

**THE EFFECT OF INTEREST RATES CAPPING ON THE PERFORMANCE
OF COMMERCIAL BANKS IN KENYA**

BY

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR AWARD OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY
OF NAIROBI**

2019

DECLARATION

This research Project is my original work and has not been presented in any examination body for any award.

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

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DEDICATION

To my dear wife, Susan Mmbone for the much-needed support and encouragement she has provided from the time I began to the end of my studies. To my lovely children Griffins, Rexine, Abrille and Johanness Shamwama for their continued concern of when I will be graduating. All I can say is to ask God to reward and bless them abundantly

ACKNOWLEDGEMENT

I thank my God the Almighty for His endless love and providing me with the much needed resources and ability to undertake this important exercise, My kind appreciation goes to my supervisor, Dr. Elly D. for his guidance, direction and support in doing this project. His continuous calls and follow ups made my research work a success. Not forgetting to thank the entire staff of Faculty of Business University of Nairobi and all my Lecturers who have significantly contributed to my knowledge base, without which I would have no foundation for the accomplishment of this research.

Lastly, I wish to express my profound gratitude to all my friends and colleagues for their encouragement during the course of my study

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LIST OF ABBREVIATIONS

CBK	Central Bank of Kenya
CBR	Central Bank Rate
NSE	Nairobi Stock Exchange

ABSTRACT

For a long time, interest rates in Kenya have been market determined without government intervention. Kenyan banks enjoyed higher interest rates as compared to the world average thereby making exorbitant profits. These profits were as a result of interest rate spreads where banks charged high loaning interest rates while paying low rates on savings. The legislature of Kenya intervened by introducing a law capping the maximum loaning interest rate at four points above the central bank rate (CBR) and a minimum savings interest rate at 70% of the CBR which got presidential assent in September, 2016. This move caused uncertainty on the effect that interest rate capping would have on the performance of commercial banks in the country. The objective of this research was to find out the effect of interest rate capping on the financial performance of commercial banks in Kenya with a specific focus on tier one commercial banks which dominate the sector with respect to advances and mobilized deposits. Descriptive research design was used to analyze the effect of interest rate capping on financial performance of the commercial banks. Eight tier one banks licensed by CBK were the sample of this study. Data for the study was obtained from published financial statements of the eight tier one commercial banks. Paired t-test model was used to establish whether there was significant change of banks financial performance 24 months before and 24 months after the interest rates capping law was enacted. The study established that after the interest rates capping law was implemented, the average quantity of loans given by banks has not significantly changed. The study also found out the average tier one banks liquidity has been on a decrease trend since the interest rates capping law regime. However, average banks revenue decreased for one quarter after the interest rates capping law became effective and then started increasing gradually. The study revealed that interest rate caps regulation had no significant effect on both quantity of loans given by banks and banks liquidity, therefore, interest rate caps regulation may not be the appropriate way of attaining the objective of financial access with lower long-term interest rates. The study recommends that the government of Kenya should review the interest rate capping law to eliminate interest rate caps and encourage market determined rates. The study also recommends further study to determine the long term effect of interest rates capping on the financial performance of other tier commercial banks.

CHAPTER ONE: INTRODUCTION

1.1 Background

Kenya boasts of a free market economy in spite of the interest rate capping law. The financial sector in Kenya developed from 1970s when there were direct controls to full advancement in the 1990s. This advancement created way for market-determined interest rates. According to Howard (2013), the government's duty to a free market economy is documented in the session paper on economic management for reestablished development. The session paper outlines the bearing the nation would follow in the wake of problematic financial results emerging from different types of controls.

Interest rates capping has been one of the common forms of government financial control that is widely used in both developed and developing countries. Several political and economic reasons motivate the use of interest rate caps, for example, to support a specific industry or sector of the economy where a market failure exists or where a greater concentration of financial resources is needed (Maimbo & Gallegos, 2014). Those market failures result from information asymmetries and the inability of financial institutions to differentiate between risky and safe clients, from adverse selection, and from moral hazard. Thus interest rate caps may be a useful mechanism for providing short-term credit to a strategic industry or for supporting a sector until it is sustainable by itself (Miller, 2013).

It is also often argued that interest rate ceilings can be justified on the basis that financial institutions are making excessive profits by charging exorbitant interest rates to clients. In implementing a cap, government is aiming to incentivize lenders to push out the supply curve and increase access to credit while bringing down lending rates. However, such thinking ignores the actions of the banks operating under asymmetric information. The imposition of a maximum price of loans magnifies the problem of adverse selection as the consumer surplus that it creates is a larger pool of willing borrowers with unidentifiable credit worthiness. Faced with this problem, lenders have three options: increase lending, which will mean lending to more bad clients and pushing up Non-Performing Loans (NPLs); increase investment in processing systems in order to better identify good clients, which will increase overheads; increase investment in outreach to clients that can be identified as having good repayment potential, which will increase overheads.

All of these options will increase costs and force the supply curve back to the left, which is detrimental to financial outreach (quantity of credit falls) (Miller, 2013).

The revised law capping interest rates in Kenya came into effect in September 2016, setting limits on deposit and lending interest rates. In August 2016, the Banking (amendment) Bill 2015 was passed and it came into effect on September 14, 2016 (CBK, 2016). It sets the highest loaning rate at four points higher than Central Bank base rate and the interest earned on deposits held in interest earning account to not less than seventy percent of The Central Bank based lending rate. In regard to the amended Banking Act, the Central Bank Rate (CBR) was set as the base rate. The parliament of Kenya passed the interest capping law to ensure that consumers are protected against high interest rates banks were charging on loans and to protect depositors against low interest rates earned on deposits (CBK circular paper 4 of 2016). According to Francis (2014), lower interest rates on loans would give credit access to Kenyans to spur economic growth and a higher interest rate on deposits would increase savings and provide much needed capital. According to Hester (2016), CBK and banks were against the interest capping law and contended it is an inefficient tool in the long run. CBK further argued that interest rate capping banks would result in limited innovation having a disastrous effect on the products the banks can offer. Minimized competition in the market due to a similar range of interest offered by all banks reduces consumer welfare.

1.1.1 Interest Rate Capping

Interest capping as one of the old forms of government control, the rate at which countries adopt the interest rate capping has been reducing around the world because most economies continue to liberalize their financial policies. Miller (2013) defines interest capping as the government setting maximum loaning interest rate and the lowest deposit interest rate. In Kenya, the interest capping law has set the highest loaning rate at 4% above the base lending rate and deposit interest rate at 70% of the base lending rate.

Miller (2013) further classifies two types of caps i.e. a flexible cap that means the interest rate is pegged to a base lending rate and can fluctuate within a range. A fixed capping means the

government sets a specific interest rate to be applied by all financial institutions in the financial market.

According to the central bank of Uganda report of 15th July 2017, the Uganda government carried out a comprehensive review of Uganda banking sector. This review established that liberation of Uganda financial market brought in foreign banks allowing more players to participate in the market. As a result of the foreign investment, the banking sector in Uganda became more dynamic and agile with high prudential standards, more efficient with high quality service and product mix. However, the government of Uganda resolved capping interest rates a bank can charge on loans would not be a solution to address high loan interest rates (Bank of Uganda report July 2017). What the government of Uganda decided to do is find a long-term solution to address money supply side constraint as well as dealing with government borrowing and relatively high cost of doing business (Hester 2016).

In 2013, Zambia introduced capping of interest rates to manage the financial market. This regulation was intended to protect consumers from high interest rates. The regulator, the Bank of Zambia, required banking institutions not to charge more than 9% above the based lending rate. According to the central bank of Zambia journal of 2015, in an effort to reduce the annual inflation, which had risen to 14.3% in October 2015, the central bank removed the caps on interest rates. This means commercial banks and microfinance institutions have no limit as to the maximum rate of interest that they can charge.

1.1.2 Bank Performance

According to Elly (2012), firms are in business to succeed. The basis of introducing interest rate capping in Kenya was that banks for many years have been returning very high profits at the expense of borrowers and savers. In absence of self-regulation, the government of Kenya intervened to protect consumers. The goal was to increase accessibility of credit to the majority of Kenyans and encourage savings. However this regulation impacts negatively because banks created a high threshold of collateral and only a few clients can obtain finances (Miller, 2013).

The performance of banks is important in that it affects the economic growth of a country. According to Miller (2013), the quantity of loans the banks lends out is a good indicator of the

economic growth especially when loans are directed to small and medium enterprises. Banks lend to the government, private sector, SME's and retail lending (Bhole, 2009). Bhole (2009) observed that as a result of interest capping, banks tend to lend more to the government and corporations leaving out SME's and retail customers due to a high risk exposure.

1.1.3 Interest Rates Capping and Performance

The Central Bank of Kenya and other banks opposed the law on the capping interest rates on grounds that such a move would have adverse impacts on the performance of banks and the economy in general. Interest cap constraints banks' freedom to set interest rates in Kenya's advanced financial system. According to Kerlantzick (2016), interest capping suppresses the growth of the economy. Studies carried out in China and Malaysia shows that the countries would have achieved a higher rate of growth without restrictions on interest rates.

Interest rate capping, undoubtedly, affects the performance of banks. Mbungue (2013) established that loaning interest rate ceiling will affect the performance of banks since interest income is the major source of banks' revenue. Mbungue (2013) further observed that the proponents of capping interest rates suggested that ceiling the interest rates could give more Kenyans access to credit thereby increasing the amount of loans given by commercial banks. With an increase in the loan amounts, the proponents forecasted no significant drop in the interest income. Despite the interest rate capping, banks have continued to report high profits (Hester, 2010). The rate of interest income against total income before and after interest rate capping will show whether banks have increased bank charges to compensate against reduced loan interest.

1.1.4 Commercial Banks in Kenya

According to Banga (2013), commercial banks are the lifeblood of an economy. Banks direct funds in the economy through allocation of deposits. Banga (2013) further noted that countries that possess advanced banking system grow faster than those with weak banking sector. Hester

(2010) explain that banks provide mechanisms for savings through deposits and thereby paying interest on deposits. Banks also effectively transfer funds from surplus units to deficit units through loans and thereby charge loans interest. This is the pivotal role of banks and a key determinant of a bank's financial performance. The residue of the deposit interest and the loan interest is banks

revenue. The tradeoff between the two determines the net interest income a bank earns. Banks are motivated to charge high loan interest and pay low deposit interest to return higher profits. Interest rate capping eliminates banks freedom in deciding what interest rate to apply (Hester, 2010).

The central bank of Kenya has licensed 42 banks and categorized them into 3 groups; tier one, tier 2 and tier 3. The classification is based on deposit accounts, customer deposits, number of loans, reserves, capital and weighted index of net assets. Tier one banks are considered safe by CBK and control above 50% of the Kenyan banking sector market share. Their individual weighted index is 5% and above. Tier one banks are KCB Bank, Equity bank, Standard bank, Co-operative bank, CFC Stanbic bank, Barclays bank, Commercial Bank of Africa and Diamond Trust bank. Tier one banks are considered the most significant and important in Kenyan financial sector.

1.2 Research Problem

Capping interest rate is one of the most established and generally recurring government intervention strategies in the financing market. Usury laws, which is at present imitated in interest rate control was practical even in antiquated Egyptian government (Hester & Benjamin, 2016). Miltons Friedman in his contention was against all type of control by government. He expressed that any type of control would cause a deficiency. Government intercession on any type of control disrupts market stability and the outcomes are not particularly unsurprising.

In Kenya, the interest rate capping law for both deposit and lending rates was passed to control banks which were reporting very high profits attributed to charging high loaning interest rates and paying low interest rates on deposits (Hester, 2016). The effect of interest rate capping on banks performance has not fully been researched in Kenya. Interest rate capping has generated a lot of debate in Kenya. IMF and World Bank are coercing Kenya government to revisit the interest rate capping law. According to the Breton woods institutions, interest rate capping law is applying brakes on the economic growth and should be repealed. The average loaning interest rate in 2015 was 19.5% and the law preset maximum rate at 4% above the CBK rate (Central Bank of Kenya, 2015). This implied the capping of the interest rate was a major blow on the bank's income. The legislature interceded in the market when it perceived the interest rates were too high and targeted growth might not be realized. Capping interest rate is seen as welfare upgrading because

Kenyans would access credit at lower rates and will have the capacity to enhance their lives inexpensively (Hester & Benjamin, 2016).

Lex Kangombe (2017) did a study on the impact of interest rate capping on the financial performance of commercial banks in Kenya; a case study of Kenya Commercial Bank. Titus Kyalo (2014) did a study on the effect of interest rates capping on the amount of credit issued by commercial banks in Kenya. There has been limited research on the effect of interest rate capping on the financial performance of tier one banks in Kenya.

The performance of banks is of key interest in any economy because a proper working financial system is a catalyst to economic development. The interest rate cap law has an impact on the loans given by banks, the liquidity of banks and the banks revenue. It is very important to find out the impact interest rate capping on the short-term and long-term performance of banks. According to Aligonby (2016), although the intent of the bill was to give credit access to Kenyans, the market reacted with a decline in the stock prices.

The foregoing research focuses on the effect interest rate capping law has had on the financial performance of commercial banks in Kenya with a specific emphasis on answering the questions:- What is the effect of interest rate capping on the quantity of loans given by banks in Kenya? What is the effect of interest rate capping on the liquidity of banks in Kenya? What is the effect of interest rate capping on revenue of banks?

1.3 Research Objective

The study sought to investigate the effect of interest rates caps on the performance of banks in Kenya.

1.3.1 Specific Objectives

Specifically, the study sought to investigate the effect of:

- (i) Interest rate Caps on the quantity of loans advanced by Commercial banks in Kenya
- (ii) Interest rate Caps on the liquidity of Commercial banks in Kenya
- (iii) Interest rate Caps on revenue of Commercial banks in Kenya

1.4 Value of the Study

The interest rate capping debate is a key one and all stakeholders in the financial markets are keenly following up. Kenya being a major player in the East African market, neighboring countries are also keenly following the debate but not grasping its impact to them. According to Harward (2013), Interest rates capping was successful in the Republic of Korea between 1956 and 1994. The findings of this study would inform the regulator, CBK, on the effect of interest rate capping on the performance of commercial banks in Kenya. Further, bank performance is very critical to a proper functioning of a financial market and a slight financial performance decline can stir up a financial crisis. These research findings are significant to the National treasury as it shows the effect of interest rate capping law on the financial performance of tier one banks. The Study recommends the measures the ministry can employ to ensure stable financial sector.

The findings from this investigation would assist the Parliament of Kenya to assess the impacts of the capping interest rates on the performance of banks. The parliament of Kenya passed the interest law as a means of welfare upgrading to Kenyans. The study plainly indicates whether the law has accomplished its principle role and if there is any need to revise it. The research has recommended other conceivable ways the legislature can intercede to ensure the bank performance is within worthy range ready to impact the economy positively.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents empirical and theoretical literature on interest rate caps and financial performance. Past investigations on the interest control and performance regimes are highlighted and the findings examined.

2.2 Theoretical Framework

This section presents a summary of the theories that underpin the foregoing study. The theories include the; Rational expectation theory, liquidity preference theory and fundable loans theory.

2.2.1 Rational expectation theory

This hypothesis was first engendered by Muth in 1965 and later advanced by Pigou, Keynes to clarify phenomena in business. The theory dictates that a future economic event can be controlled by the present circumstance (Heinz, 2012). For example, we can figure future interest rate by looking at the current one and our ambitious aspirations will at last drive them to the desired value. The marketing perceptions are still key determinants of valid outcomes, more likely in the instance of shares and bonds. Keynes (2010) alludes to this as waves of pessimism and optimism that decided level of business exercises. Members will act in a way right now due to their observation on the future and such activities will approve the result of their aspirations. Gorder (2009) in his investigation takes note of that surprising change in economic components will alter the future interest rate.

Capping interest rates rids the theory on the anticipated level of future interest rate. Although, if the banks expect the issuance of credits to specific people to be antagonistically influenced by capping of interest rates, presentation of such controls will direct banks to reexamine advances issued to risky groups (Jordanian Commercial Bank, 2014). The negativity among tier one banks on the effect of capping interest rates to their productivity, more often, makes them to start cost cutting strategies like saving, shutting down branches and diminishing measure of unsecured advances and subsequently reducing accessibility of credit in the market (Banga, 2013).

2.2.2 Theory of Liquidity Preference

Keynes introduced the theory of liquidity preference in 1890. Keynes pointed out that people consider cash for the exchange of current business and its utilization as a deposit of significant worth. Keynes featured three explanations behind holding money; the exchange intention, prudent thought process and theoretical rationale (Francis, 2014). Exchange rationale refers to where people save funds geared towards having enough cash to buy goods and services. People who are wealthy will save more funds for this purpose because their spending is more than the poor in the society.

Preparatory thought process is the cause for unexpected occasions which will require extensive money to deal with such events. Nonetheless, according to Keynes (1936), people are likely to hold cash if profit on interest is sufficiently high. Theoretical thought process on the other hand holds that cash may be held on the expectation that the share prices may go down fundamentally and open an opportunity for investment with high profits potential. Investors will not have any desire to tie up the entirety of their funds on ventures now since they speculate that better opportunities may arise in future. Craftsman and Lange (2002) noticed that while exchange intention was a steady capacity of wage, the theoretical thought process was most certainly not. The hypothesis proposes that investors request high interest rates for long haul securities since they convey riskier undertaking because investment cannot be changed into money immediately when other well remunerating venture openings are accessible. Long term investors require premium for the risk undertaken. The transient securities then again reduce interest since the forfeit for liquidity is not much as the long-term securities (Gunhild, 2002)

Interest rates capping law capped the lowest savings interest to 70% of the CBR. Banks were known to charge high interest rates on loans while paying low interest rates on saving geared towards making high profits. According to the liquidity preference theory, such higher favorable saving interest rate would cause the population to defer consumption in anticipation of making good returns in form of savings interest. As a result, savings accounts are expected to increase and the amount of deposits the banks hold too would increase. Therefore, a higher savings interest rate will tremendously increase the liquidity of banks because banks will be holding more investor's money in form of savings accounts.

According to Banga (2013), there is a cost to banks for holding a lot of cash. Banks are expected to loan out excess cash to deficit units as soon as possible to avoid cost associated with holding excess cash. According to the liquidity preference theory, increase in savings interest rate will give pressure to banks to loan funds in order to make returns and avoid costs for holding too much cash. Therefore, it is expected the amount of loans banks give would increase as result of higher savings interest rates. Again, higher amount loans have a direct impact on the revenue as a result of higher interest income.

This study was anchored on liquidity preference theory because the interest rate capping has a direct effect on the liquidity of banks, the amount of loans given by banks and subsequently the revenue earned by banks. Instances when banks see the interest rate capping as a short-run measure, they will prefer long-term credit in expectation a market driven approach will be reverted. The implication of capping on interest rates is that the cost of capital will be low thus investors are probably going to be more fluid than when the banks are allowed to determine the loaning interest rates.

2.2.3 Theory of Fundable Loans

Swedish analyst Wicksell (1851-1926) initiated the theory of fundable loans best. Different market analysts including, Lindahl, Myrdal, Ohlin, Robertson and Vinerin included the theory. The hypothesis expresses that the threshold of interest rate is dictated by the interest of creditable funds. Three components influence interest for loanable funds; hoarding, investment and disinvestment. Then again, the supply for the loanable fund is dictated by four factors, which include disinvestment, bank money, hoarding and saving. The common interest rate by the hypothesis is the trade-off between interest for and supply of cash. Hence, the demand and supply of loanable funds are equivalent (Bakaert, 2009).

However, a few researchers such as Keynes who scrutinized its presumption of total utility similar to classy business have criticized this hypothesis. The presumption that savings and fund are independent is additionally lacking. It has likewise been censured due to the presumption that interest loan is just identified with investment while the negligible productivity of capital is

additionally a factor. The hypothesis also accepts that the level of national wage stays unaltered which is unlikely since the change in venture influences the wages (Hester, 2016).

The establishment of capping interest rates will disrupt the market equilibrium of supply and demand as the capping law will stifle the overall supply of money and the banks won't have the capacity to offer funds to all entities that require them. Eventually credit rationing will occur since banks will treat the overall interest rates low for the sort of current demand. They will specifically offer loans to those people esteemed less risky and maintain a strategic distance from risky loaning

they may have been doing as the profits will be unable to cover the non-performing credits (Hester, 2016).

2.3 Determinants of Bank Performance

The decision of a bank to offer credit is influenced by its capacity and how much subsidies are accessible to the borrowers. This area will examine the factors, which impact the capacity of banks to offer credit. Funds must be accessible for them to be assigned effectively hence, deposits from client as the real influx of funds to the banks assume a major part in giving credit. High deposits positively affect the rate of development in the credit given to the private section (Imran & Nishatm, 2013). According to Olokoyo (2011), the volume of deposits in banks significantly affects the volume of bank loaning. A positive relationship is normal between this variable and level of credit in the bank.

Secondly, a high number of non-performing credits in a banking entity influences contrarily the advances being allowed. It is consequently that the non-performing advances are fundamental when deciding the interest rates charged on credits by the banks. An ascent in the extent of the non-performing debt prompts a decrease in the quality of the banking and the volume of the credit conceded (Guo & Stepanyan, 2011). It is normal that there exists a negative connection between credit accessibility and measure of non-performing loans.

Thirdly, extensive inflation rates lessen the genuine estimation of loans given, and in spite of there might being development in the credits given, inflation might diminish it. Amid inflationary occasions, banks charge high interest rates, which are probably going to decrease the need for advances. Sharma & Gounder (2012) pointed out that despite the fact that the estimation of loans issued may increase among banks it might be because of inflation and not due to an increase in the value of the credit. As such, the expected relationship between loan availability and inflation is negative.

Capping interest rates below the overall market rate diminish the spread of interest rate. Capping law that reduces interest rate will lessen the premium income among the banks. Chodechai (2004) exhorted that banks ought to be careful while deciding the interest rates on credits where the inconvenience of low rates will influence the profits accomplished by the bank, which ought to be

adequate to take care of the expense of deposits and inclusive costs. This variable will be estimated by ascertaining its quarterly midpoints for the period under investigation. It is normal that capping interest rates will negatively affect the measures of advances in credit issued by the banks.

Another factor is the operation cost. Howard (2015) suggested that an increase in operational costs in the banking sector would eventually accelerate the interest rates as related efforts tend to counter the effect. Potentially, the high interest rates will drive customers away and implicate loans limit negatively. On the other hand, low interest rates will drive the demand for credits and the banking sector will be more suited to issue substantive loans limits.

2.4 Empirical Review

According to Nafar (2010), bank performance is mainly determined by the management expenses, ownership structure and bank loans. He observed that minimizing government ownership, expanding foreign capital inflow would bring-forth innovation and competitive advantage that results in superior performance. Bank managers, financial markets, as well as academic research have studied determinants of bank performance. Banks are distinguished from other institutions because their assets are mainly loans and their main liability is liquid deposits. The higher amount of loans indicates a better performance because of higher interest income. Nafar (2010) found, a positive and significant relation between bank performance and the amount of loans.

The liquidity of a bank has a significant influence on the performance of the bank. Insufficient liquidity is a major cause of bank crisis. On the other hand, when a bank keeps excess liquid assets it loses on getting higher returns from investing in those assets. Lower liquidity ration might force a bank borrow at interbank market at high interest rates. Moly (2002) found out bank performance and liquidity can be positively or negatively related. For instance, a reduction of amount of loans by a commercial bank will result in higher liquid assets thereby the bank foregoing interest that would be earned if the funds were loaned out. Despite the reduction of loans, tier one banks have continued to report high profits.

Ownership also has an impact on the performance of a bank. According to Nafour (2010), a relationship between bank performance and ownership exists. Private owned institutions are

expected to perform higher compared with public institutions, which do not always aim at profit maximization.

Event examination can be said to be a statistical method testing the effect of action or information on the value of a firm (Chuck, Kwok & Brooks 2013). According to Beigi (2013), the impact of new regulations can be estimated empirically using event study. In efficient market hypothesis, security prices are assumed to reflect in full available information and adjust to new information instantly. Beigi (2013) further observed that the level of impact a new policy will have on an enterprise will be reflected in the change in the performance of the entity at the time the new policy was expected.

Event Study Process can be traced back to Fama, Fisher, Jensen, & Roll (1969); when they examined the speed and accuracy at which the market reacted to the announcement of a stock split. The steps they used started with the definition of the date of the event i.e. the day the market will receive the news, and then returns of the individual entity are characterized by the absence of the impending news. The difference between the observed returns and the no-news returns is measured for each firm, and the next step is to aggregate the abnormal returns across time and firms. Finally, the aggregated returns are tested to determine if the abnormal returns are significant and if yes then for how long (Sandler & Sandler, 2014). The event must be defined, and the time it took place determined. It is pertinent to understand that the timing of an event is not easy even though it might seem obvious. Fama (1969), focused on the time the market anticipated the news and not when the event happened. Characteristics of normal Returns for two periods were identified during, before and after the event.

2.5 Conceptual Framework

Figure 2.1 below shows the conceptual framework diagram for the foregoing study. As shown in the diagram, the event is introduction of bank interest rate capping, the bank performance prior and post the introduction of interest rate capping are indicators that include; Amounts of loans, bank liquidity and Bank revenues. The study compares the pre and post-performance of the banks given the introduction of interest rate capping.

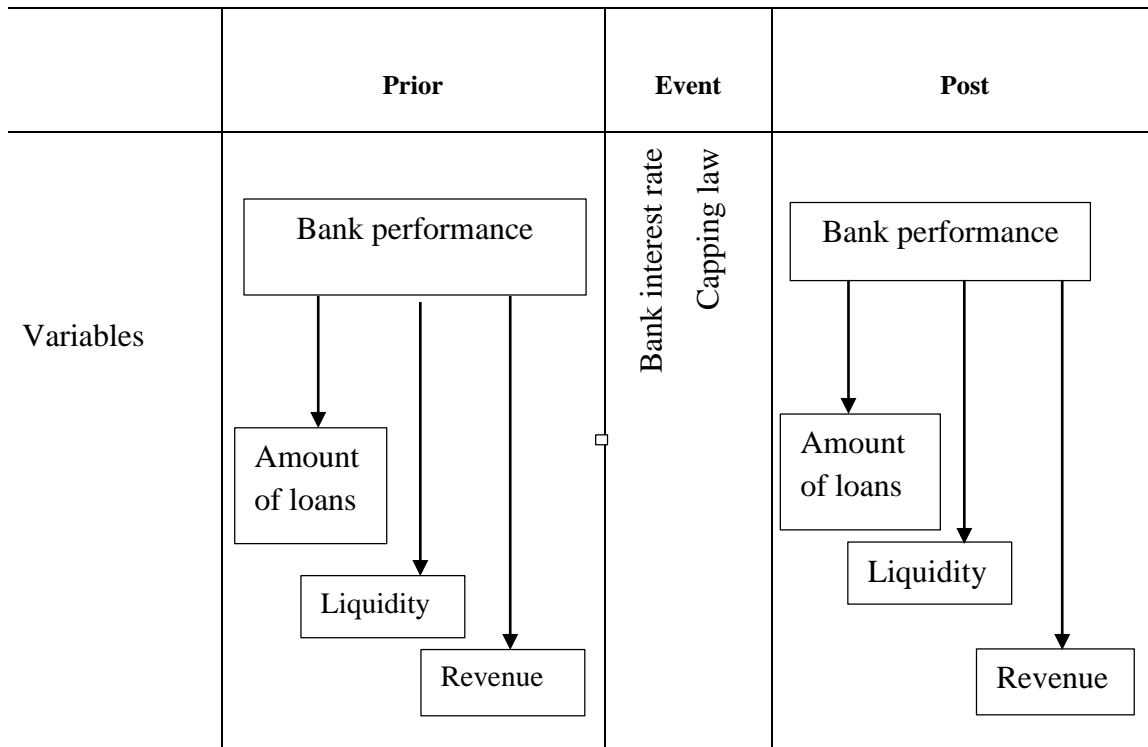


Figure 2.1: Conceptual Framework Diagram

2.6 Summary of Literature Review

Theories give a broad view of the relationship between interest rate capping and the financial performance of tier one banks in Kenya. Whereas the conceptual framework indicates how the bank performance being the dependent variable relates to the specific measures of bank performance. The performance was measured for 24 months before the interest capping law and 24 months after the law was effected. The measures were as follows; Amount of loans: Average loans and advances to customers by tier one banks 24 months before and 24 months after the interest rate capping law. Liquidity; Average total of cash, deposits and balances due from other financial institutions 24 months before the 24 months after the interest capping law. Revenue; Total interest and non-interest revenues 24 months before and 24 months after the interest rate capping law

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section covers the research plan, the population, collection of data and analysis methods used. Trochim (2005) pointed out that research methodology gives the paste that holds an examination venture together. He attempts to underline the significance of the research outline and how vital it is in thinking of the findings and arrangements being looked for in the study.

3.2 Research design

Coopers & Schindler (2008) characterized research design as a structured plan of examination so considered to acquire answers to the research questions. Descriptive research design was utilized in this research. The design was used to gather and examine information to give a record of facts or circumstances (Mugenda, 2013). With the outline, it was conceivable to precisely foresee the connection between interest rates capping and the performance of banks in Kenya. The research sought to find out the effect of interest rate capping on the performance of commercial banks in Kenya

3.3 Population and Sampling

According to Coopers (2008), a research population is the aggregate accumulation of components, which a researcher desires to make inductions for the research. The study focused on all the 42 commercial banks in Kenya attached as Appendix one. Due to the market share of the tier one banks, the study sampled 8 commercial banks in the Tier one segment considered market leaders in amounts of deposits mobilized and loans advanced.

3.4 Data Collection

Information as depicted on the financial statements was utilized to study the effect of interest rate capping on the financial performance of commercial banks in Kenya. The examination for the most part concentrated on the changes of the performance of commercial banks as they appear in their financial statements. Secondary data on Return on Assets, Revenue and Non-interest income were collected from the respective banks financial statements. Periodic Amount of loans and liquidity for the respective banks were collected from the specific banks.

3.5 Data Analysis

The data analysis utilized descriptive research and took a quantitative format. Tables were used to completely analyze the data. Interest rates capping was considered as an event hence event study methodology was used. The occasion date (September, 2016) was the point at which the capping of interest rates became effective and is indicated by $t=0$. The performance changes for every commercial bank as appears in their financial statements for 24 months prior and 24 months after interest rates capping was grouped and analyzed.

3.5.1 Descriptive Statistics

Tables were used to depict statistical summaries of the maximum, minimum, mean and standard deviation of banks performance prior and after interest rates capping for 24 months. Statistical comparisons for the two periods, pre and post interest capping, shows whether performance by the commercial banks improved or declined due to the capping of interest rates.

3.5.2 Analytical Model

T-test entails analysis of the pair population means using statistics examinations. This approach prompted the study to determine if performance by commercial banks significantly changes after the capping of the interest rates.

The null hypothesis was that the mean difference between pre and post interest rate capping is zero
The alternative hypothesis was that the mean difference between pre and post interest rate capping is not Zero.

The level of significance was 5%

T statistic was computed as follows:

$$t = \frac{X_1 - X_2}{\sqrt{S_1/N_1 + S_2/N_2}}$$

The t-measurement results demonstrated whether capping of interest rates does or does not altogether impact how the commercial banks perform.

3.5.3 Operationalization of Study Variables

Variable	Measure	Indicator	Computation
Performance	Absolute Measure	Amount of Loans	Quarterly Absolute Measures
		Liquidity	
		Revenue	

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this section, the data obtained from the tier one commercial banks is analyzed and conclusions presented. The study aimed at finding out the effect of interest rates capping law on the performance of tier one banks in Kenya. Banks performance for 24 months prior and 24 months after the interest capping law was extracted from published financial statements. The data thereafter was analyzed based on the objectives of the study.

4.2 Diagnostic tests

The study performed normality and multicollinearity tests on the data collected

4.2.1 Normality test

Normality was tested using the Skewedness and Kurtosis, Kurtosis was used to measure the peakedness of the data in the study relative to normal distribution. According to Trochim 2006, the kurtosis of -2 to +2 indicates the existence of normal distribution.

Table 4.1 Normality Test

Descriptive Statistics				
	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Loan	.852	.794	-.146	1.587
Liquidity	-.942	.794	-.855	1.587
Revenue	.620	.794	-.710	1.587

From the finding in table 4.1 the Kurtosis of all variables were in between -2 to +2; Loan (-0.146), Liquidity (-0.855) and Revenue (-0.710). With these results, the study concluded that Sample follows a Normal distribution.

4.2.2 Multicollinearity

Multicollinearity was tested by computing the Variance Inflation Factor (VIF). Multicollinearity occurs where the independent variables in a model are highly inter-correlated. Variances of a parameter estimates may be inflated where multicollinearity occurs. This may lead to lack of statistical significance of each independent variable even though the total model may be significant. To test for multicollinearity, the study examined the correlation matrix by using Variance Inflation Factor (VIF) as shown in Table 4.2 below.

Table 4.2 Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-413314.702	522201.601		-.791	.473		
	Bank Loan	.021	.002	.797	8.671	.001	.583	1.715
	Bank Liquidity	.065	.022	.267	2.903	.044	.583	1.715

The Variance Inflation Factor (VIF) shows the level of multicollinearity in a model. VIF's greater than 10 reflects multicollinearity; the higher the value of VIF's, the more severe the problem. Results show that all the variables had variance inflation factors (VIF) of less than 10: amount of Loans given by Banks (1.715) and bank liquidity (1.715). This implies that there was no collinearity with the variables thus all the variables were maintained in the model.

4.4 Descriptive Statistics

The study carried out a descriptive analysis to establish the change of performance of banks before and after the interest rates capping. The research targeted tier one banks in Kenya. There are eight tier one banks licensed by the central bank of Kenya. The study analyzed data from 7 banks which

is 87.5% of the targeted population. According to Mugenda and mugenda (2003), “50% response rate is adequate, 60% is good and 70% is very good.” The quantity of loans given by banks, liquidity of banks and the revenue of the banks before and after interest rate capping was analyzed and the findings are discussed below.

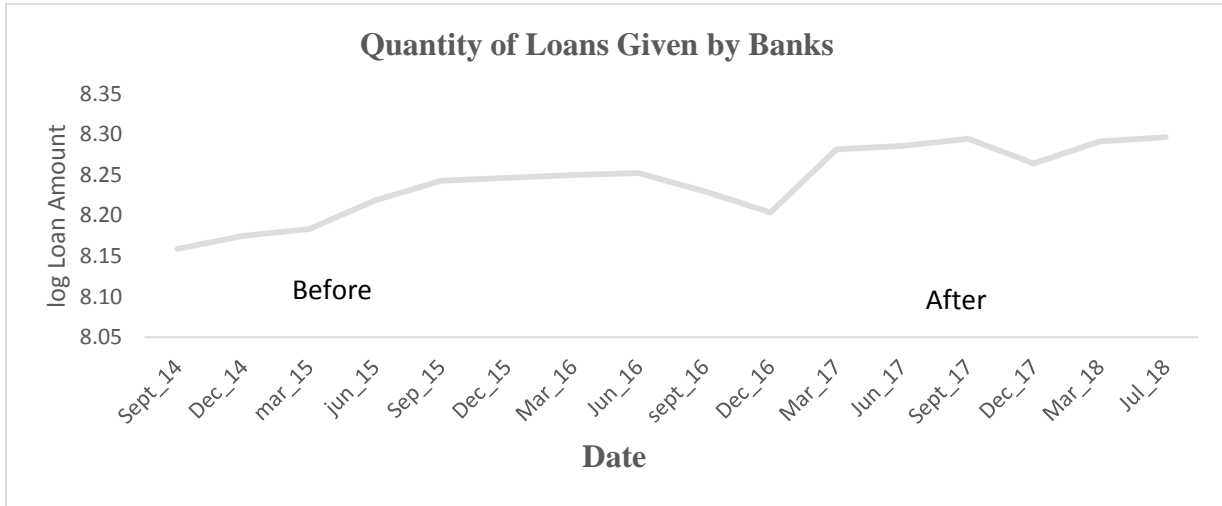


Figure 4.1 Quantity of Loans Given by Banks

Findings in figure 4.1 shows that the average quantity of loans given by banks before the interest rates capping was in an increasing trend, however between June and December 2016 during the implementation of interest rates capping the average quantity of loans given by banks went down. The depressed amount of loans lasted from June 2016 to March 2017. From March 2017, the amount of loans given by tier one banks has on average stagnated.

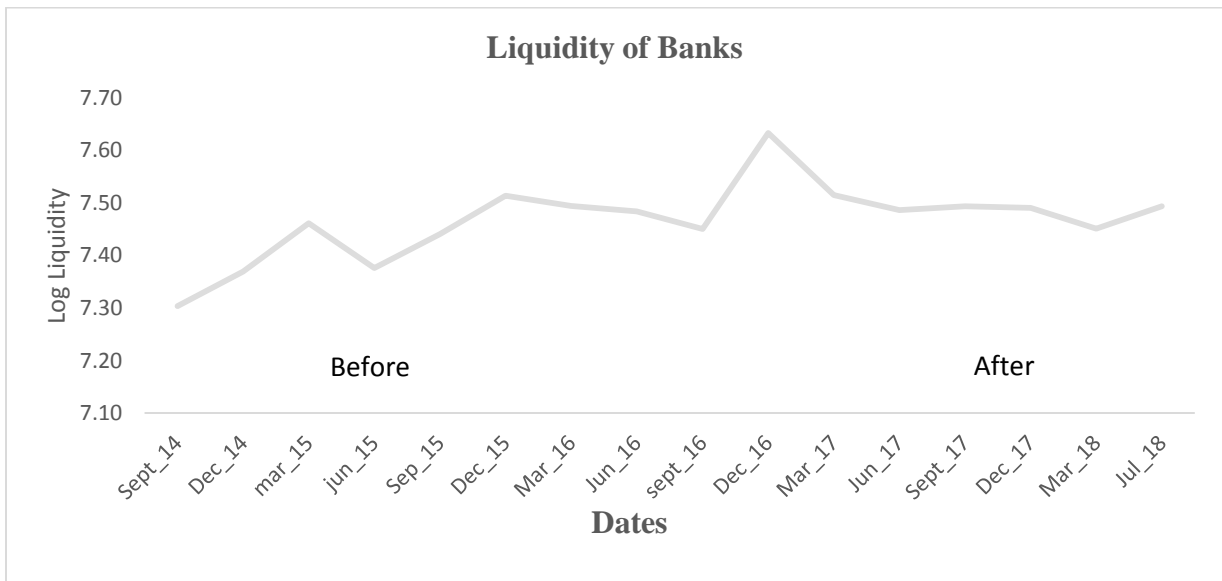


Figure 4.2 Liquidity of Banks

The findings in figure 4.2 shows that the average banks liquidity before the interest rates capping was in an increasing trend with the highest average liquidity recorded in December 2016. However, after December 2016, banks liquidity has been on a decreasing trend.

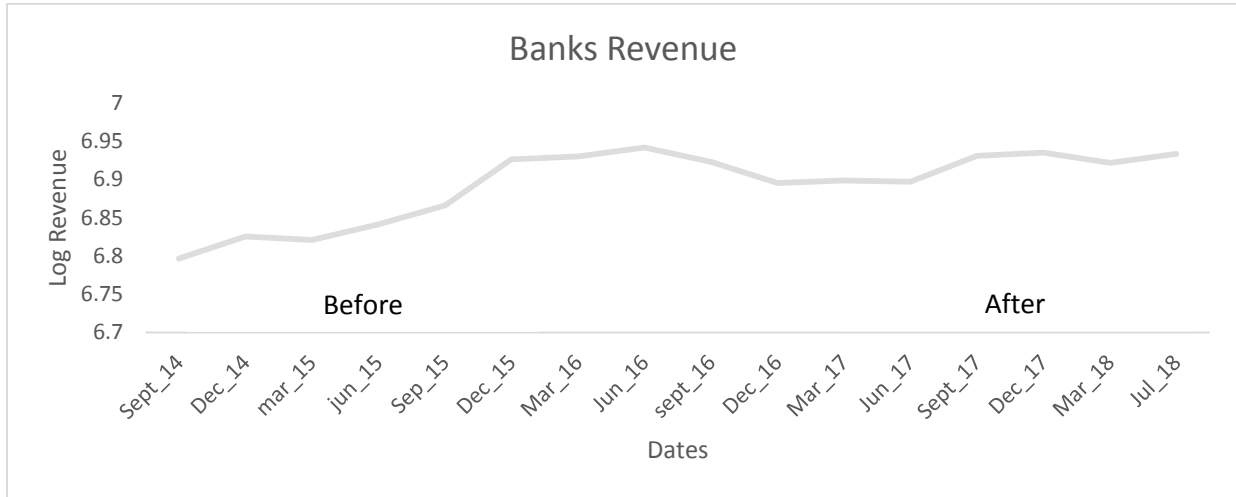


Figure 4.3 Revenue of Banks

Figure 4.3 results shows that the average banks revenue for two quarters before the interest rates capping law was in an increasing trend, but, after the law the banks revenue stagnated.

4.5 Pairwise T Tests

SPSS software was used in this study to run the paired t-test of significance for Quantity of Loans Given by Banks, Bank Liquidity and revenue of banks for the period before and after the interest rate capping law.

4.5.1 Quantity of Loans Given by Banks

Table 4.3 Means – Loans in KES Billions

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Loans before	8.1800	7	.17068	.06451
	Loans After	8.2329	7	.20548	.07767

Table 4.3 above indicates that the mean amount of loans for the period after the interest rate capping law implementation was 8.2329 and mean amount of loans for the period before the interest rate capping law implementation was 8.1800. This means that the average quantity of loans given by banks increased after the interest rate capping law implementation. From the study findings, the mean difference between quantity of loans given by banks before and after interest rate capping was not statistically significant ($t(6) = -1.833, p < 0.117$). This implies that the difference in quantity of loans given by banks after interest rate capping has not increased or decreased significantly. Therefore it means that interest rate capping law had no significant effect on the quantity of loans given by tier one commercial banks in Kenya.

4.5.2 Bank Liquidity

Table 4.4 Mean - Liquidity in KES Billions

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Liquidity Before	7.3957	7	.17126	.06473
	Liquidity After	7.4943	7	.14351	.05424

Table 4.4 above indicates that the mean Liquidity for the period after the interest rate capping law implementation was 7.4943 and mean for the period before the interest rate capping law implementation was 7.3957. This means that the average banks liquidity increased after the interest rate capping law. T-test results revealed that the mean difference between bank liquidity before and after interest rate capping was not statistically significant ($t(6) = -2.263, p < 0.064$). This implies that the difference in bank liquidity after interest rate capping has not increased or decreased significantly. Therefore it means that interest rate capping law had no significant effect on the liquidity of tier one commercial banks in Kenya.

4.5.3 Banks Revenue

Table 4.5 Mean - Revenue in KES Billions

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Revenue before	6.8414	7	.17334	.06552
	Revenue after	6.8886	7	.17053	.06445

Bank Revenue results in Table 4.5 above indicates that the mean for the period after the interest rate capping law implementation was 6.8886 and mean for the period before the interest rate capping law implementation was 6.8414. This means that the average revenue of banks increased after the interest rate capping law implementation. T-test results revealed that the mean difference

between average revenue of banks before and after interest rate capping was statistically significant ($t(6) = -2.645, p < 0.038$). This implies that the difference in average revenue of banks after interest rate capping increased significantly. Therefore it means that after the interest rate capping law, banks diversified the sources of their revenue from predominantly loan interest to non-Interest income sources to hedge the risks.

4.6 Discussion and Interpretation of Findings

The findings of the study shows there was no significant change in both the amount of loans given by tier one banks and banks liquidity before and after the interest rates capping law. The findings show that there was significant increase in bank revenue due to diversification to non-interest sources of revenue.

According to the rational expectation theory, banks anticipate the interest rate capping law not to be sustainable in its current form and therefore are withholding credit to risky groups. Banks in their expectation of review of the interest rates capping law, are favorably considering long-term loans at the expense of the short term loans. The optimism is to lock the long-term loans now with the hope of making profits when interest rate capping law is reviewed and interest rate caps eliminated.

The study findings presents that there was no significant change in the liquidity of banks. The savings interest rate was capped to a minimum of 70% of the CBR. According to liquidity preference theory, higher savings rate would cause deferment of consumption today with anticipation of making good returns in future. The higher savings interest rate would have enticed Kenyans to save more in their savings account with banks. Such saving would have considerably increased the amount of money held by the banks. Even with the capping of the lowest saving interest rate, banks liquidity did not significantly change. The banks diversified their sources of revenue after the interest rate capping law. The contribution of non-interest income to the total revenues of tier one banks is much higher after the interest rate capping law. According to Mbugue (2013), interest rate capping was welfare upgrading by giving Kenyans access to credit. However, higher non-interest income shows banks have increased other charges to compensate for lower interest revenue which is detrimental to the welfare of Kenyans.

According to Banga (2013), India would have reported higher economic growth rate without interest rate capping. Again, according to central bank of Zambia report of 2015, the regulator eliminated the interest rates capping in an effort to control annual inflation which had risen to 14.3%. These empirical findings are supported by this study that show interest rate capping did not improve the performance of tier one banks in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of key findings made by the study, conclusions drawn from the findings and recommendations proposed by the researcher. The conclusions and recommendations are focused on addressing the main objective of the study. This chapter further discusses suggested areas for future research.

5.2 Summary of Findings

This study sought to find out the effect of interest rates capping on the performance of commercial banks in Kenya. Bank performance is considered in terms of revenue, amounts of loans advanced and liquidity of the specific banks. Descriptive analysis indicated that the average quantity of loans given by banks before the interest rates capping was in an increasing trend, however between June and December 2016 during the implementation of interest rates capping law, the average amount of loans given by banks declined. It was also noted that after the interest rate capping law implementation, the average amount of loans given by banks increased slightly in the next two quarters, and then the trend stagnated.

For bank liquidity, the study established that the average banks liquidity before the interest rates capping law implementation was in an increasing trend, however since the interest rates capping law became effective, the banks liquidity has been on a decreasing trend. The average banks revenue six months before the interest rate capping law was on an increasing trend, however, after the interest rates capping law implementation, the bank revenue declined in the first four months. After March 2017, the average banks revenue has been on an increasing trend gradually.

The study also established that the mean difference between quantity of loans given by banks before and after interest rate capping was not statistically significant. This implies that the difference in quantity of loans given by banks after interest rate capping law implementation has not increased or decreased significantly. Therefore it means that interest rate capping has had no significant effect on the quantity of loans given by banks in Kenya.

Finally, the study also revealed that mean difference between bank liquidity before and after interest rate capping was not statistically significant. This implies that the difference in bank liquidity after interest rate capping has not increased or decreased significantly. Therefore it means that interest rate capping had no significant effect on the liquidity of banks in Kenya. However, for bank revenue, a statistically significant difference between average revenue of commercial banks before and after interest rate capping was established. This implies that the difference in average revenue of commercial banks after interest rate capping increased significantly. The study attributed this significant increase to bank diversification of revenues to non-interest sources. Therefore, as a result of the interest rate capping law, commercial banks have diversified sources of revenue to address shortfall of interest revenue.

5.3 Conclusions

This study has provided a comprehensive review on the effect of interest rates capping on the performance of commercial banks in Kenya. Based on the findings of this study, the study concluded that after the interest rates capping law, the average quantity of loans given by banks has not significantly changed. The study also concludes that the average bank liquidity has been on a decrease trend since the interest rates capping law implementation. However, average banks revenue seems to decrease for one quarter after the interest rates capping law became effective and then started increasing gradually.

The mean difference between quantity of loans given by banks before and after interest rate Capping is not statistically significant. Therefore the interest rate capping has no significant effect on the quantity of loans given by commercial banks in Kenya. Also, the mean difference between bank liquidity before and after interest rate capping was not statistically significant which means that interest rate capping implementation had no significant effect on the commercial banks liquidity in Kenya. Finally, for bank revenue, a statistically significant difference between average revenue of banks before and after interest rate capping exists hence interest rate capping law in Kenya has made banks diversify their revenue sources.

5.4 Recommendations

The study recommends the banks to innovatively identify and introduce products that yield more income to the banks as opposed to relying on the interest income alone. Relying on the interest income has seen a reduction in income received by the banks and thus lowering the return on equity. Banks should work aggressively to bring in new products that generate them non-interest income.

The study revealed that interest rate caps regulation had no significant effect on quantity of loans given by banks and banks liquidity in Kenya, therefore interest rate caps regulation is an inefficient approach to financial inclusion and improving access to financial services. The law addresses the symptoms and not the factors that have prohibited lower interest rates in the country. In order to lower the interest rates in the long-run, the government of Kenya needs to act more systemically, solving the issues in market information, crowding out of the private sector, market structure and on the money demand side and hence support market driven interest rates.

5.5 Limitations of the Study

The study considered only three independent variables namely amount of loans, liquidity and revenue affecting the performance of tier one banks in Kenya. However there are other variables that affect commercial banks performance that were not considered in this study.

Secondary data in this study was collected from the published financial statements of tier one banks. The research relied on external auditor's opinion that the financial statements give a true and fair view of the financial status of the tier one banks in Kenya.

The study considered coming into effect of the interest rate capping law as the only event. Other events in the economy that could affect performance of tier one banks in Kenya were not considered. The period of research was September 2014 to September 2018 covering 24 months before the interest rate capping law and 24 months after the law. The interest rate capping law came into effect on 16th September 2016. The period limits a study to find out the long-term effect of interest rate capping on the performance of commercial banks

5.6 Suggestions for Further Research

Further study is recommended on other factors affecting performance of commercial banks in Kenya especially the effect of interest rate capping on customer deposits and emergence of alternative technology based financial services. This research recommends a further study in future to determine the long-term effect of interest rate capping on the performance of banks. This research also proposes a further study to establish the effect of interest rate capping on the economic performance of Kenya focusing on key areas such as securities market, manufacturing, tourism and agriculture.

The finance bill of 2019, already signed into law, removed interest rate capping. This removal was intended to allow market forces to determine interest rate levels and subsequently interest rate spreads. The proposition is that with higher profitability, banks will lower the credit risk threshold resulting into more Kenyan accessing credit. This study recommends a study to find out the effect of removing interest rate capping on the performance of commercial banks in Kenya.

REFERENCES

- Banga, S. (2013). Socio-Economic Significance of Commercial Banks in India: With Special Emphasis on Public Sector Banks. *International Journal of Advanced Research in Management and Social Sciences*,
- Bekaert, G., Harvey, C. R. and Lundblad, C. (2001) . “Does financial liberalization spur growth?” NBER Working Paper 8245, National Bureau of Economic Research, Cambridge, MA.
- Deepeka K.J. (2017), “Economies of scope and the scope of the enterprise”, *Journal of Economic Behavior & Organization*, Vol. 1 No. 3, pp. 223-47.
- Francis M. M. (2014). Financial regulation in Kenya: Balancing inclusive growth with financial stability. *Working paper 407 odi.org*
- Fidane, S.(2016). Analysis of the main theories of interest rate. *International Journal of Economics, Commerce and Management*
- Gunhild, B., Michael, F., Ravindra, R., Edoardo, T. &Smita, W. (2015). Bank Financing of SMEs in Kenya. *Finaccess Business-Supply*
- Happy M, Gerhard C. and William G, (2002). The effects of the interest rate ceilings on the micro lending market in South Africa. *University of Pretoria*.
- Heinz, P. S. (2001). On the theory of interest rate policy. *BNL Quarterly Review*, no. 219.
- Hester, P.& Benjamin, K. (2016). Reframing financial regulation: Enhancing stability and Protecting Consumers. Arlington, VA: Mercatus Center at George Mason University, 2016.
- Hikina, W. (2013). Briefing for commerce committee on credit contracts and financial Services law reform bill: *Cost of Finance caps*
- Howell, N. (2009) National consumer credit laws, financial exclusion and interest rate caps: *The case for diversity within a centralized framework*.
- Howell, N., Therese, W.& James, D. (2008). Interest rate caps: Protection or paternalism. *Griffith University, Centre for Credit and Consumer Law*.
- Levine, R. (1997). Financial development and Economic Growth: Views and agenda. *Journal of Economic Literature*
- Levine, R. & King, R. G. (1992). “Financial indicators and growth in a cross section of Countries,” World Bank working paper No. 819, 1992a
- Mbengue, D. M. 2013. “The worrying trend of interest rate caps in Africa.” CGAP

blog.

Mugenda, O. M. & Mugenda, A.G. (2008). *Research Methods*. Nairobi, African Centre for Technology Studies Press.

Mwafag, R. (2015). Factors affecting the bank credit: An empirical study on the Jordanian commercial Banks. *International journal of economics and finance*

Naifar, N. (2010) 'The determinants of bank performance: an analysis of theory and practice in the case of an emerging market', *Int. J. Business Environment, Vol. 3, No. 4, pp.460–470*.

Ngwatu, M. (2014). The effect of interest rate on borrowers' uptake of credit facilities in commercial banks in Kenya. *Unpublished MSC Project*. University of Nairobi.

Ochieng' D.E, (2012), "Executive compensation and firm financial performance", *Database of African theses and dissertations including research, University of Nairobi*

Olokoyo, O. (2011). Determinants of commercial banks' lending behavior in Nigeria. *International journal of financial research*

Ritter, T. and Gemu'nden, H.G. (2007), "The impact of a company's business strategy on its technological competence, network competence and innovation success", *Journal of Business Research, Vol. 57, pp. 548-56,236-50*.

Srivastava, R.K., Fahey, L. and Christensen, H.K. (2007), "The resource based view and marketing: the role of market-based assets in gaining a competitive advantage", *Journal of Management, Vol. 27, pp. 777-802*.

APPENDICES

APPENDIX I: LIST OF COMMERCIAL BANKS IN KENYA

	Bank Name	Size (Large/medium/small)
1.	Africa Banking Corporation Ltd	Small
2.	Bank of Africa Kenya Ltd	Medium
3.	Bank of Baroda (k) Ltd	Medium
4.	Bank of India	Medium
5.	Barclays Bank of Kenya Ltd	Large
6.	CFC Stanbic Bank Ltd	Large
7.	SBM Bank (Formally Chase Bank (K) Ltd	Medium
8.	Citibank N. A Kenya	Medium
9.	Commercial Bank of Africa Ltd	Medium
10.	Consolidated Bank of Kenya Ltd	Small
11.	Co-operative Bank of Kenya Ltd	Large
12.	Credit Bank Ltd	Small
13.	Diamond Trust Kenya Ltd	Medium
14.	Dubai Bank Kenya Ltd	Small
15.	Ecobank Kenya Ltd	Medium
16.	Equatorial Commercial Bank Ltd	Small
17.	Equity Bank Ltd	Large
18.	Fidelity Commercial Bank Ltd	Small
19.	Fina Bank Ltd	Small
20.	Giro Commercial Bank Ltd	Small
21.	Guardian Bank Ltd	Medium
22.	Habib Bank A.G Zurich	Small
23.	Habib Bank Ltd	Small
24.	Imperial Bank Ltd	Medium
25.	I & M Bank Ltd	Medium
26.	Kenya Commercial Bank Ltd	Large
27.	K-Rep Bank Ltd	Small
28.	Middle East Bank (K) Ltd	Small
29.	National Bank Of Kenya Ltd	Medium
30.	NIC Bank Ltd	Medium
31.	Oriental Commercial Bank Ltd	Small
32.	Paramount Universal Bank Ltd	Small
33.	Prime Bank Ltd	Medium
34.	Standard Chartered Bank Kenya Ltd	Large
35.	Trans- National Bank Ltd	Small
36.	Victoria Commercial Bank Ltd	Small
37.	Family bank Ltd	Medium
38.	Ecobank Ltd	Medium
39.	Gulf Africa Bank Ltd	Small
40.	Jamii Bora Bank Ltd	Small
41.	First Community Bank Ltd	Small
42.	UBA Kenya Bank Ltd	Small

Central Bank of Kenya Website

APPENDIX II: DATA COLLECTION INSTRUMENT

Name of Bank.....

Month	-24	-23	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	
Amount of Loans																										
Liquidity																										
Revenue																										
Non-Interest Income																										

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Amount of Loans																										
Liquidity																										
Revenue																										
Non-Interest Income																										

APPENDIX III: ANALYZED DATA

		Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15
		Millions	Millions	Millions	Millions	Millions	Millions
			7	6	5	4	3
1.	Amount of loans						
	KCB	231,654,020.00	248,823,710.00	262,311,085.00	283,200,200.00	309,091,297.00	312,079,984.00
	BARCLAYS	126,257,900.00	125,423,371.00	125,295,377.00	133,554,804.00	138,997,894.00	145,378,553.00
	STANDARD	125,392,306.00	122,749,233.00	114,060,421.00	123,256,075.00	126,513,732.00	115,125,427.00
	COOPERATIVE	175,702,704.00	178,978,586.00	183,139,637.00	203,407,985.00	210,607,227.00	208,074,513.00
	EQUITY	183,167,801.00	187,976,229.00	195,503,777.00	205,249,347.00	215,695,120.00	225,036,662.00
	CBA	83,415,849.00	89,362,297.00	86,742,770.00	96,742,664.00	102,179,626.00	103,519,861.00
	DIAMOND TRUST	83,915,828.00	94,059,260.00	100,166,147.00	113,242,826.00	121,399,734.00	125,817,859.00
	CFC STANBIC						
		1,009,506,408.00	1,047,372,686.00	1,067,219,214.00	1,158,653,901.00	1,224,484,630.00	1,235,032,859.00
2.	Liquidity						
	KCB	18,889,965.00	22,457,369.00	25,242,120.00	25,921,067.00	44,102,086.00	57,179,375.00
	BARCLAYS	18,655,320.00	25,774,151.00	19,400,221.00	20,135,901.00	18,897,662.00	18,433,362.00
	STANDARD	17,611,444.00	20,280,171.00	30,203,783.00	17,386,713.00	18,528,053.00	17,431,496.00
	COOPERATIVE	31,279,039.00	35,739,794.00	51,724,455.00	37,057,216.00	44,012,972.00	41,042,918.00
	EQUITY	29,555,702.00	23,529,583.00	40,466,388.00	38,089,858.00	36,790,243.00	47,261,696.00
	CBA	14,075,863.00	20,827,704.00	20,264,332.00	16,158,794.00	17,307,331.00	27,605,511.00
	DIAMOND TRUST	10,710,528.00	15,171,316.00	15,032,869.00	11,715,552.00	13,368,090.00	19,551,882.00
	CFC STANBIC						
		140,777,861.00	163,780,088.00	202,334,168.00	166,465,101.00	193,006,437.00	228,506,240.00
3.	Revenue						
	Interest						
	KCB	10,297,032.00	10,950,604.00	10,634,626.00	11,890,073.00	11,987,872.00	14,200,626.00
	BARCLAYS	5,922,481.00	5,921,736.00	6,133,919.00	6,032,446.00	6,374,854.00	6,744,781.00
	STANDARD	5,564,356.00	5,640,783.00	5,452,376.00	5,339,501.00	5,840,965.00	6,244,243.00
	COOPERATIVE	7,180,624.00	8,464,374.00	8,125,828.00	8,453,406.00	9,187,941.00	10,752,283.00
	EQUITY	7,852,694.00	8,371,782.00	8,261,558.00	8,648,202.00	9,267,600.00	11,094,447.00
	CBA	3,417,129.00	3,629,195.00	3,880,538.00	3,978,073.00	4,104,890.00	4,758,373.00
	DIAMOND TRUST	3,587,710.00	3,880,906.00	3,860,686.00	4,222,579.00	4,675,664.00	5,274,248.00
	CFC STANBIC						
	SUB TOTAL	43,822,026.00	46,859,380.00	46,349,531.00	48,564,280.00	51,439,786.00	59,069,001.00
	Non Interest						
	KCB	5,096,174.00	3,790,381.00	10,634,626.00	4,184,341.00	4,046,861.00	3,631,154.00
	BARCLAYS	2,238,197.00	2,186,436.00	2,226,592.00	2,555,419.00	1,736,445.00	2,532,544.00
	STANDARD	1,447,356.00	1,701,012.00	1,363,237.00	1,949,610.00	1,825,339.00	1,869,542.00
	COOPERATIVE	2,033,590.00	2,392,208.00	2,544,674.00	2,649,404.00	2,808,386.00	3,070,974.00
	EQUITY	3,637,103.00	5,015,362.00	4,007,693.00	3,754,565.00	3,588,374.00	3,879,561.00
	CBA	926,085.00	1,211,592.00	1,258,387.00	1,472,498.00	1,872,841.00	2,130,396.00
	DIAMOND TRUST	577,201.00	505,431.00	681,809.00	650,974.00	462,308.00	824,548.00
	CFC STANBIC						
	SUB TOTAL	15,955,706.00	16,802,422.00	22,717,018.00	17,216,811.00	16,340,554.00	17,938,719.00
	TOTAL REVENUE	59,777,732.00	63,661,802.00	69,066,549.00	65,781,091.00	67,780,340.00	77,007,720.00

		Mar-16	Jul-16	Sep-16	Dec-16	Mar-17	Jun-17
		Millions	Millions	Millions	Millions	Millions	Millions
		2	1		1	2	3
1.	Amount of loans						
	KCB	313,053,740.00	315,326,989.00	332,283,047.00	353,900,051.00	362,922,411.00	373,809,144.00
	BARCLAYS	152,442,482.00	153,304,211.00	158,843,058.00	168,509,529.00	168,701,793.00	163,782,554.00
	STANDARD	109,787,058.00	114,265,013.00	120,761,020.00	122,711,038.00	116,875,407.00	113,040,256.00
	COOPERATIVE	213,234,193.00	220,425,621.00	226,468,224.00	236,398,405.00	245,288,658.00	251,722,643.00
	EQUITY	229,474,440.00	222,350,434.00	221,067,274.00	213,805,548.00	208,356,659.00	207,490,076.00
	CBA	98,957,882.00	97,319,291.00	96,871,429.00	100,314,461.00	98,728,990.00	102,066,307.00
	DIAMOND TRUST	128,167,235.00	128,364,328.00	132,492,295.00	136,685,924.00	137,695,168.00	140,698,717.00
	CFC STANBIC						
		1,245,117,030.00	1,251,355,887.00	1,288,786,347.00	1,332,324,956.00	1,338,569,086.00	1,352,609,697.00
2.	Liquidity						
	KCB	59,869,200.00	45,874,012.00	32,331,766.00	32,234,927.00	34,958,533.00	34,349,325.00
	BARCLAYS	16,802,797.00	25,105,321.00	18,113,913.00	13,596,574.00	20,918,006.00	27,462,547.00
	STANDARD	29,534,225.00	18,308,218.00	22,187,444.00	125,443,589.00	22,349,497.00	23,525,080.00
	COOPERATIVE	34,648,620.00	33,083,401.00	33,011,488.00	29,817,613.00	42,016,751.00	30,811,451.00
	EQUITY	36,761,833.00	44,535,222.00	41,506,549.00	42,145,890.00	48,521,503.00	50,833,465.00
	CBA	23,667,260.00	29,572,106.00	32,789,938.00	39,671,796.00	41,383,254.00	29,112,441.00
	DIAMOND TRUST	16,952,041.00	16,817,037.00	10,146,175.00	17,755,385.00	19,018,756.00	18,185,820.00
	CFC STANBIC						
		218,235,976.00	213,295,317.00	190,087,273.00	300,665,774.00	229,166,300.00	214,280,129.00
3.	Revenue						
	Interest						
	KCB	14,389,933.00	14,425,604.00	14,872,665.00	12,490,982.00	14,389,933.00	12,784,279.00
	BARCLAYS	6,742,231.00	7,161,226.00	7,202,037.00	7,015,695.00	6,402,215.00	6,734,598.00
	STANDARD	6,402,508.00	6,633,695.00	6,650,883.00	6,071,812.00	6,328,645.00	6,391,361.00
	COOPERATIVE	10,625,368.00	10,765,388.00	10,827,094.00	9,878,269.00	9,480,380.00	9,689,781.00
	EQUITY	10,733,448.00	11,339,285.00	11,506,909.00	9,492,908.00	8,973,574.00	9,079,704.00
	CBA	4,759,657.00	4,570,720.00	4,553,242.00	4,036,528.00	3,913,792.00	4,202,840.00
	DIAMOND TRUST	5,914,908.00	6,315,352.00	6,552,587.00	6,021,092.00	5,949,155.00	6,321,934.00
	CFC STANBIC						
	SUB TOTAL	59,568,053.00	61,211,270.00	62,165,417.00	55,007,286.00	55,437,694.00	55,204,497.00
	Non Interest						
	KCB	3,343,827.00	3,891,721.00	3,180,487.00	4,843,826.00	3,343,827.00	4,561,529.00
	BARCLAYS	6,742,231.00	2,567,634.00	2,443,441.00	1,275,681.00	2,196,269.00	1,916,952.00
	STANDARD	2,207,807.00	2,060,094.00	1,843,461.00	1,849,104.00	1,957,852.00	2,001,861.00
	COOPERATIVE	3,155,886.00	3,108,637.00	2,767,497.00	2,610,303.00	3,101,214.00	3,371,531.00
	EQUITY	3,464,207.00	3,641,512.00	3,731,225.00	4,427,151.00	4,378,426.00	4,820,141.00
	CBA	1,971,385.00	2,427,427.00	2,233,271.00	2,527,488.00	2,323,190.00	2,570,385.00
	DIAMOND TRUST	665,136.00	905,874.00	675,829.00	830,440.00	752,058.00	816,098.00
	CFC STANBIC						
	SUB TOTAL	21,550,479.00	18,602,899.00	16,875,211.00	18,363,993.00	18,052,836.00	20,058,497.00
	TOTAL REVENUE	81,118,532.00	79,814,169.00	79,040,628.00	73,371,279.00	73,490,530.00	75,262,994.00

		Sep-17	Dec-17	Mar-18	Jul-18
		Millions	Millions	Millions	Millions
		4	5	6	7
1.	Amount of loans				
	KCB	384,993,249.00	387,942,858.00	383,875,385.00	386,578,198.00
	BARCLAYS	167,249,182.00	168,397,417.00	165,397,417.00	176,115,166.00
	STANDARD	114,241,248.00	126,294,470.00	113,847,613.00	111,748,653.00
	COOPERATIVE	258,142,389.00	252,361,773.00	251,218,576.00	249,279,734.00
	EQUITY	206,157,734.00	214,484,733.00	206,862,953.00	207,144,231.00
	CBA	101,070,203.00	101,409,798.00	98,788,998.00	101,851,443.00
	DIAMOND TRUST	147,397,572.00	148,515,793.00	149,100,604.00	153,055,987.00
	CFC STANBIC				
		1,379,251,577.00	1,399,406,842.00	1,369,091,546.00	1,385,773,412.00
2.	Liquidity				
	KCB	44,956,870.00	39,094,251.00	35,574,060.00	55,891,806.00
	BARCLAYS	22,234,468.00	18,172,353.00	17,402,246.00	25,604,164.00
	STANDARD	18,082,489.00	18,667,456.00	21,277,273.00	26,674,707.00
	COOPERATIVE	33,823,116.00	30,281,332.00	37,232,399.00	33,617,067.00
	EQUITY	44,230,518.00	48,517,703.00	29,503,972.00	31,120,709.00
	CBA	35,168,051.00	43,826,477.00	37,003,257.00	31,495,453.00
	DIAMOND TRUST	19,654,187.00	17,960,660.00	19,805,031.00	13,787,303.00
	CFC STANBIC				
		218,149,699.00	216,520,232.00	197,798,238.00	218,191,209.00
3.	Revenue				
	Interest				
	KCB	14,642,262.00	15,127,687.00	14,034,503.00	14,825,030.00
	BARCLAYS	6,975,816.00	7,053,544.00	6,919,915.00	7,214,231.00
	STANDARD	6,659,313.00	6,843,204.00	6,804,932.00	6,902,394.00
	COOPERATIVE	10,526,834.00	10,396,674.00	10,287,296.00	10,285,027.00
	EQUITY	9,799,386.00	9,942,999.00	9,666,846.00	9,666,203.00
	CBA	4,327,808.00	4,335,782.00	4,185,595.00	4,229,185.00
	DIAMOND TRUST	6,783,321.00	6,578,983.00	6,531,634.00	6,904,757.00
	CFC STANBIC				
	SUB TOTAL	59,714,740.00	60,278,873.00	58,430,721.00	60,026,827.00
	Non Interest				
	KCB	4,336,834.00	4,644,099.00	4,155,508.00	4,254,654.00
	BARCLAYS	940,833.00	2,952,825.00	2,088,751.00	2,335,615.00
	STANDARD	1,944,937.00	2,128,456.00	2,009,949.00	2,245,572.00
	COOPERATIVE	2,688,801.00	2,933,617.00	3,138,560.00	3,085,224.00
	EQUITY	4,713,906.00	4,552,778.00	4,373,114.00	4,208,463.00
	CBA	2,348,099.00	2,275,100.00	2,364,039.00	2,393,598.00
	DIAMOND TRUST	769,530.00	828,659.00	763,801.00	879,706.00
	CFC STANBIC				
	SUB TOTAL	17,742,940.00	20,315,534.00	18,893,722.00	19,402,832.00
	TOTAL REVENUE	77,457,680.00	80,594,407.00	77,324,443.00	79,429,659.00