ensuring that banks thrive to serve its' purpose and at the same time ensure that the customers are not exploited. The study findings therefore helped those responsible in formulating sound policies with full understanding of the impact of the interest rate spread. It is assumed that if the policies made are effective, there was healthier economic growth and this was reflected in an active economy. Policy makers were able to formulate policies that would have floors and caps that are not likely to affect performance of the banks and at the same time motivate savings and borrowing by customers and lending by banks.

#### 1.7. Scope of the Study

This study was to focus on the nature of interest rate capping in commercial banks in Kisumu County and the relationship between interest rate capping and commercial banks' performance. All commercial banks in Kenya are regulated by the Central Bank of Kenya, which is the one that determines and controls the operational and capital requirements for commercial banks. In Kenya there are a total of 42 commercial banks, 1 mortgage finance Company, 12 microfinance banks, 8 representative offices of foreign banks, 6 foreign exchange bureaus, 14 money remittance providers and 3 credit reference bureaus (Cytonn, 2015). However, only 34 commercial banks operating within Kisumu County (Kisumunewinfo.blogspot.co.ke 2016) will be included in this study. The study will specifically focus on the elements of interest rate capping on commercial banks performace in Kisumu County. The study will use data covering a period of 2 years (2015 to 2017).

#### 1.8. Conceptual Framework

This study will be guided by the conceptual framework shown in Figure 1, below.

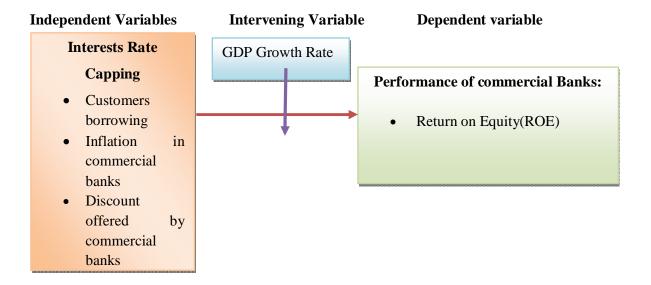


Figure 1: Conceptual framework depicting the relationship between variables

**Source:** International Journal of Humanities and Social Science Vol. 3 No. 20; December 2013

This study was concerned with existing laws and legal rules governing interest rate capping and their application in limiting charges imposed by commercial banks which act as lenders, directly or indirectly, for the use of capital by borrowers. The level of interest rates charged on consumer credit depends on the market level of interest rates,

the bank's margin and a component which compensates the lender for the risk of a borrower's default, which in turn depends on the collateral, the credit history and the income/wealth situation of the borrower. Due to the fixed costs to each loan, small amounts of credit may be relatively expensive.

The dependent variables in this study were represented by the financial performance of commercial banks. The frequency of borrowing by customers, inflation in commercial banks and discount given to customers will all be assessed in order to analyze how they are all influenced by the interest rate capping and how these interactions eventually translates into financial performance by the commercial banks in Kisumu County.

Intervening was the the GDP which measures the growth in economic activity can be part of the performance of banks. The relationship between the independent variables and dependent variable with intervening variables is presented schematically in the conceptual framework (Figure 1).

#### **CHAPTER TWO**

#### LITERATURE REVIEW

This chapter deals with the review of the available literature related to the study. The review of the relevant literature considered various sources of information like text books, bank reports, journals, magazines and internet. Thus, this chapter traces literature on the way interest rates capping affect financial performance of Commercial Banks.

#### 2.1. Theoretical Framework

There are many theories explaining effect of interest rate on performance of financial institutions but for purposes of this study, only two theories will be highlighted.

#### 2.1.1. The Classical Theory of Interest

Interest, in real terms, is the reward for the productive use of capital, which is equal to the marginal productivity of physical capital. In a money economy, however, as physical capital is purchased with monetary funds, the rate of interest is taken to be the annual rate of return over money capital invested in physical capital assets.

According to Keynes Theory (1936), the true classical theory of interest rate is the savings investment theory. Basically, the theory holds the proposition based on the general equilibrium theory that the rate of interest is determined by the intersection of the demand for and supply of capital. Caplan (2000) argued that an equilibrium rate of interest is determined at a point at which the demand for capital equals its supply. Demand for capital stems from investment decisions of the entrepreneur class. Investment demand schedule, thus, reflects the demand for capital, while the supply of capital results from savings in the community. Savings schedule, thus, represents the supply of capital. It follows that savings and investment are the two real factors determining the rate of interest (Friedman and Kuttmer, 1991).

The implication of the theory, is that different banks have different liquidate levels, in that high liquid banks should charge low interest rate on funds that are lent out in order to attract more borrowers and interest rate on savings should be low in order to discourage savings or if it charges the same rate as other banks on money borrowed

then interest rate on saving should remain very low. If that is true interest rate spread on highly liquid banks should be comparatively more than low liquid banks. Financial performance on comparatively high liquid bank should then be better than low liquid bank (Rochon and Vernengo, 2001).

#### 2.1.2. Loanable Funds Theory

The loanable funds theory assumes that interest rates are determined by supply of loanable funds and demand for credit. The loanable funds theory is an attempt to improve upon the classical theory of interest. It recognizes that money can play a critical role in the saving and investment processes and thereby causes variations in the level of income. Thus, it is a monetary approach to the theory of interest, as distinguished from that of the classical economists. In fact, the loanable funds theory synthesizes both the monetary and non-monetary aspects of the problem (Wensheng, Wung and Shu, 2002).

According to the loanable funds theory, the rate of interest is the price that equates the demand for and supply of loanable funds. At the equilibrium level where demand = supply of loanable funds, savers and investors are the happiest possible. Fluctuations in the rate of interest arise from variations either in the demand for loans or in the supply of loans or credit funds available for lending. Ngugi (2001) argued that interest is the price that equates the demand for loanable funds with the supply of loanable funds.

Loanable funds are the sums of money supplied and demanded at any time in the money market. The supply of 'credit' or funds available for lending would be influenced by the savings of the people and the additions to the money supply (usually through credit creation by banks) during that period. The demand side of the loanable funds, on the other hand, would be determined by the demand for investment plus the demand for hoarding money (Turnovsky, 1985).

#### 2.2. Empirical Review

A number of studies have been conducted on the subject of interest rate capping on performance of commercial banks both in Kenya and in other countries.

#### 2.2.1. Interest Rate Capping on Banks' Performance

Irungu (2013) sought to determine the effect of interest rate spread on the performance of commercial banks in Kenya. The study found a strong positive relationship between financial performance of commercial banks and interest rate spread. According to the study, interest rate spread affected performance of assets in banks as it increases the cost of loans charged on the borrowers and regulation on interest rates had a significant impact on assets non-performance. The study recommended interest rate regulation by the government to safeguard borrowers from exploitation by commercial banks. Ngure (2014) investigated the effect of interest rates volatility on the performance of commercial banks in Kenya. The study found that interest rates have significant linear positive effect on financial performance of commercial banks in Kenya. Further, the study concluded that bank size and interest rate volatility had an effect on profitability of commercial banks. The study recommended that policies be put in place to shield bank lending rates and ensure monitoring of the same. To cushion consumers from exploitation by commercial banks, the study recommended that the Central Bank of Kenya exercises its monitoring roles strictly and discipline any commercial banks that may be increasing the interest rates arbitrary to boost their profits.

Okech (2013) undertook a study on the effect of lending rates on the performance of commercial banks in Kenya. The study considered management efficiency and operating cost efficiency, in regard to lending interest rate. The study found that a weak positive relationship between lending rates and performance of commercial banks. Since interest rates accounted for only 14.4% of the revenue in commercial banks, the study recommended income source diversification for better performance. Kipngetich (2011) examined the effect on interest rates on the performance of commercial banks in Kenya. The study used published incomes statement of commercial banks between 2006 and 2010 to model the relationship between interest rates and financial performance. The study concluded that in the short term, interest rates did not have a significant effect on profitability of commercial banks. The study recommended the application of diversification strategies to enhance performance of commercial banks.

Anbar and Alper (2011) posit that an efficient banking sector can promote economic growth, while credit insolvencies could result in systematic crisis. Interest rates form a significant portion of revenue in commercial banks. The profitability of commercial banks is partly dependent on the interest spread, the difference in interest rates charged on loans and what is paid to suppliers of funds (Pyle, 1971). According to Baum, Caglayan & Ozkan (2009), interest rate volatility has negative impact on the financial performance of commercial banks posing challenge to commercial banks managers in their core function of credit management and profitability. On the other hand, a rise in interest rates translates to higher returns on new investments, increased profit margins on loans, and improved earnings from bond trading. The Kenyan financial sector is dominated by commercial banks which play a vital role in the economy through economic resource allocation. They act as intermediaries between savers and borrowers, provide investment opportunities for savers and provide savers with experts in financial management. Interest rates determine the profitability of a commercial bank among other factors (Gregory et al., 2005). Stability of commercial banks has a direct impact on the economic stability of Kenya.

Various empirical studies have also been performed investigating interest rates and profitability in advanced economies. Enyioko (2012) examined the performances of banks in Nigeria based on the interest rate policies. The study found that interest rate policies did not improve the overall performances of banks significantly. Aburime (2008) found that real interest rate, inflation, monetary policy and foreign exchange regime were positively associated with banks' return on assets of the banks in Nigeria. Bosson and Jog-kun (2002), however found out that profitability of Ghanaian banks is skewed towards large banks and that there is correlation between bank size and profitability. In Kenya there has been an extensive research on the area of interest rates and profitability. Kipngetich (2011) examined the effect of interest on the performance of commercial banks in Kenya. The study found a positive relationship between interest rates and financial performance of commercial banks in Kenya. However, there seems to be a dearth of information on the effect of capping interest rate on performance of commercial banks in Kenya.

Mbai (2006) found out that proper interest rate management reduced bank exposure to risk and provided an opportunity to stabilize and improve their net income. Ogilo (2012) studied the effect of credit management on the performance of commercial banks in Kenya. The study found that there is a strong impact between the Capital adequacy, Asset quality, Management, Earnings and Liquidity (CAMEL) components on the financial performance of commercial banks. The studies above provide valuable insights on interest rates and financial performance; however, they do so only partially. Given the volatile macroeconomic environment in Kenya, there is need for up to date research on the complex relationship between interest rates and financial performance. Basing on the foregoing, it is imperative to study the relationship between interest rates and financial performance in Kenya. This study therefore seeks to answer the question: what is the effect of interest rates on the financial performance of commercial banks in Kenya?

Traditionally, interest rate caps in Kenya were abandoned in the year 1991. From this time, it is only in the year 2016 that the interest rate cap was reintroduced in the country. Research has shown that over the past years, the use of interest rate caps has reduced especially within developing countries. The reason for such reduction in these policies that champion interest rate capping as a means for the government to reverse the impacts of financial crises within their economies is for there to be the growth of the financial markets and making such markets to be easily available, positively impact the economy's productivity and aid in the reduction of poverty.

#### 2.2.2. Interest rate capping on customers borrowing

In most countries, commercial banks' reserve accounts with the central bank must have a positive balance at the end of every day; in some countries, the amount is specifically set as a proportion of the liabilities a bank has on its customers. At the end of every day, a commercial bank will have to examine the status of their reserve accounts. Those that are in deficit have the option of borrowing the required funds from the central bank, where they may be charged a lending rate which is also referred to as the discount rates on the amount they borrow. In a balanced system, where there are just enough total reserves for all the banks to meet requirements, the short-term interbank lending rate will be in between the support rate and the discount

rate. Both the Treasury and the central bank are involved in these reserve management operations to maintain interest rate stability (Palley, 2012).

According to some of the studies done in the African region, Sub-Saharan African (SSA) countries interest rate spread is influenced by the extent of the crowding out effect of government borrowing, public sector deficits, discount rate, inflation, level of money supply, reserve requirement, level of economic development and population size (Folawewo and Tennant, 2008). Some of these factors affect macroeconomic variables which to a greater extent highly determine interest rates behavior.

Chirwa (2002) carried out a study on commercial banks in Malawi and reported that if interest rates were not controlled, then the big banks that have major control may exploit customers by increasing interest rates on borrowing while maintaining low interest rate earned by customers. Money borrowed from the central bank by commercial banks is expected to be repaid on profit. This helps the government to generate more profits as it serves the interest of the people. It is in this context that interest rates are seen as a tool of business both to the government and other stakeholders in their business.

Quadan (2004) argued that more efficient banking system benefits the real economy by allowing 'higher expected returns for savers with a financial surplus, and lower borrowing costs for investing in new projects that need external finance. Therefore, if the banking sector's interest rate spread is large it discourages potential savers due to low returns on deposits and thus limits financing for potential borrowers. Valverde (2004) noted that because of the costs of intermediating between savers and borrowers, only a fraction of the savings mobilized by banks can be finally channeled into investments. An increase in the inefficiency of banks increases these intermediation costs, and thereby increases the fraction of savings that is 'lost' in the process of intermediation.

An analysis of bank interest rate determinants is therefore central to the understanding of the financial intermediation process and the macroeconomic environment in which banks operate. When planning to implement the interest rate caps by a country, there is the need for the policy makers to give a clear definition to the schemes that they intend to use. These will normally include the authority from which the rate setting is sourced, the legal instruments used to set up such an interest rate cap and whether such an interest rate cap would only be implemented on the loans or the commissions and fees as well (Maimbo and Henriquez, 2014). Additionally, policy makers also have to take into consideration whether there would be variations in interest rate cap as per the type of credit taken up, or if the cap will be relative or absolute. In the interest that the interest rate cap is relative, the policy makers will have to ask themselves several questions. For instance, will it be endogenous or exogenous to the credit market or will it be a fixed margin over the bench mark rate set by the central bank, or a multiplication coefficient?

There are different forms that are taken up by interest rate regimes. According to Wensheng et al., (2002), such interest rate regimes are dependent on the source of authority that implements the interest rate control. The controls that are normally implemented for interest rates include; usury limits, interest rate controls and defacto ceilings. The use of interest rate controls is normally sourced from central bank laws, while usury limits way of controlling the interest rates are normally made in form of legislations which are then transferred to a given government body, with directions for the rates being implemented by different financial institutions (Wengsheng *et al.*, 2002). The usury laws also form the most widely used form of legal tool in the control of interest rates. Examples of countries which have been making use of Usury laws include Namibia, France and Japan (Maimbo and Henriquez, 2014).

Contrary to this, the use of de facto ceilings is normally implemented in cases when the usury laws have not been formulated in to legislations or policies that can be implemented. They include the control of interest rates at a low level through use of judicial activism or political pressure. An example of a country in which de facto ceilings are implemented is Pakistan (Maimbo and Henriquez, 2014). In this country, there is the limitation placed on interest rates and their rise through government programs. Taking a view at Ethiopia, the implementation of low interest rates by the country's financial institutions is due to political reasons.

#### 2.2.3. Interest rate capping on customers inflation rates

The study indicates that inflation rates had a negative but significant effect on performance of commercial banks in Kenya. This is consistent with Otuori (2013) who studied the Influence of exchange rate determinants on the performance of commercial banks in Kenya. As per the study inflation rate had a negative and significant effect on bank profitability. It's also consistent with Bergen (2010) who studied countries with higher inflation rates observed some depreciation in their currency which meant that the performance of a country in relation to its trading partners was usually low. This is also usually accompanied by higher interest rates resulting into a negative relationship between inflation and performance of banks.

These findings are consistent with Aburime (2008) who used a sample of 154 banks with 1255 individual observation on unbalanced panel data over the period 1980-2006 to investigate the macroeconomic determinants of bank profitability in Nigeria. The result revealed that real interest rate, inflation, monetary policy and foreign exchange regime are negatively associated with banks' return on assets.

Discount rate had a positive and significant effect on the performance of commercial banks in Kenya. This is consistent with Brock (2010) who studied the relation between commercial bank profit rates and banking concentration in Canada, Western Europe, and Japan. and indicated that when central banks raise their discount, rates, commercial banks may raise their lending rates sooner by more percentage points than their deposit rates which means when discount rates are high, commercial banks' profit rates are also high because the banks interpret the high discount rates as a signal to raise their lending rates without as great an increase in their borrowing rates.

Alper and Anbar (2011) investigated bank specific and macroeconomic determinants of commercial bank profitability in Turkey over the period of 2002-2010. The study used both return on asset (ROA) and return on equity (ROE) as proxy for bank profitability. By employing balanced set of panel data and fixed effect model, the result showed that only real interest rate was positively related to profitability with regards to macroeconomic variables. In other words, an increase in real interest rate which is influenced by increase in inflation rates would lead to an increase in

commercial banks' profitability in Turkey. Bergen (2010) studied countries with higher inflation and observed that there was depreciation in their currency in relation to the currencies of their trading partners. This is also usually accompanied by higher interest rates resulting into a positive relationship between inflation and performance of banks.

Waseem et al. (2014) studied the impacts of inflationary trends on banks' performance in Pakistan. The study concluded that as inflation increases, ROA, ROE and net interest margin of Muslim Commercial Bank Limited, Allied Bank Limited, United Bank Limited and Bank Al-Falah Limited also increased. The study concluded that there was a positive association between inflation and bank performance of this large banking segment of the Pakistan banking industry.

Otuori (2013) studied the Influence of exchange rate determinants on the performance of commercial banks in Kenya. As per the study inflation rate had a negative and significant effect on bank profitability. Lardic & Mignon (2003) studied the relationship between interest rate and inflation rate in G-7 countries using Engel-Granger co integration method. According to their study, there is a long run relationship between interest rate and inflation rate.

#### 2.2.4. Interest rate capping on customers discount rates

According to Obiero (2012), when the government increases the discount rate, it does not have an immediate impact on the stock market. Instead, the increased discount rate has a single direct effect. It becomes more expensive for banks to borrow money from the CBK. However, increasing the discount rate can also cause a ripple effect, and factors that influence both individuals and businesses are affected. Ndungu, (2003) studied that with an increased discount rate banks increase the rates that they charge their customers to borrow money thus lead to an increase in performance. This will affect Individuals negatively through increase in credit card and mortgage interest rates, especially if they carry a variable interest rate.

Chirwa et al. (2004) used panel data techniques to investigate the causes of interest rate spreads in the commercial banking system of Malawi over the liberalized period

of the 1990s. Their results showed that high interest rate spreads were attributable to monopoly power, high reserve requirements, high central bank discount rate and high inflation. Demirguc-Kunt et al. (1999) using bank level data for 80 industrial and developing countries over the period 1988-1995 showed that differences in interest margins reflect a variety of determinants such as bank characteristics, macroeconomic conditions, explicit and implicit bank taxes and the overall financial structure.

#### 2.3. Financial Performance of Commercial Banks

Financial performance refers to a status of measuring the outcome of a firm or a financial institution, whose outcome are reflected in the firm's return on investment, return on assets and value added. Madura and Ngo (2008) alludes that other factors that affect the performance of the banking industry include main sources of funds, their main uses of fund and off-balance sheet activities that they provide. The Bank's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on its financial performance. Boldizzoni (2008) noted that for better performance of credits or loans, a well-structured collection policy is required and if the financial institutions do not implement it then the institutions are likely to lead to loan delinquency.

#### 2.4.1 Measurement of bank financial performance

Flamini *et al.* (2009), Naceur & Goaied (2008) and Saona (2011) showed that bank profitability is either measured by return on assets, the net interest margin or return on equity. Return on Asset (ROA): Is got by dividing the net income of the bank by the amount by its assets. ROA is a useful measure of how well a bank manager is doing on the job because it indicates how well a bank's assets are being used to generate profits; the higher, the better. Return on assets is a common figure used for comparing performance of financial institutions (such as banks), because the majority of their assets will have a carrying value that is close to their actual market value. Net Interest Margin (NIM) is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example deposits), relative to the amount of their assets (interest earning).

The higher the net interest margin, the higher the bank's profit and the more stable the bank is. It is usually expressed as a percentage of what the financial institution earns on loans in a time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets). Return on Equity (ROE) provides useful information about bank profitability. This is important since shareholders are often more concerned about how much the bank is earning on their equity investment an amount that is measured by the return on equity (ROE). The ROE therefore reflects how effectively the bank management is using shareholders 'funds to improve its income.

Commonly used by investors, the ROE ratio is an important measure of a company's earnings performance. The ROE informs common shareholders how effectively their money is being employed. Gavin (2010) carried study on the factors affecting banking sector interest rate spread in Kenya. This study sought to establish the factors that influence interest rate spreads in commercial banks in Kenya. The study adopted a descriptive and quantitative research design on a sample of 15 commercial banks in Kenya which accounted for 85% of all the loans disbursed between 2002 and 2009. The study used secondary data obtained from the banking survey publication, Africa development indicators and the Central Bank of Kenya reports. The study established that intermediary efficiency is affected by bank market share of assets, overheads, return on assets, liquidity, market share of loans and proportion of non-interest income to total income.

There is evidence of capital adequacy ratio, treasury bills rate and the discount rate also having a significant impact on interest rate spreads. The study could not find evidence to support the impact of market share of deposits, inflation and cash reserve ratios on banking interest rate spreads. The study concludes that the bank-specific factors are the most significant factors influencing interest rate spreads of commercial banks in Kenya than macroeconomic factors. It reveals that there are two types of spreads; one influenced by commercial banks' ability to mobilize funds at a lower cost and one influenced by high non-operational costs (overheads). Interest rate

spreads influenced by ability to mobilize funds at a low cost are usually associated with large banks by market share of assets.

Ngugi and Kabubo (1998) carried out a study on financial sector reforms and interest rate liberalization. The study intended to explore the sequencing and actions so far taken in the liberalization process in Kenya. The study also examined the interest rate levels, spreads and determining factors, as indicators of financial sector response to the reform process. Using a sample of 20 banks in Kenya, data was collected from relevant sources such as central bank and reports from various institutions. The study found that although much had been accomplished, the financial system was characterized by repression factors including negative real interest rates, inefficiency in financial intermediation and underdeveloped financial markets. This indicated that the economy was facing secondary financial repression. Interest rates were more responsive to the policy activities during the period than to the fundamentals. Interest rates were monetary phenomenon with an adjustment speed of 77% to disequilibrium in the monetary sector. The study concluded that there are several loose knots that need to be tightened for the economy to experience significant positive effects of financial liberalization.

Ngetich and Wanjau (2011) carried out a study on the effects of interest rate spread on the level of non-performing assets in the Kenyan commercial banks. The study sought to establish the effects of interest rate spread on the level of non-performing assets in commercial banks in Kenya. The study adopted a descriptive research design on a sample of all the 43 commercial banks operating in Kenya at the time (2008). The study used questionnaires to collect data from primary sources while, secondary data was collected from bank supervision reports, to augment findings from the primary data. The study found that interest rate spread affect performance assets in banks as it increases the cost of loans charged on the borrowers. The conclusion made was that interest rates have far reaching effects on assets non-performance.

Ngugi (2013) from the African Economic Research Consortium carried out a study on interest rate spread in Kenya. His study investigated the impact of financial intermediaries' inefficiency. Data was collected from 43 financial institutions

operating in Kenya. The study found that the wedge between the lending and deposit rates was wide. Under perfect competition the wedge is normally narrower, composed only of the transaction cost, while in an imperfect market, the wedge is normally wider, reflecting inefficiency in market operation. Inefficiency in the intermediation process is a characteristic of a repressed financial system. This is because in a control policy regime selective credit policies involve substantial administrative costs, and interest rates with set ceilings fail to reflect the true cost of capital. Such a policy regime constrains the growth of the financial system in terms of diversity of institutions and financial assets and encourages non-price competition.

Were and Wambua (2013) from Research Centre, Kenya School of Monetary Studies, Central carried out a study to establish determinants of interest rate spread of Kenyan commercial banks. The study collected data from all the 44 commercial banks in the country. The empirical results showed that bank-specific factors play a significant role in the determination of interest rate spreads. These include bank size based on bank assets, credit risk as measured by non-performing loans to total loans ratio, liquidity risk, return on average assets and operating costs. The impact of macroeconomic factors such as real economic growth and inflation were not significant. Similarly, the impact of policy rate as an indicator of monetary policy was found to be positive but weak. The study concluded that big banks had higher spreads compared to smaller banks.

Wensheng *et al.*, 2002) carried out a study on the impact of interest rate shocks on the performance of the banking sector. The study intended to establish the impact of interest variation on the bank performance. The study sampled two banks and analyzed data from 1992 to 2002 a period of ten years. The study found out that a rise in the Hong Kong dollar risk premium, signified by a widening of the spread between Hong Kong dollar and US dollar. Further, interest rates would influence banks' profitability mainly through its impact on (i) asset quality that affects provisioning charges and (ii) net interest margin. Empirical estimates on data from 1992-2002 showed that the net interest margin declined in response to increases in the risk premium, because deposit interest rates were more sensitive to changes in the risk

premium than the lending rate. A change in the domestic interest rate along with the US interest rate had little impact on the margin in the period under study.

Grenade (2007) carried out a study on determinants of commercial banks' interest rate spreads in Eastern Caribbean Currency Union. A trend analysis of commercial banks' interest rate spreads in the Eastern Caribbean Currency Union (ECCU) over the period 1993 to 2003 was done. The study sampled 8 foreign banks and 8 indigenous banks and employed panel data techniques to measure the relevance of micro and macro factors in determining commercial banks interest rate spread over the period. The findings showed that, spreads had been strong and persistently showed little signs of narrowing while foreign owned banks had been operating with larger spreads compared to their indigenous counterparts. The results also indicated that the observed spreads could be attributed to the high level of market concentration, high operating costs and non- performing loans and the central bank's regulated savings deposit rate.

Boldbaatar (2006) carried out a study to examine commercial banks' interest rate spreads between lending and deposit rates. The study intended to examine factors that affect interest rate spread in SEACEN countries banks. The study sampled 40 banks from 6 different countries covering the period from 4<sup>th</sup> quarter of 1998 until 4<sup>th</sup> quarter of 2004. Data was obtained from financial statements which were distributed to member central bank. The study revealed that banks' spreads were mainly influenced by bank specifics, market forces and the regulatory environment. The findings of the study indicated that the factors that increase the spread in the selected SEACEN countries include market concentration and credit risks. However, bigger banks tend to operate with lower spreads due to better managerial efficiency. Reserve requirements are also costly for customers but statutory reserve remuneration appears to mitigate this burden effectively, at least in some countries. Consolidation through mergers and acquisitions can give banks the market power to operate with higher spreads, contributing to long term stability and profitability of banks.

Common examples of financial performance include operating income, earnings before interest and taxes, and net asset value. It is important to note that there is no one measure of financial performance that should be taken on its own. Rather, a thorough assessment of a company's performance should take into account many different measures. Financial performance analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing the relationship between the items of balance sheet and profit and loss account. Quarden (2004) argued that financial performance analysis helps in short-term and long term forecasting and that growth can be identified with the help of financial performance analysis. The dictionary meaning of 'analysis' is to resolve or separate a thing in to its element or components parts for tracing their relation to the things as whole and to each other. To establish financial performance analyst need to consider analysing financial statement of the organization.

The analysis of financial performance is a process of evaluating the relationship between the component parts of financial statement to obtain a better understanding of the firm's position and performance. This analysis can be undertaken by management of the firm or by parties outside namely: owners, creditors and investors as illustrated by Chenn (2011). Financial performance measurement ratios such as asset utilization/efficiency ratios, deposit mobilization, loan performance, liquidity ratio, leverage/financial efficiency ratios, profitability ratios, solvency ratios and coverage ratios are all used to evaluate the bank's financial performance (Bekan, 2011).

#### CHAPTER THREE

### RESEARCH DESIGN AND METODODLOGY

The chapter outlines the research design and methodology to be followed in conducting this study. It describes the research design, target population, the research instruments, the sample and sampling procedures, the data collection procedures and description of data analysis procedures.

#### 3.1. Research Design

This study adopted a descriptive cross-sectional survey design in which information was collected at a single point in time from purposively selected officials from all the commecrial banks operating within Kisumu County. The descriptive research design often describes data and characteristics about the population or phenomenon being studied. According to Coopers and Schindler (2004) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions. The descriptive survey is usually concerned with describing a population with respect to important variables with the major emphasis being to establish the relationship between the variables. The survey design is appropriate for this study as it involves a careful analysis on the effect of interest rate capping on the financial performance of commercial banks in Kisumu County.

#### 3.2. Study Area

This study was conducted within Kisumu County. Kisumu serves as the principal city of western Kenya, the capital of the former Nyanza Province. Kisumu city is situated at an altitude of 1131m and has a direct access to the Winam Gulf, which leads to the vast expanses of the rest of Lake Victoria, covering a total area of 68.000 km2. Kisumu County is served by Kisumu Airport- the third busiest airport in Kenya, and serves as a business hub with many traders trading in various products and services. Over the past 20 years the population of Kisumu County has more than doubled. Today Kisumu town has a population of over 409,928 that was reported during the 2008 census (KNBS, 2009). Kisumu County is served by a total of 34 commercial banks, a number of micro-finance institutions and forex bureaus which serve the population within the county.

### 3.3. Target Population

According to Frederic *et al.* (2015), the target population is a set of individuals, objects or cases with some common observable characteristics. The population of interest in this study will comprise of all the 34 commercial banks operating within Kisumu County (List of commercial banks in Annex 1). The census approach was used in selection of these 34 commercial banks operating within Kisumu County. This approach is necessitated when the target population is relatively small (Kothari, 2004) as it is the case with the current study. From each of the 34 banks, Credit Management Officer was purposively selected to participate in this study. This is because this particular employee is perceived to be more conversant with the topic of study hence likely to give the most accurate responses.

### 3.4. Description of Research Instruments

Primary data for this study was gathered using on field survey methods. To elicit the responses, a detailed questionnaire was designed and used for the study. The questionnaire contain 3 parts: Part A seek data on general information; Part B collect information about interest rate capping in commercial banks operating within Kisumu County and Part C contain questions on the effect of the interest rate capping on the financial performance of the banks. The questions were both open and closed-ended and was based on interest rate capping factors and how they are affecting the financial performance of commercial banks. The open-ended questions was to offer the respondents the opportunity to expound on any an area while offering them room to freely express themselves on the issues under consideration while the close-ended questions constrained the respondents on the options provided in the available questionnaire.

#### 3.5. Description of the Sample and Sampling Procedures

According to Amin (2005), purposive sampling technique is used where a researcher normally selects a sample based on his or her experience of knowledge of the group to be sampled and has in mind that the respondents have the information that is needed. This survey was used a purposive sampling technique to select the respondents in all the 34 commercial banks operating in Kisumu County. The researcher used purposive sampling to ensure that representatives / heads of credit and finance departments are

considered in the study to ensure that the study captures relevant staff with the required skills in the study. From each bank, the sample comprised of one credit management Officer.

## 3.6. Description of Data Collection Procedures

The study collected both primary data. Primary data will be collected by use of a structured questionnaire from credit management Officer in each of the 34 commercial bank using a structured questionnaire which will be administered through a drop and pick later method. This method is preferred because it does not inconvenience the respondents since they could answer the questions during their free time.

## 3.7. Description of Data Analysis Procedures

Data obtained was analysed using statistical package for social sciences (SPSS). Descriptive statistics used to give summaries of study variables, while the relationship between customer borrowing, inflation rates and discount offered on commercial banks performance (return on equity) were determined using regression analysis. Below is the regression model that was used.

$$Y = \alpha + B_1X_1 + B_2X_2 + B_3X_3 + e$$

Whereby;

Y= financial performance of the banks

 $\beta$  = Beta coefficient

 $\alpha$  = Constant term/intercept

X1= customer borrowings

X2= discount rates

X3 = inflation rates.

e= error term

One-way ANOVA was used to establish the significance/fitness of the model. The results obtained from the analysis was presented in tables, figures and text.

# **CHAPTER FOUR**

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1. Introduction

This chapter gives a representation of the results drawn from the data collected in the field. Both the use of descriptive and inferential statistics has been used. This has been done through the use of regression and ANOVA in order to establish the fitness and significance of the model of study plus to determine the link that exists between interest rates and the performance of commercial banks within Kisumu County.

# 4.2. Descriptive Statistics of the Population

This offers a summary of the population under consideration, between their financial performances and the interest rate. The results of tests based on the differences to the extent of the variables under consideration were accounted for; interest rate, its effect on customer borrowing, inflation rate of commercial banks in Kisumu and the discount rates offered by the banks within Kisumu County. Other variables that were taken into consideration include the customer borrowing rate, bank loans rate and the GDP growth rate.

#### 4.3. Study Results

46 questionnaires were issued to the participants, of which 36 were successfully completed and returned for analysis. This indicates a response rate estimated at 78.26%.

**Table 4.1: Response Rate** 

Respondents	Frequency	Percentage (%)
Questionnaires Issued	46	100.0
Questionnaires Returned	36	78.26
Questionnaires not	10	21.74
Returned		

Source: Research data, (2017)

From the table above, it can therefore be deduced that there was no non-response bias among the participants.

4.4. Influence of customer borrowing on performance of commercial banks

Table 4.2: Extent to which aspects of customer borrowing influence Performance

	N	Mean	Std.
			Deviation
Interest Capping policy influence on cost of customer	36	3.44	0.877
borrowing			
The upward level of nonperforming loans	36	2.58	1.025
The downward level of nonperforming loans	36	2.47	0.878
Operation Cost Increase	36	3.11	.950
Operation Cost Decrease	36	2.52	1.045
Customer Satisfaction Increase	36	2.86	0.990
Customer Satisfaction Decrease	36	2.59	0.980
Innovation Increase	36	3.08	1.105
Increase in Industry Competition	36	2.64	1.150
Aggregate score			2.810 1.0000

Source: Research data, (2017)

The table 4.2 above shows answers the questions on the relationship between interest capping policy influence on cost of customer, the upward and downward of nonperforming loans, operation costs, customer satisfaction and increase in industry competition. The aggregate mean score was 2.810, indicating that the respondents had a moderate extent to agree with the questions on reserve requirement. The aggregate standard deviation was 1.000 indicating that there was no variation on the responses made by the respondents.

4.5. Influence of discount rate on performance of commercial banksTable 4.3: Extent to which aspects of Discount rates influence performance

	N	Minimum	Maximum	Mean	Std. deviation
Interest rates	36	1	5	3.96	1.076
Borrowing and lending	36	2	5	4.00	.894
Overall volume of lending	36	1	5	3.85	1.120
Announcement effect	36	3	5	4.04	.824
Bank size36	36	1	5	3.73	1.151
Competition	36	3	5	3.96	.824
Aggregate score					3.923333
					0.9815

Source: Research Data, (2017)

Based on the data, the study found out that the discount rates were influenced by the interest rate cap and thereby further influenced the performance of the commercial banks. Due to the interest rate cap, there was a resultant increase in discount interest rates which depicted a mean score of 3.923333, indicating that the respondents to a great extent agreed with the questions on discount rates. The aggregate standard deviation was 0.9815, indicating a minimal variation on the responses to the questions.

# 4.6. Influence of inflation rate on performance of commercial banks

Table 4.4: The extent of which aspects of inflation rates influence performance of commercial banks

	N	Minimum	Maximum	Mean	Std. deviation
Interest rates	36	3	5	4.19	.810
Money supply and demand	36	1	5	3.08	1.383
Movement of interest rate	36	1	5	2.85	1.488
Unemployment	36	4	5	4.50	.510
Exchange rate	36	3	5	4.23	.765
Price of goods and service	36	3	5	4.42	.578
Aggregate score					3.87833
					0.920833

Source: Research Data, (2017)

The table gives the indication that the Inflation rates coupled with the interest rate capping also influence the performance of commercial banks within Kisumu County. The aggregate mean score was 3.878333, indicating that the respondents had a very great extent agreeing with the questions on inflation rates. The aggregate standard deviation was 0.920833, indicating that there was little variation on the responses by the respondents.

#### 4.7. Financial Performance

Table 4.5: Financial Performance of the Banks after the introduction of interest rate capping

Statement	N	Mean	Std. Deviation
Increase in income for 2016 Fourth Quartile	36	2.53	0.845
Decrease in income for 2016 Fourth Quartile	36	3.06	1.013
Increase in operational costs in 2016 Fourth Quartile	36	2.72	0.914
Decrease in operational costs in 2016 Fourth Quartile	36	2.28	0.849
Increase in ROCE in 2016 4 <sup>th</sup> Quartile	36	2.83	0.775
Decrease in ROCE in 2016 4 <sup>th</sup> Quartile	36	2.22	0.959
Increase in ROI in 201 4 <sup>th</sup> Quartile	36	2.78	0.797
Decrease in in ROI in 201 4 <sup>th</sup> Quartile	36	2.58	0.806

Source: Research Data, (2017)

The concept of the impact that the interest rate capping had on commercial banks can be said to be on the average. This is because some of the banks noted a relative increase in the performance levels, depicted mainly in the 4<sup>th</sup> quartile of the 2016 financial year. However, a number of the banks also noted a decrease in the same during the same time period. Based on the recorded mean scores, the banks that noted an increase in their performance levels recorded a mean score of 2.53 while those that had a decrease recorded a mean score of 3.06, giving the indication that there was a greater negative impact on the performance of the commercial banks drawn from the interest rate cap. The banks' operation costs also increased during the 2016 4<sup>th</sup> quartile, giving a mean score of 2.72.

## 4.5. Inferential Analysis

This part involves results of a multi-regression analysis on the variables used in the study.

Strength of the relationship between interest rates determinants and performance of commercial banks

**Table 4.6: Model Summary** 

Model	R	R	Adjusted	R Std. Error of Durbin-
		Square	Square	the Estimate Watson
1	.765 <sup>a</sup>	.585	.506	.20605 2.475

From the finding in the above summary table, R square (co-efficient of determination) =0.585, indicating that 58.5% of the total variation in performance of commercial banks is accounted for by corresponding change in inflation rates, discount rates and the customer borrowing.

#### **Anova Analysis**

		Anova <sup>b</sup>			
Model	Sum of Square	df	Mean Square	F	Sig.
Regression	1.257	3	.314 7	.405	.001ª
Residual	.892	21	.042		
Total	2.149	25			

a. Predictors: (Constant), customer borrowing, Discount rate, Inflation rates

Source: Research Data, (2017)

The above ANOVA indicate that the data is ideal for making a conclusion on the population's parameter as the value is significant at P<0.001. it indicates that the regression relationship was significant in predicting how the variables; inflation rates, discount rates and the customer borrowing influence the performance of commercial bank.

## 4.6. Correlation between the Dependent and the Independent Variables

A Karl Pearson correlation is carried out in order to establish a correlation between the independent variable and the dependent variables.

b. Dependent Variable: Performance of commercial banks

**Table 4.7: Interest Rate Determinants** 

	Unstandardize	ed coefficients	Coefficient	s Standardized	
Model	В	Std. Error	Beta	t	Sig
Constant	1.9320	.964	2.003		.058
Inflation rates	061	.131	-0.71	463	.016
Customer	098	.062	257	-1.586	.002
borrowing					
Discount rate	.415	.103	.611	4.023	.001

a. Dependent Variable: Performance of commercial banks

Source: Research Data, (2017)

From the above coefficients, the established regression equation was:

Y = 1.932 - 0.071X1 - 0.257X2 + 0.611X3 + 0.964.

The equation reveals that holding discount rates at a constant, performance of commercial banks in Kenya within Kisumu county would be at 1.932. The study shows a negative relationship between inflation rates, and customer borrowing and performance of commercial banks in Kenya. The study found that the discount rates held a positive relationship with the performance of commercial banks in Kenya. That is an increase in discount rates will result into an increase in performance of commercial banks.

The study indicates that inflation rates had a negative but significant effect on performance of commercial banks in Kenya. This shows consistency with Otuori (2013) who studied the Influence of exchange rate determinants on the performance of commercial banks in Kenya. As per the study inflation rate had a negative and significant effect on bank profitability. It's also consistent with Bergen (2010) who found out that countries with higher inflation observes that there is depreciation in their currency which means the performance of a country in relation to its trading partners is usually low in his study. This is also usually accompanied by higher interest rates resulting into a negative relationship between inflation and performance of banks. So inflation rates conforms with empirical studies that are done by individuals in the previous years.

Discount rate had a positive and significant effect on the performance of commercial banks in Kenya. This is consistent with Brock (2010) who studied on the relation between commercial bank profit rates and banking concentration in Canada, Western Europe, and Japan. and stated that when central banks raise their discount, rates, commercial banks may raise their lending rates sooner by more percentage points than their deposit rates which means when discount rates are high, commercial banks' profit rates are also high because the banks interpret the high discount rates as a signal to raise their loaning rates without a similar increase in their savings rates by customers.

#### **CHAPTER FIVE**

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1. Summary of Findings

According to the study, all the three independent variables have an impact on the performance of commercial banks and are all dependent upon the capped interest rate. The results can be translated to mean there is a positive correlation between the financial performance of the commercial banks and the loan interest rates. Based on the results of the questionnaires from the respondents, the capped interest rates have improved on the innovativeness of the banks and their workforce in an attempt to generate further sources of income to cushion against the negative impacts a capped interest rate has on their income levels.

With the increase in numbers of customers taking up loans due to the interest rate caps, the banks also have to take into account the additional administrative or operational costs involved in the processes such as those carried out to assess the credit worthiness of customers. With the respondent mean score of above average, the cost of borrowing upwards is also impacted by the interest rate cap. All these give the indication of the positive correlation that exists between the financial performance of commercial banks in Kisumu County and the interest rate caps placed on the loans.

There is also a significant positive relationship between the performance of commercial banks within Kisumu County and the inflation rates present within the systems. The interest rate on the inflation levels can be said to have surpass the rule of thumb, further highlighting the significant strong relationship that exists between inflation rates and the financial performance of the commercial banks. In general, the capped interest rates resulted in a decrease in the commercial banks' income and an increase in their total operational costs. Even so, there can still be established an increase in the ROCE and income on ROI with mean scores. This can therefore be concluded to say that the financial performance of the banks can be are directly and positively influenced by the three dependent variables and are therefore impacted by the interest rate cap.

#### **5.3.** Conclusions

The study found that to a great extent the discount rates influence the performance of commercial banks in Kenya. The Discount rates strongly influence performance of commercial banks in Kenya. That is there is a positive relationship between the discount rates and the performance of commercial banks in Kenya. This is in line with Ndungu, (2003) who studied that with an increased discount rate banks increase the rates that they charge on their customers to borrow money thus lead to an increase in performance. The study therefore concludes that the higher levels of discount rates lead to a positive level of performance of commercial banks in Kisumu, Kenya.

The study found that to a very great margin Inflation rates influence the performance of the commercial banks in Kenya. There is a negative relationship between the inflation rates and the performance of commercial banks in Kenya. Rise in inflation rates results in decline in performance of banks. This correlate with Waseem et al. (2014) who studied on the impacts of inflationary trends on banks' performance in Pakistan. The study concluded that as inflation increases ROA, ROE and net interest margin of Muslim Commercial Bank Limited, Allied Bank Limited, United Bank Limited and Bank Al-Falah Limited decreases. The study therefore concludes that a rise in inflation rates will result into a decline in performance of commercial banks in Kenya.

The study found that customer borrowing has influence on the performance of commercial banks. The customer borrowing strongly affect the performance of the commercial banks in Kenya. There is a negative relationship between the customer borrowing and the performance of commercial banks in Kenya. Higher levels of customer borrowing lead to lower performance in commercial banks. In conclusion therefore, higher levels of customer borrowing leads to lower performance in commercial banks

#### 5.4. Recommendations

There is the necessity for commercial banks to limit the levels of restrictions that they have placed on the borrowers of funds. This is because loans or customer borrowings form the major platform for sourcing income for the commercial banks. However, the

high interest rates that initially ensured high levels of incomes for commercial banks before the interest rate cap are limited by the interest rate cap, thereby placing great concern for the banks in terms of ensuring their loans are repaid with interest despite the increase in number of customers taking up loans.

The study recommends that inflation rate should be controlled through sound policy measures as higher inflation rates may hurt the performance of the banking industry in Kenya. Commercial banks should pursue policies that would improve access to finance for a majority of the population, thus, raising the level of monetization in the economy for economic development and effective implementation of monetary policy. CBK should handle and deal with any imbalances and perils in the economy before they become a threat to the overall financial system stability.

# 5.5. Limitations of the Study

One of the limitations of the study is that because of the short time frame, it was not possible for there to be time to carry out an analysis of all the variable factors that might have an impact on the level of income for commercial banks, and are relatable to the prevailing interest rate. There is therefore a potential that the resultant conclusion of the study may not give a wholesome picture of the impact that the interest rate cap might have on the performance of commercial banks.

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#### **APPENDICES**

# Appendix I. List of Commercial Banks in Kenya

- 1. ABC Bank (Kenya)
- 2. Bank of Africa
- 3. Bank of Baroda
- 4. Bank of India
- 5. Barclays Bank of Kenya
- 6. Stanbic Bank
- 7. Chase Bank Kenya (In Receivership)
- 8. Citibank
- 9. Commercial Bank of Africa
- 10. Consolidate Bank of Kenya
- 11. Cooperative Bank of Kenya
- 12. Credit bank
- 13. Development Bank of Kenya
- 14. Diamond Trust Bank
- 15. Ecobank Kenya
- 16. Equity Bank
- 17. Family Bank
- 18. Fidelity Commercial Bank Limited
- 19. First community Bank
- 20. Giro Commercial Bank
- 21. Guaranty Trust Bank Kenya
- 22. Guardian Bank
- 23. Gulf African Bank
- 24. Habib Bank
- 25. Habib Bank AG Zurich
- 26. Housing Finance Company of Kenya
- 27. I &M Bank
- 28. Imperial Bank Kenya (In Receivership)
- 29. Jamii Bora Bank
- 30. Kenya Commercial Bank

- 31. Middle East Bank Kenya
- 32. National Bank of Kenya
- 33. NIC Bank
- 34. Oriental Commercial Bank
- 35. Paramount Universal Bank
- 36. Prime Bank (Kenya)
- 37. Sidian Bank
- 38. Spire Bank
- 39. Standard Chartered Kenya
- 40. Trans National Bank Kenya
- 41. United Bank for Africa
- 42. Victoria Bank

 $\underline{\textbf{Source:}}$  investementnews.co.ke/features/list-commercial banks- Kenya / Wednesday  $2^{\text{nd}}$  November 2016

Note: Commercial Banks operating in Kisumu County are in bold (Kisumunewsinfo.blogspot.com),(www.bank-Kenya.com/kisumu-banks-kenya.htm/#WHMZNVMrliu)

# **Appendix II: Questionnaire**

EFFECT OF INTEREST RATE CAPPING ON PERFORMANCE OF FINANCIAL OF COMMERCIAL BANKS IN KISUMU COUNTY, KENYA

#### A Survey Questionnaire

#### RESPONDENT CONSENT

Good Morning/Afternoon. My Name is **VICTOR KOMBO MKAYANGI**. I am a student at Maseno University, Kisumu Campus. During the past 2 years, I've been pursuing a Master' degree program in business administration with course work. I'm conducting a survey to collect data which will help in the analysis on the effects of interest rate capping on the financial performance of commercial banks in Kisumu County, Kenya. Through this survey, I will be able to establish the strong relationship between interest rate capping and commercial banks performance, challenges and risks faced by commercial banks in Kisumu County, Kenya. The information that you and other colleagues provide, will enable me to draw conclusion and strong recommendations.

Your Bank is on the list of Commercial Banks operating within Kisumu County, and i kindly requests your participation in this survey. I would like to ask you few questions related to your day to day work which touches on interest rate capping. The information you provide will be treated with utmost confidentiality and aggregated with the responses of others to establish common trends. No answers of any respondent will be traced back to any individual.

Respondent has agreed to participate:

Yes	(If Yes proceed with the interview)
	7
No L	(if No indicate reasons)

Thank you for accepting to participate in this survey. At this time, (before we proceed), do you have any questions about this survey?

# **Part I: General Information**

c) Above 500 savers

# This section must be completed for each bank visited

1.1. W	That is the name of your bank?
1.2. W	Vhat is your position in your bank?
	or how long has your bank been in existence in Kisumu County?
a)	Less than 5 years
b)	Between 5 to 10 years
c)	Above 10 years
1.4. H	low many clients does your bank have currently?
a)	Less than 500 clients
b)	Between 500 to 1000 Clients
<b>c</b> )	Above1000 client
1.5. A	re you familiar with interest rates capping?
a)	Yes
b)	No
1.6. If	yes, do you think it has an impact on borrowing or savings in your bank?
a. Yes	3
b. No	
If yes,	, please explain how?
1.7. H	fow many "Borrowers" does your bank have currently?
a)	Less than 100 borrowers
b)	Between 100 to 500 borrowers
c)	Above 500 borrowers
1.8. H	low many "saver" does your bank have currently?
	low many "saver" does your bank have currently?  Less than 100 borrowers
b)	Between 100 to 500 borrowers

# 1.9. How many "borrowers" did you have before the introduction of interest rate capping in your Bank?

- d) Less than 100 borrowers
- e) Between 100 to 500 borrowers
- f) Above 500 borrowers

# 1.10. How many "savers" did you have before the introduction of interest rate capping in your bank?

- a) Less than 100 borrowers
- b) Between 100 to 500 borrowers
- c) Above 500 savers

Part 1	I: Interest rate capping				
(Circle	(Circle the correct answer)				
INTE	REST CAPPING IMPACT				
	Has your commercial bank adopted Interest rate capping?				
2.1	1. Yes 2. No				
2.2	Is the interest rates capping followed consistently?				
	1. Yes 2. No				
2.3	How has interest rate capping affected loan acquisition by your customers?				
	a) Reduced				
	b) Increased				
	c) I don't know				
2.4	How has interest rate capping affected withdrawal by your customers?				
	a) Reduced				
	b) Increased				
	c) I don't know				
2.5	How has interest rate capping affected products for your customers?				
	a) Reduced				
	b) Increased				
	c) I don't know				

2.6	Has the interest rate capping impacted on financial performance (ROE) of your
	bank? Tick on the box and give a brief explanation why you think so
	Strongly agree neutral
	Agree disagree
	Explain
2.7	Do you think interest rates capping techniques used by your bank are effective?
	1. Yes 2. No
2.8	If your answer to Q 1.10 is Yes, what analysis criteria are being considered by your
	bank before granting or extending interest rates to the customers? (circle all answers
	that apply)
	- 1. Capital,
	- 2. Collateral,
	- 3. Conditions,
	- 4. Capacity and
	- 5. Character
	- 6. Other (specify)
	CREDIT RECOVERY EFFORT
2.9	Has your bank put in place measures to recover debts? 1. Yes 2. No 2. No
	If answer in 2.9 is Yes, what measures are put in place by management to maintain
2.10	recovery effort (Circle all answers that apply)
	1. Personal Visit and Phone calls
	2. Debt Counseling

	3. Litigation
	4. Other
	(specify)
2.11	Is your credit recovery method used by your bank followed consistently?
	1. Yes 2. No
2.12	Do customers face penalties if they don't pay on time?
	1. Yes 2.No
	If the answer above is Yes what penalties do they
	face?
2.13	In which case does the credit recovery method adopted by your bank affect financial
	performance
	(ROE)?
2.14	To what extent does credit recovery effort reduce non-performing loans and
	defaulters?
	1= To no extent
	2= To a less extent
	3= To a moderate extent
	4= To great extent,
	5=To a very great extent
	Explain

2.15	What do you think is/are the main reason (s) for credit default in your Bank?
	Loan diversion Problem
	2. Bank Policy Problem
	3. Lack of Follow-up
	4. Other (specify)
	Explain your answer please:
2.16	What are the actions taken by your bank to recover granted credit from the
	defaulters?
	Ask borrower to pay credit without interest
	2. Uses of court
	3. Other (specify)
	LIQUIDITY RISK EFFORT
2.17	LIQUIDITY RISK EFFORT  Has interest rate capping impacted on liquidity risk effort of the bank?
2.17	
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No  If yes, to what extent?
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No  If yes, to what extent?  1= To no extent
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No  If yes, to what extent?  1= To no extent  2= To a less extent
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No  If yes, to what extent?  1= To no extent  2= To a less extent  3= To a moderate extent
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes 2. No  If yes, to what extent?  1= To no extent  2= To a less extent  3= To a moderate extent  4= To great extent,
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes
2.17	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes
	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes
	Has interest rate capping impacted on liquidity risk effort of the bank?  1. Yes

2.19	How has interest rate capping affected issued amount?				
	a) Reduced				
	b) Increased				
	c) I don't know				
2.20	How has interest rate capping affected bond age?				
	a) Reduced				
	b) Increased				
	c) I don't know				
	INFLATION & GDP rate				
2.21	Do you think that your bank has experienced inflation during the past 5 years?				
	1. Yes 2. Non				
2.22	To what extent does inflation affect financial performance (ROE) in your bank? Tick				
	only one and give a brief explanation				
	1. Strongly agree				
	2. Agree				
	3. Strongly disagree				
	4. Disagree				
	5. Neutral				
	Explain				
2.23	To what extent does the GDP growth rate influence the financial performance (ROE)				
	in your bank? Tick only one and give a brief explanation if you think so:				
	1. Strongly agree				
	2. Agree				
	3. Strongly disagree				
	4. Disagree				
	5. Neutral				
	Explain				

							•••••
							•••••
2.24	Is there any relationship between GDP and interest rate capping in your bank?						
	1. Yes 2. No						
	Please explain your answer						
Part	III: FINA	NCIAL ST	<b>TATEMEN</b>	NT T			
3.1.	Kindly fill t	the table be	elow with d	etails of the	values of t	he Return Or	1
	•				ighlighted h		
Year		2011	2012	2013	2014	2015	2016
Retu		2011	2012	2013	2011	2013	2010
	ity(ROE)						
Equi	my(KOE)						
2.0	T.,		144	-11.1	. 1 1. 4 . 1	: <b></b>	
	3.2. In your own opinion, what steps should your bank take in order to improve on its						
ınter	nterest rate capping and ensure a healthy financial performance?						
•••••							

# THANK YOU FOR YOUR PARTICIPATION

Appendix III: Research Budget

Items/Services	Cost in Kshs
Computers services	3,000
Printing and photocopying of proposal and thesis copies	15,600
Binding of copies of proposal and thesis	14,000
Internet services	10,000
Stationery for questionnaire development	22,250
Transportation cost during data collection	20,000
Subsistence during data collection	10,000
Total budget	94,850

# **Appendix IV: Time Frame**

ACTIVITIES	PERIOD
Proposal development	March – July 2017
Handing over of the proposal to Head of	July 2017
academic at Kisumu Campus	
Defence of Research Proposal	August 2017
Under taking corrections	September 2017
Data collection in the field	Oct 2017
Data entry and analysis	Oct 2017
Thesis development	Oct 2017
Defence of thesis	Nov 2017