

**EFFECT OF INTEREST RATE CAPPING ON FINANCIAL PERFORMANCE OF
LISTED COMMERCIAL BANKS IN KENYA**

BY


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DECLARATION

This research project is my own original work and has never been presented for any other academic qualification, in any other university.

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I am thankful to all my family members for their untiring resolve and unfathomable support over the entire period of my graduate studies.

May the Lord ceaselessly illuminate your path.

DEDICATION

I dedicate this project to my Lord and savior, Jesus Christ. In the potter's hand, he makes something out of nothing. Thank you father for your faithfulness, grace and mercy.

To my great and precious family. I love you! To my wonderful kids Laura and Emmanuel, you bring me more joy than I could have ever hoped for! Being your mum is my greatest reward.

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LIST OF ABBREVIATIONS

BOD:	Board of Directors
CBK:	Central Bank of Kenya
CBR:	Credit Bureau Report
CEO:	Chief Executive Director
CG:	Corporate Governance
CMA:	Capital Market Authority
IRC:	Interest Rate Capping
KNBS:	Kenya National Bureau of Statistics
NPLs:	Non-Performing Loans
NSE:	Nairobi Securities Exchange
ROA:	Return on Asset
ROE:	Return on Equity
SMEs:	Small and Medium Enterprise
SPSS:	Statistical Package for Social Sciences

ABSTRACT

This study was focused in determining the impact of interest rates caps had on financial performance of listed commercial banks in Kenya. The key measure adopted was the return on investment of the listed banks, and was complemented by incorporation of amounts of customer deposits and also the non-performing loans to have a wider look at the potential effects of the capping on the banking industry. The study used Stata software and also an excel software for the analysis and focused on 12 quarters before capping and 12 quarters after the interest rate capping. Nominal amounts of ROI were used while for both customer deposits and non-performing loans, their growth was used. An event study methodology was used and the main analysis was based on a paired t-test of the two periods. Descriptive statistics and trend graphs were also used. The average ROI was found to decrease from 1.9% to 1.6% while its standard deviation increased from 0.0074 to 0.0079. This implied that the capping affected financial performance negatively by reducing profitability and also increasing volatility in returns. Customer deposits were also found to decrease in the rate at which they used to grow, from 4.06% to 1.53%. The volatility however decreased from 0.028 to 0.023 meaning that the growth in deposits became more predictable and stable. The growth in non-performing loans was also noted to decrease in the rate at which they used to grow, from 10.12% to 5.56%. Like customer deposits, volatility in change in non-performing loans became more stable with a decrease in its standard deviation from 0.145 to 0.047. Plotting the graphs, it was noted that ROI had been reducing long before the capping, while the nominal amounts of customer deposits and non-performing loans were growing. There was no observed changes in the direction of the growth, only the rates of change were observed. Using t-test, it was noted that none of the changes were significant as measured by the p-values at a 95% confidence interval. The study findings concur with perceptions, and support the idea of free market theory where government should not control the operations of an economy, and market forces of demand and supply should be left to play and determine equilibrium prices, including for money (interest rates). The researcher therefore notes that the removal of interest rate capping was a good idea. The findings of this study imply that, ROI for listed banks can be enhanced by letting banks price their loans as per the demand and supply for funds, and also taking measures that increase customer deposits. Considering the significance levels, it can also be noted that there many other factors that can influence ROI for commercial banks and thus further research is needed. The research would help in identifying these other factors and thus enhance knowledge on financial performance of listed banks. Future research is also required to establish why post-capping change in non-performing loans were positively correlated with ROI, while it is expected that it should influence ROI negatively as banks lose on interest. There are possibilities that performance of listed commercial banks was totally disrupted the capping.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Economically, banks make a margin by having a variant rates for lending and borrowing. Imposing some interests rates capping policy is known to lower the margins to a greater extend depending with free market rate and capped rate (Khan, & Sattar, 2014). If successful, the capping would have protected consumers from exploitation by commercial banks. Miller (2013) observed that low income and informal businesses had experienced charging of high interest rates which were not clear in during the initiation of the loan contract.

Keynesian theory states that the fall of interest rates increases demand for money for daily use and investment (Keynes, 1933). It would then imply that, capping, which reduced interest rates ought to have had effect on the financial performance (FP) of considered banks, through its effect on lending and borrowing activities. The Central Bank can manipulate interest rates to discourage or encourage lending by commercial banks, and according to Keynesian theory, borrowing and thus better bank performance would be experienced. However, free market theory argues that, in a non-controlled economy, forces of demand and supply should be the determining factor for interest rates (Friedman, 1962). This therefore implies that interest rate capping should not have happened in a free economy. Also in the liquidity preference theory, the rates of interest are thus determined by purely monetary forces, hence supports introduction of capping rate by the government (Keynes, 1936).

Currently, the interest rate capping have had to be reviewed following deliberations which cited doubt on achievement of its intended purpose. Mulwa (2017) found that banks were unable to price risk with capped interest rates and credit to borrowers had narrowed with interest rate capping introduction. Alper, Clements, Hobdari & Porcel (2019) also found that credit to private sector had dampened with capping, and banks, which rely on lending had been affected negatively. It can also be noted that, as established by Gatauwa, Kaijage, Sifunjo and Kiriti-Nganga (2017), there is a link between the capping which was introduced on interest rates and FP of banks, which tends to be negative. The income from interest rates is a key source of revenue for banks. Therefore, it is not strange to see the regulation of interest rates influencing the revenue generated by commercial banks. This explains why it is vital to weigh the impact that the introduction of interest rate capping have on how commercial banks performed financially. Comprehending the extent of the effects makes it relatively easy to come up with measures to increase revenue.

1.1.1 Interest Rate Capping

Keynes (1936) defines interest rates as the compensation for giving up the current benefit of usage of money as well as the risk borne by the lender for non-repayment of amount of money borrowed. Capping on the other hand is considered to be a policy made by the government making a ceiling rate for which commercial banks cannot change beyond. Interest capping introduction works by putting a ceiling and also a floor on rates of interests charged by commercial banks. It was implemented through enactment of a change in a law act and the floor and ceiling are based on a margin above and below the central bank rate. The capping interferes with the gains to both borrowers and lenders,

and distorts the functioning of the forces of demand and supply. For banks, it specifically the total income earned from loans advanced by banks.

Though the intention of making loans affordable was good, the capping jeopardized the conditions for a free market system. Another expected benefit would have been reduced levels of non-performing and stabilization of interest rates which was expected to increase loan portfolios. The increase in clients accessing loans was expected to boost commercial banks' financial status, according to Mbua (2020). Miller (2013) had observed that banks could experience reduced profitability in the short run, but the capping would have been very beneficial to them in the long run. He had advised that banks could diversify their financial products to become more competitive and survive to the long run. The effect of interest rates would be determined by use a t-test, which would highlight if there were differences between the variables in this study, for both the pre, and post capping period. This test would help highlight if there is a significant difference between the two periods, which could be attributed to the capping of interest rates.

1.1.2 Financial Performance

Financial performance usually denotes to a predetermined assessment of a company health on its ability to utilize its assets to make profits. From diverse perceptions, FP has been considered as a widely accepted measure of economic soundness of businesses at a given period. The firm's main objective is shareholders' wealth maximization and therefore, measurement of performance helps shareholders know how richer shareholders became by investing in a firm and can facilitate taking of corrective investment decisions (Kemboi, 2018)

Magweva and Marime (2016) assert that the FP of banks largely dictate the health of the banking industry. The industry is also affected by regulations imposed by the government and other regulatory bodies like central banks in an economy. Different measures can be used to determine performance of any firm, key ones, according to Kaplan and Norton (1992), being returns on both assets and equity. ROE is measured in terms of retained earnings divided by total equity. ROA which indicates return as a measure considers all assets in a firm, is mostly used as the key indicator of financial performance. As noted by Reese and Cool (1978), ROA is computed by dividing the net income of a business by its total assets.

1.1.3 Interest rate capping and Financial Performance

Keynes (1936) noted that low interest rates result to low deposits, which consequently lead to low levels of loanable funds. The end result, for banks, is a negative effect on their profitability as banks do not have enough funds to optimize on their lending capacity. He noted existence of a negative correlation between deposit interest rates and deposit levels. A different argument was advanced by Markowitz (1952) who observed that, taking in to account risk appetite, banks are risk avoiding entities and prioritizes a discriminative policy in lending practice to reduce their risk exposures

The effect can be either positive or negative depending on how commercial banks respond to the interest rate cap. The rate of interests on loans has a direct impact on credit uptake (Gichuki, Mwaniki, Ogolla, 2019). Banks rely on several factors like repayment period, financial stability of the lender and the state of the economy to analyze the risks associated with a particular loan. The level of risks aids in determining the interest rate to

ensure that bank is protected. High interest rate on loans discourages uptake of credit by many members of the economy (Nyakundi, 2015).

IRC and financial performance are topics of great interest since various studies carried out give no universally accepted conclusions. Many scholars who related the two variables did not form a consensus with some like Gichuki, Mwaniki and Ogolla (2019) establishing a positive influence on profitability by the capping while Ng'ang'a (2019) established a negative influence. Ngugi (2004) explains that interest impacts directly on financial performance and overall economy. Borrowing at high interest rate discourages borrowing which results negatively on the investment and through multiplier effects savings decline and this impacts negatively on bank's performance and vice versa when lenders lend money to borrowers at low interest rates. As noted by Eggertsson (2011), lower interest rates, specifically to zero, boosts the multiplier effect. It can be concluded that the rates of interest impacts positively on the FP and negatively based on the fluctuation of interest rates.

1.1.4 Listed Banks in Kenya

Under the Banking Act in Kenya, CBK is the body mandated to regulate and control the banking industry. Some banks trade online, and are listed with The Nairobi Securities Exchange. According to NSE (n.d), there are a total of 12 listed banks in the country, as at 4th September 2021. These banks have been operational for some time, thereby accumulating substantial assets worth billions of cash, they also have significant customer base. However, they face risk of falling in to financial crisis because of the changing economical, industrial and corporate factors.

The enactment of the capping law in August 2016 was meant to cushion the public from being charged high rates of interest. The banks were charging rates ranging between 19-24% per annum thus experiencing interest spreads averaging to 11.4%. These rates were at 6.6% above the world average. The law was thus enacted and implemented in September 2016 to safeguard the public from the high rates charged by banks. Banks were therefore required to have lending rates not exceeding 4% above the CBR currently at 9% and the lowest rate payable to depositors at 70% of the CBR (Muthee, 2018).

Various business environment shifts, like regulations and technology, affect commercial banks' financial performance. CBK (2017) indicate that commercial banks have already adjusted their models of business leading to a decline in financial intermediation. Commercial banks are directing their lending to the government and stable corporate borrowers thus excluding risky and small borrowers. While the banking sector seems to have accommodated these changes, competition has increased and profitability has declined (Kemboi, 2018)

1.2 Research Problem

Interest rates and their sway on performance have received some considerable research but more still needs to be done. The results of these previous researches have never reached a consensus on the possible effect, leading to some offering support while others rivaling with capping of interest rates. As noted by Aligonby (2016), protection of public interest have been the main argument for those who support IRC. They also note that small businesses can access loans cheaply and also are protected from possible exploitation by those who lend them money. The IRC is also supported by Liquidity

Preference Theory by Keynes (1936), who noted that interest rates should be products of monetary policies.

Following capping of interest rate by CBK; stakeholders in the banking sectors have been affected. Mecha (2018) linked failure in some banks in Kenya to the negative effects of IRC and fluctuations in interest rates. Commercial banks are now required to seek more innovative approaches to cover-up for the loss of interest income from loans. Few banks have made great strides to reinvent themselves and remain competitive and relevant in the banking sectors in order to survive. The unstable interests rates that have been fluctuating in nature have been the cause of commercial banks high rate of failure (CBK, 2017). According to CBK annual report (2019), a number of tier two banks merged and others being acquired by banks in tier one due to capping of interest rate. This is evident with recent acquisition of national bank by KCB group plc, while NIC bank merged with the CBA to form NCBA Bank (CBK, 2019). This research would, therefore, focus on the impact of IRC on FP for banks.

Globally, Ariyadasa *et al.*, (2017) implied that financial policies affect the profitability of commercial banks. Their findings pointed to the need for financial sector stability for better commercial banks performance. Kar and Swain (2014) indicated a direct correlation between financial performance of micro-credit firms and levels of interest rates. This means that interests rates capping is akin to capping profitability of microcredit firms.

Related studies have also been done in the region. In Uganda, loan performance, which is a function of interest rates, was found to have a significant positive impact on micro

financial institutions' profitability. Performance of the loan book is tied to many factors including the rates of interest charged which then links performance to interest rates. In South Africa, Ifeacho, and Ngalawa (2014) found that, levels of interest rates, had a significant impact on ROA which is a performance measure. Their conclusions leads to the assumption that capping interest rates have some form of effect on banks profitability which then needs determination, and specifically in Kenya which capped its interests for the first time in history.

Locally, Mecha (2018) revealed that capping the interest rates and loan portfolio advanced by commercial banks are positively related. It was noted by kiragu (2018) that a strong and significant correlation between growth of SMEs and IRC existed in Kenya. In a different study, Kiragu (2018) focused on board size, bank size, board diversity, board structure, board comitees and bank liguidity. Those found to positively influence the performance were the board and bank sizes only, with the rest having a negative effect.

With regards to discussed empirical studies, justification for the introduction of interest rate caps in Kenya is that it would increase access to loans by ensuring that commercial banks do not charge excessive interest rates for loans (Safavian & Zia, 2018). On the other hand, commercial banks have pointed out the importance of taking steps to cover all the risks of lending to different entities because they are at risk of making huge losses. This study is focused on understanding the connection between the performance of commercial banks and interest rates in Kenya. A focus on listed banks in the current study as they have good capital adequacy, proper management and adequate asset quality.

The study would therefore answer the question; what was the impact of interest rate capping on financial performance of listed banks in Kenya?

1.3 Research Objectives

The study objective was to examine the impact of interest rate capping on financial performance of commercial banks in Kenya.

1.4 Value of the Study

Policy makers can utilize the findings realized in this study in setting policies that enable easy implementation and compliance with capping regulations by commercial banks. This would give room for more borrowers to access credit and expand their businesses, which might impact positively on the economic growth.

The study builds the understanding on the contribution of IRC on the commercial bank's financial performance. Management of these banks, would appreciate the impact that capping has in enabling customers to borrow money and prevent low income earners who are perceived to be risky in accessing credit. This study would also be useful in policy making, in regulating the hidden charges that makes loans more expensive even after capping.

This research findings would also greatly contribute in theory, in educating students on the theories that support interest rate and financial performance. They will widen their understanding on other factors that affect commercial banks' FP. The results obtained in this study might be utilized by researchers as a basis for future research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter, the study concentrate on the literature so far existing in connection with the research variables under consideration. Studies so far made on the effects of IRC on the FP of firms listed in the security market were reviewed establishing the research gap for the current study. The section cover a theoretical review, a focus on other determinants of financial performance other than the interest rates capping, a literature review and a conceptual framework for the study.

2.2 Theoretical Review

A theoretical framework represents relevant theories that supports either of the variables of the study. The study concentrated on the theories that exist in the scholarly work pertaining the variables of the study either individually or in relation to each other. Some of the theories that were be considered relevant for the study included the Keynesian theory on the demand for money, free market theory of money circulation and liquidity preference theory.

2.2.1 Keynesian Theory

Keynesian theory developed by Keynesian (1933) states that the fall of interest rates leads to an increase in demand for money for daily use and investment (Keynes, 1933). In a classical model the factors that determine the equilibrium interest rate include the demand for investment and the real factors that influence the supply of saving. On the contrary, Keynesian analysis attests that only monetary factors can determine interest rates (Walsh, 2010). Keynes insists that the demand and money supply in the economy

are the key determinants of interest rates. One should not confuse the demand for commodity and the demand for money. The demand for money is the desire to own an asset. According to Walsh (2010), demand for cash increase because of the need to partake in a transaction, the need to guard against an uncertain future, and the need to hold liquid cash in order to take advantage of the changes in the market.

Keynes posits that the demand for money relies on the money that is foregone by opting not to hold bonds (Keynes, 1936). The Central Bank can manipulate interest rates to discourage or encourage lending by commercial banks. It is a common control utilized to keep inflation in check. The introduction of interest rate caps interferes with the dynamics of the market forces, which in turns affects the lending rates by financial institutions. A comprehensive analysis of their relationship between interest rates and lending rates by commercial banks makes it important to the study, to help understand how interest rate caps influence the profitability of commercial banks.

2.2.2 Free Market Theory

The free market theory is considered in most of the economic phenomenon and that can be traced from the great work of Friedman (1962). According to Friedman's argument, if the market was fair enough in operation, then the government would not be required to intervene in the definition of the interest rates to be charged in the economy. According to the theory, a free market is guided by the forces of market equilibrium for money to define the appropriate interest rates to be charged in the market. As per the equilibrium concept, the demand should be equivalent to the supply at the optimal point of operation that give the ideal interest rate as the price for money.

Free markets do not always oppress consumers as spreads are always dictated by the equilibrium point as established by the level of competition and resources available in the markets. Monetary policy even though may call for the central bank to always keep signaling the commercial banks on the changes in the interest rates that should be charged in the market, its role was purely to assess the market conditions without influencing them in any way. As per the theory, the risk existing in the markets and the free flow money at the disposal of the commercial banks for investment would be expected to determine the interest rates that compensate the firms for the risks associated with the debt (Frenkel & Razin, 2010). The theory is relevant to this study, based on the fact that its argument proposes that interest rates capping as may be practiced by economies around the globe is not justifiable and hence concluding that the independent variable of the study was considered irrelevant in the determination of the financial performance as in the first place it is considered a market malfunctioning practice.

2.2.3 Liquidity Preference Theory

This theory explains money demand, it is regarded as liquidity. This theory was developed from the works of John Maynard Keynes in 1936. The underlying premise of his book was explaining how demand and supply for money determined interest rate. This theory was supported by other scholars who focused on the supply of credit rather than the supply of money. Keynes (1936) argued that since rates of interest are the prices of credit, then they can be established by the supply and demand of credit. He emphasized the fact that since the banking system is the provider or supplier of credit, then it should be the one to influence interest rates level.

The CBK comes up with monetary policies whose main aim is to control the supply of money in the market. The supply of money is thus determined by the government and CBK. With the theory, the interest rates are thus determined by purely monetary forces. Keynes advocated for historically given prices that are set by the central bank. In addition, a minimum interest rate floor ought to be set above that which interest rates cannot fall. This clearly reflects the element of capping of rates of interest. The Critics argue that interest rate was not a purely monetary phenomenon since other forces such as capital productivity and other elements in the political economy possess a key role in interest rate determination (Gakuo, 2018). The relevance of this theory is evident as it provides an avenue for the implementation of capping.

2.3 Determinants of Financial Performance

A firm's financial performance is determined by both the internal and external factors. Each firm faces specific internal factors while external factors are general and result from prevailing industrial and macroeconomic conditions. There are several factors that affect a bank's financial performance; interest rates, size, liquidity, firm size, loan performance and CG are discussed in this section;

2.3.1 Interest Rates

The high interest rate in Kenya can be considered a key aspect that has given boost to the performance of the mortgage financial industry. According to Boamah (2009), the inflation rates that prevailed in a country was a key determinant of the interest rates with Kenya indicating a moderately above average inflation that can account for the interest rates prevailing. Samuelson (2011) contends that under normal circumstances, banks

increase their profitability with the increase in interest rates. Increase in the rates of interests increases the bank's income and this impact on the bank's financial performance and its overall performance. Zarruk (2008) argues that an increase in the rates of interest affects the entire system of banking since it has a significant effect on loans which is one of the primary bank assets.

2.3.2 Bank Size

The company size has been considered from different dimensions that indicates how big or small the company is. Among the commonly used approaches to evaluate the size of a business have been the total investment made and market (Abubakar, Sulaiman, & Haruna, 2018). The investment dimension of the company size has been measured differently by scholars using total assets or the volume of the revenue realized. Companies that are considered big are found to be having the ability to take advantage of the prevailing market opportunities and realize full benefit that may be untapped by the smaller firms. Doing large scale projects has allowed such firms to full enjoy the economies of scale that lowers the cost of production and subsequently allow a competitive price to be charged as transfer price in the market. This benefits have extended even to the ability to make informed decisions for the company's growth (Robin, Salim & Bloch, 2018).

Investors have been found to give more trust to the bigger companies who financial instruments have been considered stable as they have the tendency of associating them with effectiveness. Even though the bigger the financial institution, the more diverse their portfolios are giving the risk of entering into credit defaulting clients that may have

adverse influence on productivity of the financial institutions. Again the size of a firm will not always result into beneficial operations as bigger firms have complex structures that require high management capacity to meet them. As the firm endeavors to meet them, higher cost of staffing may be incurred or even sometimes leading to misappropriation of resources if substandard staffs are hired (Abubakar Sulaiman, & Haruna, 2018). At some cases bigger firms have been found to exceed their manageable level leading to diseconomies of scale. The natural log of the total reported assets in the financial statements were used to measure the size of the banks in this study.

2.3.3 Bank Liquidity

The liquidity of banks has been considered as the ability of the banks to meet their obligations that are in relation to maturing loans from the higher banks, the deposits from clients and any other obligation that might arise from the acquisition of assets for the firms (Global Association of Risk Professionals, 2013). A healthy business will be one which is able to meet its liabilities as and when they fall due. As a bare minimum, the banks are normally supposed to meet this requirement together with the deposit with the CBK which may go up to 20%. The bank are required to make their lending after meeting the basic requirement with 2015 alone the amount above this requirements by 38.7% (CBK, 2015).

The ability to meet this basic requirement and afford some extra amount to make lending is not an easy task. With the banks that are sound being able to offer more funds for lending that is the main source of income through interest. The banks should offer enough resources to meet the money on demand from customer deposits as well.

However, as the banks thrive to maintain the liquidity ratio, too high liquidity has been found to be risky in the exposure of idle funds that may be exposed for misuse (Pandey, 2010). In the current study, the liquidity ratio was used to evaluate the performance of the banks

2.3.4 Loan Performance

The markets have always been perceived to be a total reflection of the economic condition that prevail in the market. With the firm offering credit service being at the liberty to define the spread of the interest rates in the market, the general outcomes have always been the reflection of how risky offering debt would be to the financiers. As per Beck (2013) the past market performance is used to assess the level of risk expected in the future. With this in the mind, then it is expected that the past loans performance would automatically dictate the perceived risk in the markets and hence either boosting the financial performance or undermining it. Therefore, current good performance or past good performance of the loans improves the confidence of the investors leading to better opportunity scanning and funding that may allow increased productivity and hence financial performance.

2.4 Empirical Review

Both global, regional and local studies are discussed below. Kar and Swain (2014) did an investigation of whether commercial banks rates of interest had impacts on financial performance. The study employed a regression approach to analyze data from a sample of 50 banks and results of the analysis indicated a positive link to be existing between the interest rates that were being charged within the economy and the firm's performance of

microcredit firms. The study however, was found to differ from the current study in terms of the context European markets are considered to be developed while the current study focused on a developing market context that is in Kenya.

A Sri Lankan study analyzed capital, liquidity, operational, credit and earnings risks in an effort to unearth the attributes that impact on the profitability of listed banks in Sri Lanka (Ariyadasa *et al.*, 2017). The study findings show that the long term relationship was established between all variables used in the study and the profitability of commercial banks. This means a small change in the one of the factors can have a significant effect on the profit realized. One of the key conclusions of the study is that a stable financial sector and economy provides the impetus needed for increased performance in the commercial bank sector. The stability of a financial sector is based on the level of government interference in the form of monetary policies and the demand for money and commodities. The study presents an existing gap based on its focus which was on financial risks and ROA.

From the study that was made by Kaggwa (2013) and that aimed at establishing the effects of interest rates on the financial institution in the context of Uganda, focusing on a number of banks for the period from 2009-2012, found adverse correlation between the variables under consideration. The study that used a mixed research methodology pointed out that low interest rates increased the credit appetite of firms and exposed the banks to more non-credit worth customers. As loans advanced to customers increased, the risk of loan defaulting was also increased affecting the performance of the financial institutions in a negative way. However, the current study differs from the evidence of Kaggwa's

investigation in terms of policy based on the fact that Uganda differed from Kenya in the ruling and especially in the fiscal policies made by diverse leaders in Kenya.

Kiragu (2018) researched on the relationship between CG and ROA of banks under tier-two classifications. The research adopted a quantitative research methodology using the SPSS data analysis tools. Data analysis found both bank and board size influence ROA in a directly related way which was pointed out that bank size was having a statistically significant influence as per the regression results. The other variables considered in the study included board committees, structure of the boards, diversity, banks liquidity levels and management structure and which according to the research findings were established to be having an adverse influence on the FP of the specific banks under the study. Even though the study context was similar in terms of the state, the study only focused on the two tier banks that may be different in performance indicators for the listed banks, majority of whom are in tier one, calling for general investigation for listed banks be generalized.

Koech and Moronge (2018) study focused on the influence of the interest rates capping on the economic performance specifically looking at the growth of the SMEs in the Nairobi city. The study that adopted a quantitative research approach targeted a population of 5460 SMEs within the municipality. The study found that over the period when interest rates had been capped, the growth of the SMEs had been boosted to a great extent indicating a positive relationship between the two variables. This was attributed to the low cost of capital that attracted more investments from these businesses. However, the positive growth was on the side of the SMEs and that could be made at the expense of the banking industry calling for more investigation to be done on the subject matter.

Mecha (2018) sought in his research to unearth the influence of IRC on the portfolio created by commercial banks on loans on their performance. The research employed a qualitative research design focusing on all commercial banks listed in NSE. From the results, it was established that the personal loans appetite shifted drastically in the post capping era. This was attributed to the low uptake of the credit services by businesses as it had grown to become costly. However, the study was established to be limited in scope based on the two period coverage that relationship could have occurred by chance.

2.5 Conceptual Framework

The conceptual framework is a diagrammatic representation of the relationship between variables of study, and is aimed at facilitating an understanding of the relationship between the variables studied. This study sought to explain impact interest rate capping have on financial performance.

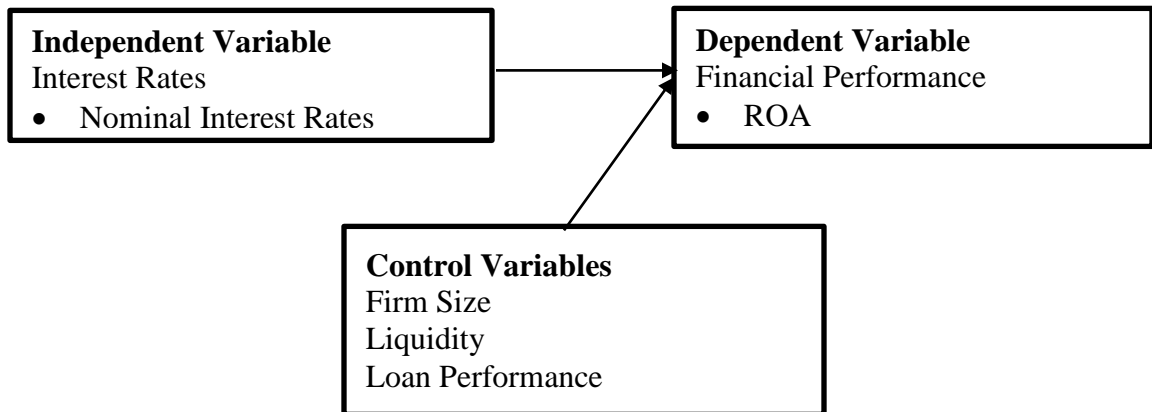


Figure 2.1: Conceptual Model

Source: Researcher (2021)

2.6 Summary of Literature and Research Gap

The theories demonstrate existence of the linkage between interest rate capping and mortgage uptake; this is also supported by empirical studies but there lacks clarity and consensus on a link in interest rate capping and ROA. Theoretically, diverse thoughts have been recorded where Keynesian theory affirmed that central bank can manipulate interest rates to discourage or encourage lending by commercial banks. It is a common control utilized to keep inflation in check. However, capping if extended goes beyond the inflation control and is seen to violet requirement of the Friedman free market theory that advocated for forces of the market equilibrium of money to dictate the interest rates as the price for money. As evident by the literature review, there a great diversity in relation to the findings that call for more studies to be conducted to investigate the current relations as compared to the capping era and establish if there is any impact.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, a description of the methods intended to be used in conducting the study was made. It highlights the research design and clarifies on the research population. The data used, its collection method are highlighted together with analysis methods used.

3.2 Research Design

This study involved looking at financial performance before and after IRC. The comparative approach of the study allows researchers to determine whether the performance before and after an event present any significant difference that could justify influence of the changed phenomenon. Nagm and Kautz (2007) pointed out that an event study allows definition of the event and estimating whether the IIRC changes significantly to exceed normal or expected changes in reaction to the banks performance.

3.3 Population

The targeted study population includes twelve commercial banks that are registered by CBK and are listed with the NSE (see appendix I). A census survey of all target listed banks was used. The use of census is ideal for smaller populations, as it enables the researcher to negate sampling errors with a view of providing data for all the study population. The study period includes seven quarters before and seven after the interest rate capping introduction.

3.4 Data Collection

This study used secondary data collected from financial statements of commercial banks. These statements are published with both NSE and CMA which are regulators for listed

firms. The data to be collected would be for the quarterly periods between September 2013 and September 2019. In total, there would be 24 quarters for analysis, 12 on each side of the IRC introduction. Data would also be collected from the CBK website as banks also do reporting to the regulator. Quarterly reports submitted to CBK were used and focus was on levels of loans issued, non-performing loans, leverage and also total asset levels. All this data was quantitative, and publicly available.

3.5 Diagnostic Tests

Ghasemi and Zahediasl (2012) insisted that normality and other assumptions should be taken seriously as if they do not hold, then it is impossible to draw accurate conclusions. Normality tests were conducted to test whether a data set was normally distributed. The test is meant to detect the likelihood that random variables that underlie the data set were normally distributed. Normality is important as it enhances the validity of t-tests and regression results (Lumley, Diehr, Emerson, & Chen (2002). Durbin- Watson test was used to test for autocorrelation while VIF was used to test for multicollinearity. Autocorrelation test is intended to advise on taking of corrective measures if lagged values of a variable have an impact on the variable as advised by CFI (n.d). VIF was conducted to facilitate an elimination of highly correlated independent variables which are expected to influence coefficients and lead to drawing of wrong results and conclusions. These tests are deemed fit to ensure the data collected is fit for analysis, which would determine the quality of the final research.

3.6 Data Analysis

Data analysis would involve the use of the SPSS software, version 26. A correlated t-test would be the main test in data analysis so that a comparison is made between means of data collected for the pre and post IRC periods. Assessments would be done for the changes between the ROA, non-performing loans, liquidity and bank size to determine if movements in absolute means were significant, or not, between the two periods.

Bank size was denoted by natural log of total assets, liquidity by ratio of current asset to current liabilities, while loans performance by ratio of total non-performing loans to total loans issued. Financial performance was indicated by return on asset. The values of the variables before and after capping were obtained and an average of these values was computed. The difference between variable means was also established. The standard deviation of the differences was used to calculate the standard error of the mean difference.

3.6.1 Analytical Model

In the analysis, the analytical model used is;

$$T = \frac{\text{Mean 1} - \text{Mean 2}}{\frac{S.dev}{\sqrt{n}}}$$

Where;

Mean 1 and 2 – means of the two samples

S.dev – The standard deviation of the differences in the paired means

n – Sample size

3.6.2 Test of Significance

In this study the t-test was used to determine the statistical significance of each of the variables. The test of significance in the study was used to determine whether there is a significant relatedness between interest rate capping and the financial performance of commercial banks in Kenya.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides a discussion of analysis done on collected data and the results obtained after analysis. It also incorporates a discussion of characteristics of the data collected in terms of response rate, descriptive discussions of average, minimum and maximum values of the data, as well as the standard deviation of the variables. The chapter also offers a discussion of comparison of the results of the analysis with findings of other studies identified in the literature review. The discussion facilitates an understanding of how the results of the study compare with those of other researchers.

4.2 Response Rate

In this study, data collection was not to 100% as one bank were found to have merged with another and its website was not available to facilitate data collection. Another bank which is part of an international bank was found to publish group results in its website and that hindered data collection for the Kenyan segment. Great efforts were however made and all other banks had their data collected in full. As a consequence, response rate for ROI was found to be 82% that of growth in customer deposits was 68% while the one for growth in non-performing loans were found to be 65%. The data collected was found to be sufficient enough to analyse and draw conclusions on the effect of IRC on the performance of banks in Kenya, considering that all local banks had their data collected. The response rate table is as shown in Table 1. Averages of the available data were used to represent performances in the banking industry.

Table 4.1 Response Rate Table

Variable	ROI	Customer deposit growth	Growth in non-performing loans
Data Collected	199	187	179
Unavailable data	76	88	96
Total	275	275	275
Response rate (%)	72%	68%	65%

Source: Author

4.3 Descriptive Statistics

Descriptive statistics were determined to establish some salient features of the variables of the study. Both pre, and post ROI, growth in customer deposits and growth in non-performing loans were analysed. Average values, standard deviation and both minimum and maximum values were used in the analysis. For the ROI, it was established that the mean pre event ROI was 1.97% while the post event ROI was 1.62% as shown in Table 4.2. The implication is that, introduction of the capping on interest rates was damaging on financial performance of the banking industry. In terms of volatility, it was established that the pre-event and post-event standard deviations of ROI were 0.00742 and 0.00796 respectively. This difference shows that capping introduced on interest rates increased volatility of returns of the banking industry, which is not good for the industry. The nature of performance as measured by ROI was also analysed using the range. The pre-event range was characterized by a minimum and maximum return of 0.795% and 3.06% while the post-event one was 0.632 and 3.08% as shown in Table 4.2.

In terms of growth in customer deposits, the growth reduced from an average of 4.07% to an average of 1.53%, with introduction of interest rate capping. This reduction implies

that, customers became less reliant on depositing their money in bank accounts, and probably instead adopted other means of investing or saving their excess incomes. It can therefore be noted that the rate at which bank liquidity was growing reduced with the introduction of capping on interest rates. The volatility in customer deposit growth was however impacted slightly positively, as noted by reduction in standard deviation from 0.0287 to 0.0235. It shows that the growth in customer deposits became slightly more predictable, which is good for planning purposes in the banking industry. The range in growth of customer deposits in pre and post event period was noted as 9.1% and 5.6% as computed from minimum and maximum values of the two periods as shown in Table 4.2. The decrease in range confirms the finding that that the growth in customer deposits became less volatile, and which is good for the banking industry.

Non-performing loans were found to have been growing at an average rate of 10.12% before interest rate capping, but this reduced to 5.58% after capping, as shown in Table 4.2. It shows that there was little growth in non-performing loans, as compared to the before capping introduction. The decrease is good for banks as it shows taming of the problem of growth in non-performing loans. There is a likelihood that banks became more strict in their evaluation of credit suitability of customers, and rejected most of those applications which probably reduced the buildup of non-performing loans. The standard deviation reduced from 0.1446 to 0.0474 as shown in Table 4.2, which is an indication that occurrence of non-performing loans became more predictable. The same position is supported by the range in growth of non-performing loans. The range reduced from 0.4932% to 0.143% after interest rate capping, as noted from the minimum and maximum growth of non-performing loans for the pre and post event period.

Table 4.2 Table for Data Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Pre event ROI	12	.0196936	.0074204	.0079508	.0306325
Post event ROI	12	.0162296	.0079608	.0063152	.030754
Pre event Deposits Growth	12	.0406722	.0286507	-.0030432	.0940677
Post event Deposits Growth	12	.015338	.0234808	-.0119255	.0675168
Pre event Growth in NPL	12	.101195	.1445963	-.0246744	.4685045
Post event growth in NPL	12	.0557705	.0473908	.0064496	.1494104

Source: Test results

4.4 Trend in ROI, Customer Deposits and Non-Performing Loans

In analysis of financial performance of the banking sector as affected by capping, trend graphs of ROI, average customer deposits and average non-performing loans were plotted in a line graph. The trend was identified as either increasing or decreasing, and the rate of changes were also noted. For ROI, it was established that it had a downward trend, even before interest rate capping was introduced, as shown in Figure 4.1. Variations within a year were also observed, but that was expected as profits build up in a year before starting again at Zero in January. The implication is that performance in the banking industry was already declining even before capping, and the capping just worsened the situation. The rate of decrease, as spotted from the exponential trend line plotted in the graph shows that the rate of decline reduced as from December 2015. The deteriorating performance long before capping is an indication that other factors may be blamed more for the decrease, than capping of interest rates.

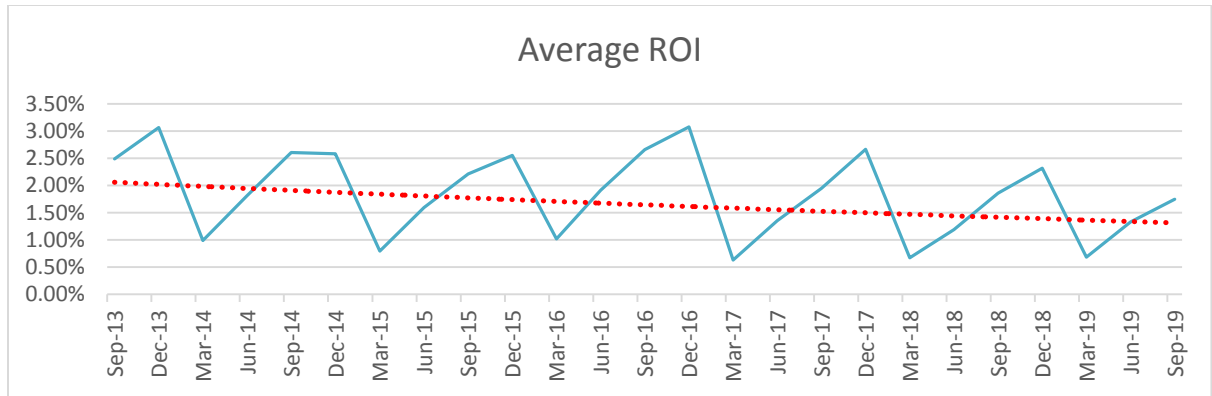


Fig 4.1: Trend Graph for ROI

The graph of average customer deposits show an increasing trend as shown in Figure 4.2. The implication is that, people have been depositing more and more money with banks. However, as noted from the graph, the rate of deposits increased at a decreasing rate from May 2016, which is towards the capping. It shows that customers started responding to the news of probable capping before even the actual capping was done. It is an indication of high sensitivity on the side of the customers, which sends an alert that any policies being made must well be evaluated since response would be faster in the banking sector. The decreasing rate is also an indication that capping was known to also affect the interest customers get for their deposits and probably opted for other investment options. The decrease is also an indication that less money was availed to banks by customers, which could have subsequently been advanced to borrowers which indicates that the key idea behind capping could not easily be met.

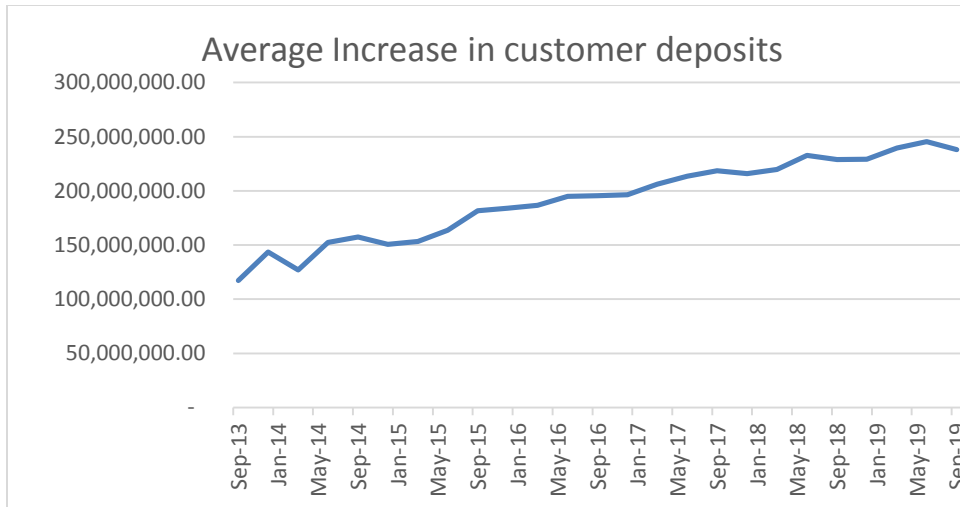


Fig 4.2: Trend in average customer deposits

In non-performing loans trend, similar trend to that of customer deposits was observed. As shown in Figure 4.3, the amounts of non-performing loans were already increasing long before the capping was introduced. However, between May 2014 and January 2016, the amounts were not increasing significantly as before and after the period. The period shows that it is possible to tame non-performing loans, and the banking sector just needs to investigate the factors that played in in that period. After May 2016, there were more increases in non-performing loans as shown in Figure 4.3. This is an indication that the capping had more devastating impact on ability to pay back loans, centrally to its reasons for introduction. The measure was better in 2017 but worsened again around May 2018. Noting the changes, it can also be observed that variations were more in the post capping period, and that there were no major stabilities in that period.

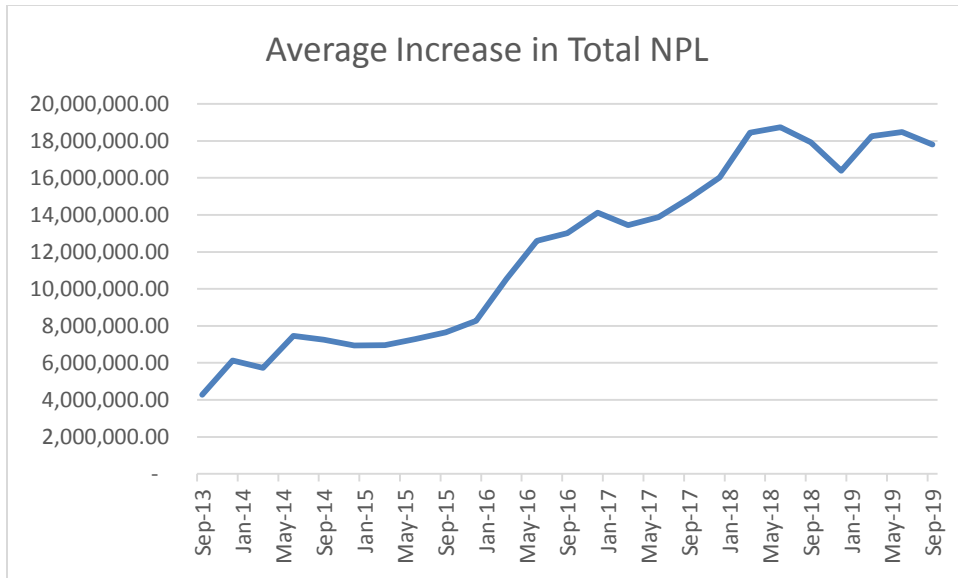


Fig 4.3: Trend in average non-performing loans

4.5 T-Test Scores

To understand if the differences in performance noted for the pre and post capping period were significant or not, a paired t-test was used. The test was used to determine if the differences in the means in the two periods were statistically different or not. The differences in mean ROI, standard error and standard deviations were found to be 0.003464, 0.0030772 and 0.0106597 respectively as shown in Table 4.3. The t-value for the test was found to be 1.1257. The p-value of the test was determined as 0.2843 which was insignificant. The implication is that, the average ROIs for the pre-capping and post-capping periods were not statistically different.

Table 4.3: T-test results for ROI

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Averag~I	12	.0196936	.0021421	.0074204	.0149789	.0244083
Averag~2	12	.0162296	.0022981	.0079608	.0111715	.0212876
diff	12	.003464	.0030772	.0106597	-.0033088	.0102368
mean(diff) = mean(AverageROI - AverageROI2)					t = 1.1257	
Ho: mean(diff) = 0				degrees of freedom = 11		
Ha: mean(diff) < 0			Ha: mean(diff) != 0		Ha: mean(diff) > 0	
Pr(T < t) = 0.8579			Pr(T > t) = 0.2843		Pr(T > t) = 0.1421	

For the increase in customer deposits, the difference in the mean, standard error and standard deviation was found to be 0.0253, 0.0143 and 0.0494 respectively. The t-value was found to be 1.7768 and the p-value was determined as 0.1032 as shown in Table 4.4. Since the p-value is insignificant at a 95% confidence interval, it can be concluded that, though there were differences in the mean growth in customer deposits between the pre-capping and post-capping periods, the differences were insignificant.

Table 4.4: T-test Results for Growth in Customer Deposits

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Averag~p	12	.0406722	.0082708	.0286507	.0224684	.058876
IncrCD~2	12	.015338	.0067783	.0234808	.000419	.030257
diff	12	.0253342	.0142584	.0493924	-.0060482	.0567167
mean(diff) = mean(AverageIncras~p - IncrCDeposit2)					t = 1.7768	
Ho: mean(diff) = 0				degrees of freedom = 11		
Ha: mean(diff) < 0			Ha: mean(diff) != 0		Ha: mean(diff) > 0	
Pr(T < t) = 0.9484			Pr(T > t) = 0.1032		Pr(T > t) = 0.0516	

In the case of non-performing loans, differences in means were also detected. The difference in average growth in average growth of non-performing loans were found to be 0.0454 while that of the standard error and standard deviation were found to be 0.0495 and 0.1714 respectively as shown in Table 4.5. The t-value in the test was found to be

0.9178 while the p-value was established as 0.3784. Since the p-value was insignificant, the conclusion was that, though there were differences in growth of non-performing loans, they were not significant at 95% significance level.

Table 4.5: T-test results for growth in non-performing loans

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Averag~L	12	.101195	.0417414	.1445963	.0093228	.1930671
IncrNPL2	12	.0557705	.0136806	.0473908	.0256598	.0858812
diff	12	.0454245	.0494917	.1714443	-.063506	.154355
mean(diff) = mean(AverageIncras~L - IncrNPL2)					t = 0.9178	
Ho: mean(diff) = 0			degrees of freedom = 11			
Ha: mean(diff) < 0		Ha: mean(diff) != 0		Ha: mean(diff) > 0		
Pr(T < t) = 0.8108		Pr(T > t) = 0.3784		Pr(T > t) = 0.1892		

4.6 Correlation Analysis

Correlation was done to determine how the variables studied affected each other. The post event values of the variables were used, and the results are as summarized in Table 4.6. The results of the study indicate that increase in customer deposits is negatively correlated with both ROI and increase in non-performing loans with correlation coefficients of -0.5372 and -0.1674 respectively. The implication is that, as rate of growth in customer deposits increase, both ROI and the growth in NPL increase. Against expectations, average ROI and increase in NPL are positively correlated with a coefficient of 0.2484, as shown in Table 4.6.

Table 4.6: Pearson Correlation Test Results

	Average ROI	Increase in C. Deposit	Increase in NPL
Average ROI	1.0000		
Increase in C. Deposit	-0.5372	1.0000	
Increase in NPL	0.2484	-0.1674	1.0000

4.7 Regression Analysis

Regression was done to determine the degree to which return on investments in the post event era was determined by both customer deposits and non-performing loans. In overall, it was noted that there was a positive correlation and had a R2 value of 0.1621 as shown in Table 4.7. The results indicate that 16.21% of the variations in ROI is as a result of changes in customer deposits and non-performing loans. The relationship was however noted to be insignificant at 95% confidence interval, as shown by a p-value of 0.1829.

Table 4.7: ANOVA test results

Source	SS	df	MS	Number of obs	=	12
				F(2, 9)	=	2.06
Model	.000219214	2	.000109607	Prob > F	=	0.1829
Residual	.000477909	9	.000053101	R-squared	=	0.3145
				Adj R-squared	=	0.1621
Total	.000697123	11	.000063375	Root MSE	=	.00729

Regression results indicated that the constant of the equation linking ROI to changes in customer deposits and non-performing loans was 0.01735 as shown in Table 4.8. Whereas an increase in customer deposits caused an decrease of ROI by -0.1729, increase in non-performing loans was found to have a positive effect of 0.02739 as shown in Table 4.8. The effect of the growth in NPL was considered unique and against expectations by the researcher. While the constant of the equation was significant, the coefficients of the independent variables was insignificant at 95% confidence interval, as shown by the p-values in Table 4.8.

Table 4.7: Regression Results

AverageROI2	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
IncrCDeposit2	-.1728803	.0949106	-1.82	0.102	-.387583	.0418224
IncrNPL2	.0273943	.0470255	0.58	0.575	-.0789848	.1337735
_cons	.0173534	.0038342	4.53	0.001	.0086799	.0260269

4.8 Discussion of Research Findings

This study was aimed at determining the impact of interest rate capping introduction on the performance of listed banks in Kenya. The measures adopted were for the return on investment, growth in customer deposits and growth in non-performing loans. On the return on investment, descriptive statistics indicated that there was a slight decrease after interest rate capping and also the volatility increased. The same was confirmed by trend graphs plotted though it was observed that there had been a declining trend which was just boosted by the capping. Using the t-test, the p-value obtained was insignificant and was concluded that, the changes caused by the capping were not significant.

On customer deposits, the trend graphs show that they kept on increasing after capping. In terms of the growth rate, the average growth rate decreased from 4.07% per quarter to 1.53%. The implication was that, though they continued to grow, they started growing at a decreased rate compared to the pre-capping period. The growth however became more stable as noted from both the range and standard deviation of the rates of change of customer deposits. This show that capping also reduced the incentives of deposits as an investment option and also banks received less deposits which they could lend to borrowers. The t-test returned an insignificant p-value and the implication is that the changes were not statistically significant at 5% significance level.

On non-performing loans, the trend graphs indicated that they continued to grow, and the descriptive statistics show that the rate of growth reduced from an average of 10.12% to 5.58%. It is an indication that banks became more cautious and strict in advancement of credit to risky individuals. The t-test results however indicate that the changes were not that significant.

Of the three variables studied, the relationship between ROI and increase in customer deposits was found to be high, though negative, with a value of -0.5372. The implication is that, a change in customer deposit was likely to cause a higher impact on the ROI. Both the increase in customer deposits and non-performing loans were found to have an overall effect of 16.21% of the changes in ROI. The implication is that 83.79% of the changes in ROI of listed banks are due to other factors outside the scope of this study.

The findings agree with the perception of the Keynesian Theory as well as the free market theory that only supply and demand for money should dictate the interest rates, otherwise a distortion of equilibrium between the two affects availability of money for daily use and investments. It also affects the perception between investment through deposits and holding of bonds, and that led to the decline in the rate at which customer deposits grew. The findings agree with Ariyadasa et al. (2017) that interest rates affect bank profitability and the need to maintain a stable banking system. The reduced deposits by customers may also mean that more lending of funds was done through informal banking systems, which reduced uptake of loans as established by Mecha (2018). The overall finding is that capping affected banks profitability by reducing their ROI and reducing customer deposits which is a source for bank lendable funds but positively reducing the growth of non-performing loans.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter of the research, a focus of the research finding established from the research is reviewed. Guided by the research objective and the results established, the section will specifically cover summary of research findings, conclusions drawn from those findings, a brief recommendation based on the value of the study, limitations and the suggestion for future studies

5.2 Summary of Findings

The objective of this study was to establish the impact of interest rates capping on the financial performance of the listed commercial banks in Kenya. The research targeted to collect data from 12 banks that were listed in Kenya. Out of all the banks, the data was to be collected of a quarterly basis for the pre-lifting period and for the post lifting period of the interest rates capping. From the response rate, the dependent variable recorded a response rate of 72% that was for the return on investment while the customers deposit growth indicated a response rate of 68% as compared to the non-performing loans that stood at 65%. The response rate indicated that sufficient data was collected and could be reliable to be used for the construction of a research conclusion that can be generalized to explain the phenomenon of interest rates capping.

In the process of achieving the research objective, the study collected secondary data on the quarterly performance of the listed commercial banks that was readily available from the commercial banks websites. From the SPSS analysis results, all the variables were

divided into two sections that are the pre-event period and the post event period. The research findings are mostly based on the difference between the different variables considered in the study from the two periods. Based on the mean score for the ROI, the pre event performance was 0.0197 while the post event score was at 0.0162. From the deposits growth, 0.0407 was the mean performance for the pre event period while in the post event period the mean score was 0.0153. Lastly for the growth of the non-performing loans pre event period indicated a value of 0.1012 with the post event results indicating a value of 0.0558 as the mean.

Based on the other test conducted on the research, the trend analysis depicted that the trend for the both deposits and NPL were growing over the period of observation with NPL giving a greater growth during the post event period. From the t-test, the score for ROI indicated that there was a difference of 0.0035 between the averages with a t score of 1.1257. From the growth in customer's deposits, the difference recorded between two periods was 0.0253 with a t score of 1.7768. Lastly the scores for the growth of the non-performing loans indicated a difference between the two periods of 0.0454 and a t score of 0.9178 who's indicated the main results for the study variables under consideration.

5.3 Conclusions

Based on the above established research findings, the researcher was led to draw a number of conclusions in connection with the research objectives. Based on the response rate that indicated a score of 65%, a conclusion can be drawn that sufficient data was collected to drive the researcher into making conclusion based on the 60% threshold for a survey study like in the current study (Fincham, 2008). From the descriptive statistics results, the mean score for the ROI indicated a better performance during the interest

rates capping period as compared to the post capping period. This observation leads to a conclusion that interest rates capping was having a positive impact on the ROI. From the growth on deposits, a better score for the mean in the pre event period compared to the post event period lead to a conclusion that interest rates capping positively influenced the growth of the customer deposits. For the growth on the NPL the mean score indicated that the pre event period recorded a lower NPL as compared to the post event period. This leads to the conclusion that interest rates capping negatively influenced the NPL.

Based on the t test, the following conclusions are drawn regarding to the current research objectives. According to the t values, the study make a conclusion that the variable that was having the greatest difference between the pre event period and the post event period was that of customer's deposits with a value of 1.7768. This was an indication that interest rates capping was having a greater impact on the customer's deposits that could be attributed to the limited flow of money in circulation whenever interest goes up after lifting the cap shying away investors from borrowing that has multiplier effect. ROI was found to be second in terms of the t test score leading to the conclusion that a moderate influence was exhibited on the ROI as associated to the interest rates capping lift. The t value for NPL of 0.9178 indicated that NPL received the lowest comparative impact from the interest rates capping in Kenya.

5.4 Recommendations

In a summed consideration, the impact of the interest rates capping have been considered to be positive to the performance of the commercial banks in Kenya. This is based on the fact that all the variables considered in the current study indicated a better performance in the pre event period comparative to the post event period. This leads to the consideration

of recommending the policy makers either through a monetary policy or an enactment through the Acts of parliament to consider introduction of the interest rates capping. It is on the account that the banking industry forces of a free market seems to have failed leading to poor performance of the banks in the absence of the capping rule.

The study also recommendation to practicing professionals within the industry to consider operating with the minimum possible interest rates as recommended by the CBK. By charging the lowest interest rates, this will make credit cheaper to the consumers to make them prefer the banks with the lowest rates to partner with. Hence this will increase the cash flows within the partners within the bank and in return increase the ROI for the bank as customer deposits also grows. Cheaper credit has also been associated with the ability of consumers to repay leading to a reduction of the NPL that could be having a negative implication to the performance of these financial institutions.

5.5 Limitations of the Study

The research process has been faced with a number of limitations that may influence the generalization of the research findings in different economic set up. The research used the quarterly results that are published by the commercial banks at their websites on a regular basis. The reliability of such information as compared to the final full year reports may however be questionable on the account that the quarterly financial reports are un audited thus may not be as reliable as the audited results.

The implications of the monetary policy that is normally made by the central bank of each state have been found to greatly vary from one country to another and from one economic condition to the other. This will be a limiting factor whenever generalizing the

research findings in the context of other nations. The national economic structure, political influence and the economic condition should be similar to those of Kenya if the current research finding will be assumed to match those of the other country. Another limit is on the conceptual focus of the study. This is expected to have caused the change in client benefits.

5.6 Suggestions for Further Research

For the creation of more knowledge and understanding on the variables related to the current study, the researcher recommends future researchers to consider conducting a similar investigation to any other developing country with a status like that of Kenya which have previous exercised interest rates capping and thereafter lifting of the same policy to ascertain if similar results could be obtained. The gap also could be addressed by future studies by focusing on the other financial institutions that are within the nation but that are not publicly traded as they play a major role in supporting businesses through credit funding and creation.

Future studies would also be encouraged to consider a similar investigation considering more years to ascertain the real impact of the interest rates capping in the absence of other cyclical economic conditions that might have influenced general performance of the economy within the duration that was considered in the current study. Lastly, as the current study only focused on the micro economic factors that influence the performance of the commercial banks, future researchers should consider blending in other macroeconomic factors in the country to establish a more inclusive and conclusive research findings.

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APPENDICES

Appendix I: Listed Banks in Kenya

1. Barclays Bank
2. Co-operative Bank of Kenya
3. Diamond Trust Bank Kenya
4. Equity Bank
5. Housing Finance
6. I&M Holdings
7. Kenya Commercial Bank
8. National Bank of Kenya
9. NIC Bank
10. Stanbic Holdings Limited
11. Standard Chartered Bank

Appendix II: Data Collected

Quarter	Average ROI	Average customer deposits	Average Increase in customer deposits	Average NPL	Average Increase in NPL
Sep-13	2.49%	117,242,906.20	9.41%	4,276,992.60	-2.47%
Dec-13	3.06%	143,397,552.50	1.49%	6,127,503.00	4.54%
Mar-14	0.99%	126,937,166.67	3.15%	5,734,080.33	46.85%
Jun-14	1.81%	152,495,442.00	3.38%	7,452,588.29	6.48%
Sep-14	2.60%	157,363,904.43	6.07%	7,250,784.86	3.83%
Dec-14	2.59%	150,475,091.86	5.33%	6,947,701.50	-0.47%
Mar-15	0.80%	153,367,458.86	-0.30%	6,958,123.67	-2.46%
Jun-15	1.59%	163,658,093.00	7.68%	7,285,344.33	3.76%
Sep-15	2.22%	181,541,108.88	5.61%	7,655,498.29	8.12%
Dec-15	2.55%	184,074,371.50	2.98%	8,265,600.86	6.99%
Mar-16	1.02%	186,647,146.38	0.60%	10,536,271.14	27.88%
Jun-16	1.91%	194,982,040.88	3.41%	12,592,721.43	18.38%
Sep-16	2.66%	195,634,722.63	0.79%	13,005,437.14	6.74%
Dec-16	3.08%	196,340,260.38	-0.94%	14,114,792.71	10.28%
Mar-17	0.63%	206,196,730.50	4.44%	13,443,609.13	4.46%
Jun-17	1.36%	213,653,166.75	2.97%	13,885,571.88	3.78%
Sep-17	1.95%	218,429,078.00	0.84%	14,899,699.38	7.58%
Dec-17	2.66%	215,819,724.88	-0.54%	16,029,613.63	14.94%
Mar-18	0.67%	219,592,106.63	0.96%	18,449,831.88	11.64%
Jun-18	1.19%	232,788,586.00	6.75%	18,733,236.13	6.55%
Sep-18	1.86%	228,981,077.56	-1.19%	17,917,174.78	0.90%
Dec-18	2.32%	229,243,931.50	2.16%	16,386,951.70	1.01%
Mar-19	0.68%	239,514,021.44	0.96%	18,249,694.89	4.28%
Jun-19	1.33%	245,397,489.67	2.21%	18,476,534.89	0.85%
Sep-19	1.75%	238,158,281.88	-0.22%	17,800,866.50	0.64%