



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

Musyimi, C. N., & Kising'u, T. M.

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

Musyimi, C. N.,^{1*} & Kising'u, T. M.²

^{1*}Masters Candidate, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

²Ph.D, Lecturer, Jomo Kenyatta University of Agriculture and Technology [JKUAT], Kenya

Accepted: May 8, 2019

ABSTRACT

The general objective of this study was to establish the effects of interest capping on financial performance of commercial banks in Kericho County, Kenya. This research adopted a quantitative cross-sectional survey research design aimed at collecting large number of qualitative and quantitative data at a point in time to address the formulated hypotheses. Stratified sampling technique was used to select sample size of 70 respondents from the target population of 86 respondents in commercial banks in Kericho County, Kenya. Primary data was collected by use of self-administered structured questionnaires which was distributed through the drop and pick method. The secondary data collected was used to cross validate the primary data results. The collected data was analyzed quantitatively and qualitatively. Descriptive and inferential statistics was done using Statistical Package for Social Sciences (SPSS) version 24 and specifically multiple regression model was used for hypotheses testing. Set of data was described using percentage, mean standard deviation and coefficient of variation and presented using tables, charts and graphs. The study revealed that interest capping had a statistically significant effect on financial performance of commercial banks in Kericho County. Short Loan Interest Capping had a statistically significant effect on financial performance of commercial banks in Kericho County. Mortgage Interest Capping had a statistically significant effect on financial performance of commercial banks in Kericho County. Deposit interest rate capping had a statistically significant effect financial performance of commercial banks in Kericho County. Fixed deposit interest capping had a statistically significant effect on financial performance of commercial banks in Kericho County. The study recommended that the regulator should be cautious on setting capping rates as it affects financial performance of banks.

Key terms: Central Bank Base Lending Rate, Commercial Banks, Inflation Rates Interest Rate Capping

CITATION: Musyimi, C. N., & Kising'u, T. M. (2019). Effect of interest capping on financial performance in commercial banks in Kericho County, Kenya. *The Strategic Journal of Business & Change Management*, 6 (2), 1130 –1149.

INTRODUCTION

Castellanos (2012) maintained that the role of the financial institutions is to use the savers short-term deposits and create credit to loan to long-term borrowers in what is referred to as the maturity intermediation. In any economy, banks act as an intermediary through which people deposit funds and get loans. For any bank to attain or achieve the desired or projected financial performance in line with the strategic objectives there is need to promote transparency and accountability in all the operations of the organizations. Chai (2011) made a significant suggestion that in today's dynamic and global competitive environment, advancement is primarily due to three major trends: concentrated international competition, disjointed and challenging markets, and assorted and swiftly changing technologies. Banks essentially make money from the difference between the rate which they pay depositors and the rate which they charge borrowers. These rates are determined by market forces, that is, demand and supply, but also several other factors come into play. Iff and ZEW (2010) pointed that placing a cap on interest rates will have an effect on the industry's efficiency as it doesn't account for several factors that might affect the banks' decision to opt for certain spreads. Interest rate cap is the maximum interest rate that a financial institution can charge a borrower for an adjustable rate mortgage or loan according to the contractual terms of the mortgage or loan (Maimbo & Gallegos, 2014).

Iff and ZEW (2010) opined that interest rate caps are most likely to bite at the lower end of the market is intuitive; interest rates charged by microfinance institutions are generally higher than those charged by banks and this is driven by a higher cost of funds and higher relative overheads. Transaction costs make larger loans relatively more cost effective for the financial institution. If it costs a commercial bank \$100 to make a credit decision on a \$10,000 loan then it will factor this 1% into the price of the loan

(Maimbo & Gallegos, 2014). The cost of loan assessment does not fall in proportion with the loan size and so if a loan of \$1,000 still costs \$30 to assess, the cost which must be factored in rises to 3%. This cost pushes the higher rates of lending on smaller loans. The higher prices are usually paid because the marginal product of capital is higher for people with little or no access to it. Ingram (2011) states that interest rates are important because they control the flow of money in the economy. High interest rates curb inflation but also slow down the economy. Low interest rates stimulate the economy, but could lead to inflation. When interest rates are high, people do not want to take loans out from the bank because it is more difficult to pay the loans back, and the number of purchase of real assets goes down. The effects of a lower interest rate on the economy are very beneficial for the consumer. When interest rates are low, people are more likely to take loans out of the bank in order to pay for things like houses and cars. Policies to promote competition among credit providers, combined with relevant consumer protection measures like truth-in-lending laws, can go a long way toward expanding the reach of sustainable microcredit while safeguarding consumer interests (Maimbo & Gallegos, 2014).

In India since 2011 where there is a margin cap of 12% and microloans are capped at 26% per annum to support rural households with annual income up to 60,000 rupees and urban and semi-urban households with income up to 120,000 rupees (Maimbo & Gallegos, 2014). Richard, Scott, and William, (2013) showed that by 2013, 17 countries in Sub Saharan Africa had introduced interest rate caps. Many countries in Africa have established interest rate ceilings to protect consumers from high interest rates charged by banks. Most of these ceilings are the response of governments that are facing political and cultural pressure from its citizens. The West Africa Economic and Monetary Union, which includes eight francophone African countries, lowered the interest

rate ceiling, initially established in 1997, by three percent. According to the Council of Ministers, the new maximum effective interest rate banks could charge was 15%, while Microfinance institutions (MFIs) could charge 24%. The Economic and Monetary Community of Central Africa, comprising of 6 countries (Cameroon, the Central African Republic, Chad, the Republic of Congo, Gabon, and Equatorial Guinea), set up an interest rate ceiling in October 2012. The interest rate ceiling specific to the microfinance sector is calculated by applying a margin of 33% to the average effective interest rate charged by microfinance institutions during the previous six months (Djibril, 2013).

According to the Central Bank of Kenya – CBK (2016), the banking sector profits in 2015 stood at Sh134 billion, mainly driven by interest earnings from customers. However, total commercial banks' earnings fell significantly in 2016 and 2017. According to Central Bank of Kenya, (2016), Equity Bank, the country's largest lender by market value, announced that its profit after taxation reduced by four percent to Sh16.54 billion from Sh17.33 billion realized in 2015. KCB, the country's largest bank by assets, on the other hand, posted a flat net profit of Sh19.7 billion in its 2016 results. NIC Bank also recorded a 3.3 percent decline in earnings, driven by a 35.8 percent growth in total operating expenses, which outpaced a 17.5 percent growth in total operating revenue. Similarly, Barclays Bank and Stanbic Bank recorded 12.6 percent and 9.9 percent reduction in earnings. In general, the commercial banks recorded a decline in core earnings per share, with the average decline across the banking sector put at 5.4 percent, owing to the tough operating environment as a result of the interest rate caps and higher loan loss provision.

Commercial banks in Kenya are premeditated by the Central Bank of Kenya. According to CBK (2016) directorate there are 43 commercial banks in the country some of which are internationally based. As per the regulatory authority, 30 were locally owned

banks comprised 3 with public shareholding and 27 privately owned while 14 were foreign owned. Of the 14 foreign owned banking institutions, 10 are locally incorporated subsidiaries of foreign banks and 4 are branches of foreign incorporated banks. Further, 10 of the 44 banking institutions are listed on the Nairobi Securities Exchange. The headquarters of these banks are in Nairobi and they serve both retail and corporate customers. The banks in the country perform the following function: creation of money, community savings, ensure smooth support of payment mechanisms, ensure smooth flow of international transactions, storage of valuable goods and provision of credit services.

Statement of the Problem

A belief in the effectiveness of interest rate caps endures especially by the Kenya Bankers Association emphasizing that interest rate capping does not only address market failure but also introduces market failure due to the expectations that commercial banks will prefer lending to the government than households and businesses leading to credit rationing and distortions thus suggesting that not only are the interest caps ineffective, they harm their intended beneficiaries, despite the IMF (2016) stressing that interest rate capping by Central Bank of Kenya is likely to strengthen monetary policy framework (Miller & Black, 2016; Umuro, 2017). Nonetheless, the Loanable Funds theory holds that an inverse relationship exists between the loanable funds and interest rate (Umuro, 2017; Osuagwu & Nwokoma, 2017). Consequently, setting interest rate caps on loans has long been a focus of religious leaders and a wide variety of governments and their agents (Umuro, 2017; Osuagwu & Nwokoma, 2017). There are increasing scholarly debates on the direction of policy to effectively improve the performance of banks (Adeleye, Osabuohien, Bowale, Matthew, & Oduntan, 2018; Osuagwu, 2014). Osuagwu & Nwokoma (2017) found that interest rate deregulation stimulates financial deepening

encouraging savings and increasing financial assets in the long run, but such may not be the case in the short-run, while Orji, Aguegboh, & Anthony-Orji, (2015) found that financial liberalization (proxied by domestic credit) promotes real sector activities (Adeleye *et al.*, 2018).

The interest rate caps generally target loan sharks and predatory lending practices and have increased in popularity since the onset of the financial crisis and the growth of payday loan companies (Castellanos, 2012; Osuagwu & Nwokoma, 2017). However, Since Kenya's interest capping bill became a law in August 2016, interest rates dropped to a maximum of 14.5 per cent, banks paid depositors 7.35 per cent on their money, forcing upon them the narrowest spreads since Kenya liberalized its financial markets in 1990s. Prior to the capping law, the amount earned from interest rate products was KSh 273.11 billion for the banking sector accounting for 60 per cent of the total KSh 448.03 billion income made by the bankers during the year 2015 (CBK, 2016). The Markit Stanbic Bank Kenya Purchasing Managers' Index (PMI) dropped to 49.9 in May 2017 from 50.3 the previous month, falling below the 50.0 level which separates growth and contraction. The ratio was at 5.8% in early 2015 before rising to 9.5% in August 2016 a month to the rate capping. Post capping, it has been on a general decline hitting a low of 8.9% in January 2017 before rising to 9.6% in February 2017 (CBK, 2016). A consumer survey dated 22nd March 2017 commissioned by KBA recommended repeal of the law due to lack of growth of credit coupled with a stagnated growth of credit to private sector at single digit levels of circa 4% over the first 6 months (Kangethe, 2017).

Alshebami and Khandare (2015) carried a study on the impact of interest rate ceilings on microfinance industry, while Heng (2015) conducted a study on the impact of the new financial services law in Bolivia on financial stability and inclusion. Miller (2013) investigated the relationship between interest rate

caps and their impact on financial inclusion. Iff and ZEW (2010) studied the interest rate restrictions in the EU. Locally, Owidhi (2016) wrote a paper on capping interest rates as the best economic sacrifice for Kenya, Moguche (2013) assessed the determinants of interest rate exposure of commercial banks in Kenya, while Ngetich and Wanjau (2011) investigated the effects of interest rate spread on the level of non-performing assets of commercial banks in Kenya. The foregoing studies generally focused on different contexts and different aspects of interest rates hence a contextual and conceptual gap on the effects of interest rate capping on the financial performance of banks in Kenya. This study sought to establish the influence of interest capping on financial performance in commercial banks in Kericho County, Kenya.

Research Objectives

- To determine the influence of short loan interest capping on financial performance of commercial banks in Kericho County, Kenya.
- To investigate the effect of mortgage interest capping on financial performance of commercial banks in Kericho County, Kenya.
- To determine the influence of deposit interest rate capping on financial performance of commercial banks in Kericho County, Kenya.
- To establish the effect of fixed deposit interest capping on financial performance of commercial banks in Kericho County, Kenya.

LITERATURE REVIEW

Theoretical Framework

Interest Rate Parity Theory

The interest rate parity theory posits that the market determines exchange rates in such a way that high interest rates are compensated for by an expectation of currency depreciation, and vice versa. According to Cashin, Liang and McDermott (2000), the basis for this parity is also the law of one price, in that the purchase of one investment asset in one country

should yield the same return as the exact same asset in another country otherwise exchange rates would have to adjust to make UP for the difference. With the adjustment of the exchange rates the forex bureaus would either make a profit or loss and this would affect the growth as it affects their profitability and sale volumes. In this case, there would be no opportunity to profit from interest differentials, and hence no incentive to borrow in a low-interest currency in order to invest the proceeds in a high-interest currency. In practice, high-interest currencies often experience prolonged periods of sharp appreciation spurred by capital inflows. Lured by interest differentials, short-term private capital flows can be highly destabilizing.

The interest rate parity theory is significant in this study since it helps to explain the reason why business organizations may not achieve high financial performance because of servicing loans that were acquired at high interest rates. Organizations may also not have much incentive to borrow at high interest rates and this is likely to affect the magnitude of projects undertaken and the financial performance attained. By manipulating interest rates, central banks exert influence over both inflation and exchange rates, and changing interest rates impact inflation and currency values. Higher interest rates offer lenders in an economy a higher return relative to other countries. The impact of higher interest rates is mitigated, however, if inflation in the country is much higher than in others, or if additional factors serve to drive the currency down. The opposite relationship exists for decreasing interest rates, that is, lower interest rates tend to decrease exchange rates (Bergen, 2010). It implies that there is no relationship between past price changes and future price changes. This means that price changes are independent and random. The share prices therefore fully reflect all publicly available information including historical information and hence investors who

depend on such information cannot earn above average profits from their transactions.

Lien Theory of Mortgages

Hester (1975) developed the lien theory. In the lien theory, the mortgagor retains legal and equitable title to the property, but conveys an interest that the mortgagee can only foreclose upon to satisfy the obligation of the mortgagor. This is equivalent to a future interest in the property which allows the mortgagee to use the process of foreclosure. The interest is a security interest or mortgage, which forms a lien on the property (Makori & Memba, 2015). The theory allows title to remain with the mortgagor and the mortgage that is placed on the property is a charge on the title. The mortgage instrument says nothing about title but under the lien theory of mortgages the debt is the principal obligation and the mortgage collateral agreement to secure the debt (Nwankwo, 2014).

The lien theory states that the mortgagee has only a lien on the property and is entitled to possession and rents only upon foreclosure (Jennings, 2013). The lien theory of mortgages presupposes that foreclosures generally require a civil action against the borrower-owner who is in default (Brueggeman & Fisher, 2011). Lien theory provides that a mortgagee of property holds only a lien, not title, to the property until such time as the mortgage is fully paid, at which time the lien is removed. Under this system, when a loan is made, title is invested in an independent third party (trustee). The trustee receives a deed of trust containing instructions to be followed if the lender provides notice to the trustee that a mortgagor is in default. In this event, the trustee usually notifies the borrower that the deficiency must be cured by a certain date or the trustee will proceed to auction the property (Brueggeman & Fisher, 2011).

Liquidity Preference Theory

The Late Lord J. M. Keynes (1936) propounded the Liquidity Preference Theory. Keynes developed the theory of liquidity preference in order to explain what factors determine the economy's interest rate. According to this theory, the rate of interest is the payment for parting with liquidity. Keynes (1936) postulated three motives for individuals to hold money namely, transactions, precautionary and speculative. The role of money as a medium of exchange explains the transactions motive and is similar to the quantity theories of money. The precautionary motive emanates from the mismatch of payments and receipts and therefore the demand to hold money to smoothen out these future uncertainties.

The speculative motive bore the liquidity preference theory of money demand and emphasizes the store-of-value function of money. According to this theory, individuals can hold their wealth in either money or bonds and the rate of interest determined the preference for either form of holding wealth. The value attached to liquidity leads to the introduction into the money demand function. This is because according to this theory, banks and other firms can satisfy liquidity needs by borrowing in the money in capital markets. However, excessive use of purchased funds in the liability structure can result in a liquidity crisis if investors lose confidence in the institution and refuse to roll over such funds. Applying the liquidity preference theory explains the premium offered in forward rates in comparison to expected future spot rates. This premium is used as payment for the use of scarce liquid resources (Bester, 2004).

Loanable Funds Theory

Swedish economist Wicksell (1851-1926) first advanced this theory. Other economists including Myrdal, Lindahl, Ohlin, Robertson & Vinerin 1930s added on theory (Umuro, 2017; Osuagwu & Nwokoma, 2017). The theory states that the rate of

interest rate is determined by the demand for and supply of loanable funds. There are three factors affecting demand for loanable funds; investment, hoarding and dissaving. On the other hand, supply for four determines loanable funds factors namely savings, dishoarding, disinvestment, bank money. The prevailing interest rate according to the theory is the point of equilibrium between demand for and supply of money. The loanable funds theory is an attempt to improve upon the classical theory of interest. It recognizes that money can play a disturbing role in the saving and investment processes and thereby causes variations in the level of income. Thus, it is a monetary approach to the theory of interest, as distinguished from that of the classical economists. In fact, the loanable funds theory synthesizes both the monetary and non-monetary aspects of the problem (Umuro, 2017; Osuagwu & Nwokoma, 2017).

According to the loanable funds theory, the rate of interest is the price that equates the demand for and supply of loanable funds (Umuro, 2017; Osuagwu & Nwokoma, 2017). At the equilibrium level where demand supply of loanable funds savers and investors are the happiest possible (Umuro, 2017). Fluctuations in the rate of interest arise from variations either in the demand for loans or in the supply of loans or credit funds available for lending (Umuro, 2017; Osuagwu & Nwokoma, 2017). Ngugi (2001) argued that interest is the price that equates the demand for loanable funds with the supply of loanable funds. Loanable funds are the sums of money supplied and demanded at any time in the money market. The savings of the people and the additions to the money supply (usually through credit creation by banks) during that period would influence the supply of 'credit' or funds available for lending. The demand side of the loanable funds, on the other hand, would be determined by the demand for investment plus the demand for hoarding money (Umuro, 2017; Osuagwu & Nwokoma, 2017).

Conceptual Framework

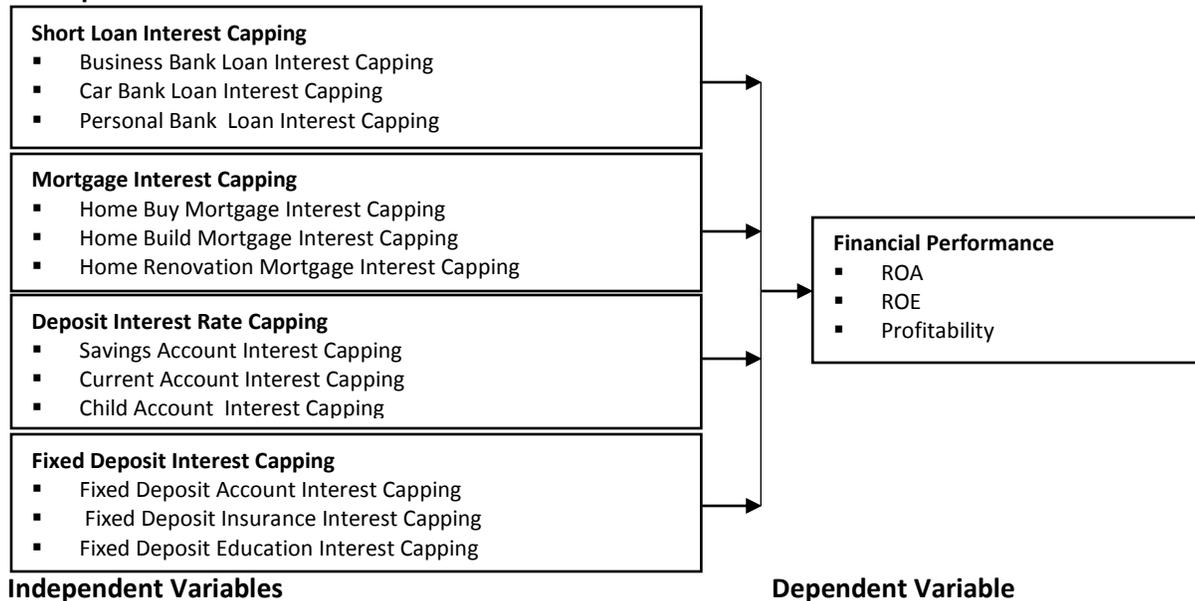


Figure 1: Conceptual Framework

Source: Author (2019)

Review of Literature of Study Variables

Short Loan Interest Rate Capping

Short-term loans were invented to fill that gap, to provide the small financial aid which was troublesome to obtain. Määttä (2010) argued where the short-term loan is quickly achievable, unsecured, less than three months, minor consumer credit, and which is attainable via internet or text message. The amount of short-term loan is typically from around 20 euros to couple hundred euros, and the price is based on fixed costs rather than variable interest rate. Obtaining the credit through computer or mobile devices is easy and fast, and the loans are not bound on buying commodities. Depending on the amount of loan and payback time, the annual percentage rate varies from around 200 to over 1000 percent (Valkama, Muttillainen, 2008). In terms of annual percentage rate, short-term loans are very expensive compared to conventional consumer credit. Pönkä and Parkkali (2010) have made comprehensive research on legal problems of short-term credit, whereas Länsineva (2010) has viewed the regulation of instant loan lenders in relation to the basic rights

of an individual. Tapani (2010) has reflected the amendment of criminal law to the operations of instant lenders. Määttä (2010) has made a review of the regulation of instant loans from a legal perspective. Juurikkala (2012) has presented divergent opinion about the functionality of the interest rate cap and proposed different solution to the problem. DeYoung and Phillips (2013) studied the interest rate restrictions related to short term consumer credit and indicated that short-term financial need is usually fulfilled by using credit card or installments, since getting a small loan from a bank might be time consuming and not available for everyone.

Mortgage Interest Rate Capping

The high risk premiums associated with mortgages cause their interest rates to be expensive to lenders. Njongoro (2013) stated that mortgage interest rates reflect the general lending rate of financial institutions as any other loan. Positive Interest rates (lending in excess of inflation rates) are viewed as prerequisite for successful and sustainable finance (Buckley, 2011). Long term loans, such as mortgage financing loans have higher interest rates as a result

of expectation of higher inflation among other factors (Gitman, 2012). The market rate of interest on mortgage loans is established by what borrowers are willing to pay for the use of funds over a specified period of time and what lenders are willing to accept in the way of compensation for the use of such funds. Real estate tends to be highly levered and thus the rate of return earned by equity investors tends to be affected by changes in interest rate. Even where the investor has a fixed rate of mortgage, an increase in interest rate may lower the price a subsequent buyer is willing to pay.

Furthermore, the yield rate (required rate of return) that an investor requires for real estate tends to increase with the overall levels of interest rates in the economy (Maranga & Nyakundi, 2017). Many studies of the financial impact of the mortgage interest deduction in other nations have been more mixed. Jappelli and Pistaferri (2007) study an Italian reform that changed the deduction from one linked to marginal rates to a flat deduction across all brackets. They find no effect on mortgage debt on either the extensive or intensive margins. Kleven & Schultz (2014) and Alan (2016) study the change in Danish tax policy. Kleven & Schultz (2014) estimate an elasticity of negative capital income that vary between -0.10 and -0.13 , while Alan (2016) find an elasticity of interest expenses of -0.07 with respect to the tax subsidy. De-Fusco and Paciorek (2014) investigated the relationship between the mortgage interest rate and a household's demand for mortgage debt. The study used detailed data of over 2.7 million mortgages to provide novel estimates of the interest rate elasticity of mortgage demand. The study also exploited a discrete jump in interest rates generated by the conforming loan limit - the maximum loan size eligible for securitization. The study found that a reduction in total mortgage debt of between 1.5 and 2 percent per percentage point increase in the interest rate.

Deposit Interest Rate Capping

Low interest rates on savings has been known to drive output production in many developed economies, as it creates enabling environment for private business expansion through the provision of easy access to capital for further production purposes. According to Mangeli (2012), interest on deposit usually finances investments in somewhere to live as well as purchases of other long-lasting goods through raising funds within credit market. These money transactions are too characterized through asymmetric information evils flanked by the borrowers (home) along with the lenders (banks). Consequently, households' capacity with/or conditions beneath which they are able to get hold of funds, for this reason their expenditure, are also prejudiced via their net worth. Since pragmatic in a large amount of households' borrowings are protected by real estate investment, the prose has been listening carefully above all on the effect of rate changes in residence investing values

Fixed Deposit Interest Capping

Dore, Makken and Eastman (2013) indicated that fixed savings account interest rates have strong consequences on overall average bank deposit and in most cases it is also affected by bank specific lending interest rates since it is customer deposits that are lent to private sector business with the expectations of returns on borrowed capital, making nominal interest rates to have a back-effect on fixed savings interest rates. According to Luis and Alvarez (2010), the influence of interest rate on investment scale is operate as the opportunity cost of investment on total investment, Under the condition of unchanged in investment income, the rising interest rates increase the cost of investment and then inevitably cause lower income investors to withdraw from the area of investment, so that the demand for investment is reduced. However, falling interest rates means that investment costs decline, thereby

stimulating investment and the total social investments increase.

Dore, Makken and Eastman (2013) in a study of the monetary transmission mechanism, non-residential fixed investment and housing established that the savings and demand deposits are volatile accounts because these accounts are easily introduced into by their owner. Time deposit is a much more predictable account because it has a definite time dimension attached to it. In our analysis it is important to recognize the fact that most savings are voluntary and depends on a wide range of factors particularly the level of income. i.e., the household, firms and government all save and that each of these three sectors uses savings to make investment. Giovanni (2012), argued that small economies are affected by conditions in large countries in that a high interest rate experienced in a large country has the concretionary effect on the annual real GDP growth in the domestic economy. But this effect is centered in countries with fixed exchange rates. The effects on interest rate in fixed deposits are through direct monetary policy channel and the general capital market or trade effect.

Financial Performance

The banking industry being a service industry means the success of individual financial institution as well as the industry a whole is based is built upon meeting the needs of the customers. For banks to survive in contemporary highly competitive environment they should be able to attract and retain customers. Globalization has greatly influenced modern banking. Regulatory factors such as interest rate capping, structural and technological factors all are significantly changing the banking environment throughout the world leading to intense competitive pressures (Grigoroudis, Politis and Siskos, 2010).. To meet customers' needs banks, need to understand what is valuable to them and how they make their decisions. Sometimes marketing planning of

organizations fail due to improperly identifying the factors or determinants that consumers consider in bank selection (Were &Wambua, 2013).

Generally, customer employ a number of process for product/service evaluation which eventually leads to the choice and of a particular product or service provider. Financial services are characterized by high levels of credence and experiential features thus making it difficult to evaluate them before consumption (Owusu, 2013). Thus to minimize the risk and uncertainty related to the purchase of a service customers rely on the tangible cues as evidence of service quality (Morley, 2012). Kotler and Keller (2006) observed that customers are becoming harder to please; they are smarter, more price conscious more demanding less forgiving and are approached by many more with equal or better offers. This is no different from retail customers in pursuit of financial services, most studies have concluded that customers show high preference for commercial banks unlike other banks due to the large branch network and the large size of the bank assets.

METHODOLOGY

The quantitative cross-sectional descriptive correlational survey design was used in this study since it allowed the collection of numerical and measurable data to address the research questions and represents a statistical approach that focuses on assessing the variance among naturally occurring variables (Fink, 2013; Cullen & Gordon, 2014; Kising'u, 2017; Tabachnick & Fidell, 2013). The collected data was analyzed quantitatively and qualitatively. Descriptive and inferential statistics was done using SPSS version 22 and specifically multiple regression model was applied. The researcher used a multiple regression analysis to show the influence of the independent variables on the dependent variables. The multiple regression equation was as follows;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon \dots\dots\dots \text{Equation 1}$$

Y = Represents the dependent variable, Financial Performance

β_0 = Intercept of regression line

$\beta_1 - \beta_4$ = Partial regression coefficient of the Independent Variables

X_1 = Short Loan Interest Capping

X_2 = Mortgage Interest Capping

X_3 = Deposit Interest Rate Capping

X_4 = Fixed Deposit Interest Capping

ϵ = error term or stochastic term.

Table 1: Study Hypothesis & Analytical Models

Hypothesis Statement	Hypothesis Test	Decision Rule and Anticipated
H01: Short loan interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya.	-Karl Pearson (Beta test) product moment. H0 : $\beta_1 = 0$ HA: $\beta_1 \neq 0$ -To conduct an F - test (ANOVA test) to assess overall robustness and significance of the regression model.	Reject H_{01} if P- value ≤ 0.05 otherwise fail to reject H_{01} if P- value is > 0.05 FINANCIAL PERFORMANCE= $\alpha + \beta_1 X_1 + \epsilon$ Where: FINANCIAL PERFORMANCE = aggregate mean score of Early Marriage $\alpha = y - \text{Intercept}$. β_1 = Regression coefficient(beta) Short Loan Interest Capping = aggregate mean score of FINANCIAL PERFORMANCE ϵ = error term- random variation due to other unmeasured factors
H02: Mortgage Interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya..	-Karl Pearson (Beta test) product moment. H0 : $\beta_2 = 0$ HA: $\beta_2 \neq 0$ -To conduct an F - test (ANOVA test) to assess overall robustness and significance of the regression model.	Reject H_{02} if P- value ≤ 0.05 otherwise fail to reject H_{02} if P- value is > 0.05 FINANCIAL PERFORMANCE = $\alpha + \beta_2 X_2 + \epsilon$ Where: FINANCIAL PERFORMANCE = aggregate mean score of Mortgage Interest Capping $\alpha = y - \text{Intercept}$. β_2 = Regression coefficient(beta) Mortgage Interest Capping = aggregate mean score of FINANCIAL PERFORMANCE ϵ = error term- random variation due to other unmeasured factors
H03: Deposit interest rate capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya.	-Karl Pearson (Beta test) product moment. H0 : $\beta_3 = 0$ HA: $\beta_3 \neq 0$ -To conduct an F - test (ANOVA test) to assess overall robustness and significance of the regression model.	Reject H_{03} if P- value ≤ 0.05 otherwise fail to reject H_{03} if P- value is > 0.05 FINANCIAL PERFORMANCE = $\alpha + \beta_3 X_3 + \epsilon$ Where: FINANCIAL PERFORMANCE = aggregate mean score of Deposit Interest Rate Capping $\alpha = y - \text{Intercept}$. β_3 = Regression coefficient(beta) Deposit Interest Rate Capping = aggregate mean score of FINANCIAL PERFORMANCE ϵ = error term- random variation due to other unmeasured factors
H04: Fixed deposit interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya.	-Karl Pearson (Beta test) product moment. H0 : $\beta_4 = 0$ HA: $\beta_4 \neq 0$ -To conduct an F - test (ANOVA test) to assess	Reject H_{04} if P- value ≤ 0.05 otherwise fail to reject H_{04} if P- value is > 0.05 FINANCIAL PERFORMANCE = $\alpha + \beta_4 X_4 + \epsilon$ Where: FINANCIAL PERFORMANCE = aggregate mean score of Fixed Deposit Interest Capping $\alpha = y - \text{Intercept}$. β_4 = Regression coefficient(beta) Fixed Deposit Interest

Kenya. overall robustness and significance of the regression model.

Capping = aggregate mean score of FINANCIAL PERFORMANCE ϵ = error term- random variation due to other unmeasured factors

RESULTS

Descriptive Results

In the research analysis the researcher used a tool rating scale of 5 to 1; where 5 were the highest and 1 the lowest. Opinions given by the respondents were rated as follows, 5= Strongly Agree, 4= Agree, 3 = Neither Agree nor Disagree, 2= Disagree and 1= Strongly Disagree. The analyses for mean, standard deviation were based on this rating scale.

Short Loan Interest Capping

The first objective of the study was to establish the effect of short loan interest capping on financial performance of commercial banks in Kericho County-Kenya. Respondents were requested to respond to a

Table 2: Short Loan Interest Capping

Short Loan Interest Capping	N	Mean	Std. Deviation
loan interest affects customer choice on the product	63	3.56	1.400
Interest variation affects loan uptake	63	3.60	1.289
Capping of loan interest initiates slow down on credit flow	63	3.86	1.120
Capping of loan interest decreases market loan segment	63	3.98	1.276

specific set of questions related to short loan interest capping and give their feedback and opinion. The opinion that loan interest affects customer choice on the product had a mean score of 3.56 and standard deviation of 1.400. The opinion that Interest variation affects loan uptake had a mean score of 3.60 and a standard deviation of 1.289. The opinion that Capping of loan interest initiates slow down on credit flow had a mean score of 3.86 and a standard deviation of 1.120. The opinion that Capping of loan interest decreases market loan segment had a mean score of 3.98 and a standard deviation of 1.276. Table 2 presented the descriptive results of short loan interest capping.

Mortgage Interest Capping

The second objective of the study was to establish the effect of mortgage interest capping on financial performance of commercial banks in Kericho County-Kenya. Respondents were requested to respond to a specific set of questions related to mortgage interest capping and give their feedback and opinion. The opinion that Capping brought about loan competition from informal sectors had a mean score of 3.71 and standard deviation of 1.237. The opinion that Capping

initiated a shift from interest income to other sectors of income had a mean score of 3.54 and a standard deviation of 1.446. The opinion that Capping negatively affected investment in the company shares had a mean score of 3.62 and a standard deviation of 1.349. The opinion that loans are advanced on near risk free clients due to capping had a mean score of 3.90 and a standard deviation of 1.341. Table 3 presented the descriptive results of mortgage interest capping.

Table 3: Mortgage Interest Capping

Mortgage Interest Capping	N	Mean	Std. Deviation
Capping brought about loan competition from informal sectors	63	3.71	1.237
Capping initiated a shift from interest income to other sectors of income	63	3.54	1.446
Capping negatively affected investment in the company shares	63	3.62	1.349
loans are advanced on near risk free clients due to capping	63	3.90	1.341

Deposit Interest Rate Capping

The third objective of the study was to establish the effect of deposit interest rate capping on financial performance of commercial banks in Kericho County-Kenya. Respondents were requested to respond to a specific set of questions related to deposit interest rate capping and give their feedback and opinion. The opinion that Capping led to low savings from the clients had a mean score of 3.43 and standard deviation of 1.445. The opinion that Capping saw

increase in withdrawing on saving had a mean score of 3.68 and a standard deviation of 1.479. The opinion that Capping affected negatively the working capital of the bank had a mean score of 3.78 and a standard deviation of 1.114. The opinion that Capping affected cash available for banks investment had a mean score of 3.87 and a standard deviation of 1.350. Table 4 presented the descriptive results of deposit interest capping.

Table 4: Deposit Interest Rate Capping

Deposit Interest Rate Capping	N	Mean	Std. Deviation
Capping led to low savings from the clients	63	3.43	1.445
Capping saw increase in withdrawing on saving	63	3.68	1.479
Capping affected negatively the working capital of the bank	63	3.78	1.114
Capping affected cash available for banks investment	63	3.87	1.350

Fixed Deposit Interest Capping

The fourth objective of the study was to establish the effect of fixed deposit interest capping on financial performance of commercial banks in Kericho County-Kenya. Respondents were requested to respond to a specific set of questions related to fixed deposit interest capping and give their feedback and opinion. The opinion that capping lead to decrease in fixed deposit had a mean score of 3.84 and standard deviation of 1.260. The opinion that capping lead to

decrease of available cash for investment had a mean score of 3.89 and a standard deviation of 1.220. The opinion that capping lead decrease in value of future flow had a mean score of 3.76 and a standard deviation of 1.399. The opinion that Capping weakened banks investment plans had a mean score of 3.94 and a standard deviation of 1.148. Table 5 presented the descriptive results of fixed deposit interest capping.

Table 5: Fixed Deposit Interest Capping

Fixed Deposit Interest Capping	N	Mean	Std. Deviation
Capping lead to decrease in fixed deposit	63	3.84	1.260
Capping lead to decrease of available cash for investment	63	3.89	1.220
Capping lead decrease in value of future flow	63	3.76	1.399
Capping weakened banks investment plans.	63	3.94	1.148

Financial Performance

The opinion that Interest capping contributes to changes on bank financial performance had a mean score of 3.86 and standard deviation of 1.342. The opinion that Interest rate ceilings negatively affected interbank lending had a mean score of 3.84 and a standard deviation of 1.285. The opinion that Capping

brought about loan competition from informal sectors had a mean score of 3.51 and a standard deviation of 1.447. The opinion that Capping negatively affected the end of year financial performance had a mean score of 3.29 and a standard deviation of 1.549. Table 6 presented the descriptive results of financial performance.

Table 6: Financial Performance

Financial Performance	N	Mean	Std. Deviation
Interest capping contributes to changes on bank financial performance	63	3.86	1.342
Interest rate ceilings negatively affected interbank lending	63	3.84	1.285
Capping brought about loan competition from informal sectors	63	3.51	1.447
Capping negatively affected the end of year financial performance.	63	3.29	1.549

Correlation Analysis**Table 7: Pearson Correlation**

Variable	Financial Performance	Short Loan Interest Capping	Mortgage Interest Capping	Deposit Interest Rate Capping	Fixed Deposit Interest Capping
Financial Performance	1				
	63				
Short Loan Interest Capping	.397**	1			
	.001	63			
Mortgage Interest Capping	.487**	.272*	1		
	.000	.031	63		
Deposit Interest Rate Capping	.291*	.326**	.441**	1	
	.021	.009	.000	63	
Fixed Deposit Interest Capping	.595**	.312*	.394**	.257*	1
	.000	.013	.001	.042	63
	63	63	63	63	63

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

* . Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis**Table 8: Coefficient of Determination (R2)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782 ^a	.612	.585	2.12432

a. Dependent variable: Financial Performance

b. Predictors: (Constant), Fixed Deposit Interest Capping, Deposit Interest Rate Capping, Mortgage ,Short Loan Interest Capping

Table 9: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	412.008	4	103.002	22.825	.000 ^b
	Residual	261.738	58	4.513		
	Total	673.746	62			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Short Loan Interest Capping, Mortgage Interest Capping, Deposit Interest Rate Capping, Fixed Deposit Interest Capping

Regression Coefficients

The multiple regression model for this study had been specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Where

Y = represents Financial Performance (the dependent variable)

β_0 = Intercept

β_1 = regression coefficient of Short Loan Interest Capping

β_2 = regression coefficient of Mortgage Interest Capping

β_3 = regression coefficient of Deposit Interest Rate Capping

β_4 = regression coefficient of Fixed Deposit Interest Capping

X_1 = Short Loan Interest Capping

X_2 = Mortgage Interest Capping

X_3 = Deposit Interest Rate Capping

X_4 = Fixed Deposit Interest Capping

ϵ = stochastic term

Therefore, the predictive multiple regression model for this study then becomes:

$$Y = 5.501 + 0.578X_1 + 0.673X_2 + 0.313X_3 + 0.201X_4$$

The regression equation above has established that taking all factors into account (financial performance as a result of short loan interest capping, mortgage interest capping, deposit interest rate capping and

fixed deposit interest capping) constant at zero financial performance was 5.501. The findings presented also shows that taking all other independent variables at zero, a unit increase in short loan interest capping will lead to a 0.578 increase in the scores of financial performance; a unit increase in mortgage interest capping will lead to a 0.673 increase in financial performance; a unit increase in deposit interest rate capping will lead to a 0.313 increase in the scores of financial performance; a unit increase in fixed deposit interest capping will lead to a 0.201 increase in the score of financial performance. This therefore implied that all the four variables have a positive relationship with mortgage interest capping contributing most to the dependent variable. From the table it can be seen that the predictor variables of financial performance as a result of short loan interest capping, mortgage interest capping, deposit interest rate capping and fixed deposit interest capping got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05. Table 10 presented the multiple regression coefficients results on the effect of interest rate capping (short loan interest capping, mortgage interest capping, deposit interest rate capping and fixed deposit interest capping), and the financial performance in commercial banks in Kericho County, Kenya.

Table 10: Multiple Regression Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	5.501	2.439		2.255	.028
1 Short Loan Interest Capping	.578	.111	.530	5.187	.000
Mortgage Interest Capping	.673	.149	.461	4.502	.000
Deposit Interest Rate Capping	.313	.145	.210	2.163	.035

Fixed Deposit Interest Capping	.201	.108	.194	2.862	.002
--------------------------------	------	------	------	-------	------

a. Dependent Variable: Financial Performance

Results of Hypotheses Testing

The first research hypothesis, **H₀₁**: Short loan interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya. ($\beta = 0.530$; $t = 5.187$; $p \leq 0.05$) was rejected and conclusion made that there was a statistically significant effect of short loan interest capping on financial performance of commercial banks in Kericho County-Kenya. This was consistent with Amalia, Robert and Harald (2013) who carried out an investigation of the interest rate risk and exchange rate risk of the European Financial Sector: Euro Zone Versus Non-Euro Zone Countries. Their paper examined the impact of the European Union and the introduction of the euro on European financial sector risk in the framework of a comparative analysis of financial sector returns across three broad groupings (Banking, Financial Services and Insurance) for a representative group of key euro and non-Eurozone countries. They established that while Banks are more sensitive to short-term interest rates, the Financial Services and Insurance sectors are more sensitive to long-term interest rates. According to their results, there is no notable trend in sensitivity pre-/post-euro and differences in terms of the impact of interest rate changes across countries seem to suggest some evidence of integration, and differences in financial structures and regulation. Further, interest rate sensitivity increases significantly with increasing time intervals. Evidence of exchange rate exposure is weak across all countries and sectors although there is some evidence that it increases with increasing time intervals. Differences in sensitivity can be related to differences in international activities.

The second research hypothesis, **H₀₂**: Mortgage Interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya. ($\beta = 0.461$; $t = 4.502$; $p \leq 0.05$) was rejected

and conclusion made that there was a statistically significant effect of Mortgage Interest capping on financial performance of commercial banks in Kericho County-Kenya. This was consistent with Jiaqi (2011) who conducted a study aimed at establishing a modelling process of short-term interest rate risk management for the South African Commercial Banking Sector. The lending rates of most South African commercial banks are tied to the prime overdraft rate. The borrowing rates are linked to the money market rates such as the Johannesburg Interbank Agreed Rate (JIBAR) which is indirectly affected by the prime overdraft rate. Hence, lending and borrowing rates are related to the repo-rate. The study carries a review of the bank risk management processes, and then discusses the enterprise risk management framework that guides the formation of the risk management processes and systems. In order to benchmark against international risk management practices, a comparative analysis is carried out to evaluate the risk management tendencies of bank risk management in South Africa and globally. The empirical findings reveal that most banks (i.e. eighty per cent of all local banks) manage the short-term interest rate risk by following the same process as the interest rate risk in general. The key elements (risk identification, measurement, mitigation and monitoring and reporting) of the banking book interest rate risk management are not linked together as a systematic process. This is not in line with the Basel II Accord to manage market risks through a process approach.

The third research hypothesis, **H₀₃**: Deposit Interest rate capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya. ($\beta = 0.210$; $t = 2.163$; $p \leq 0.05$) was rejected and conclusion made that there was a statistically significant effect of deposit Interest rate capping on financial performance of commercial banks in Kericho

County-Kenya. This was consistent with Wambua (2013) who conducted a study on the effect of interest rate volatility on financial performance of class “a” road construction companies in Nairobi County. Applying a descriptive research design, the study used of secondary data. A regression model was used to determine the relationship between returns of the companies and four factors, namely, interest volatility, working capital, growth and age. The study found that age of the companies had a significant and positive effect on return. However, the regression analyses per company showed no statistically significant relationship between return and interest volatility, working capital and growth. The relationship between interest volatility, working capital and growth and return was weak and statistically insignificant for all the 16 companies in the sample. The study consequently recommends putting in place policies to make these companies competitive irrespective of their age in order to make the road construction business competitively cheaper without compromising quality.

The fourth research hypothesis, **H₀₄**: Fixed deposit Interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya. ($\beta = 0.210$; $t = 2.163$; $p \leq 0.05$) was rejected and conclusion made that there was a statistically significant effect of Fixed deposit Interest capping on financial performance of commercial banks in Kericho County-Kenya. This was consistent with Kipngetich

(2011) who investigated the relationship between interest rates and financial performance of commercial banks in Kenya. To achieve the objective of the study regression models were developed using financial performance as the independent variable and interest rates as dependent variables. In the model ROE was defined as the profitability indicator. Secondary data was collected from published reports for a period of five years between 2006 and 2010. The findings and analysis reveal that interest rates have an effect on financial performance of commercial banks in Kenya. The study used regression analysis to establish the relationship between interest rates and ROE. The results obtained from the regression model shows that there is a positive relationship between interest rates and financial performance of commercial banks in Kenya. Banks should therefore prudently manage their interest rates to improve their financial performance. The analysis shows that the effect of interest rates on profitability is not significant in the short term for all the banks. In view of this the other factors which influence profitability needs to be enhanced to improve the financial performance of commercial banks in Kenya. Table 11 presented the research hypotheses results on the effect of interest rate capping (short loan interest capping, mortgage interest capping, deposit interest rate capping and fixed deposit interest capping), and the financial performance in commercial banks in Kericho County, Kenya.

Table 11: Hypotheses Testing

Research Hypothesis	β	t	Sig.	Comments
H₀₁ : Short loan interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya	.530	5.184	.000	Reject H ₀₁
H₀₂ : Mortgage Interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya	.461	4.502	.000	Reject H ₀₂
H₀₃ : Deposit Interest rate capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya	.210	2.163	.035	Reject H ₀₃
H₀₄ : Fixed deposit Interest capping has no significant effect on financial performance of commercial banks in Kericho County-Kenya.	.194	2.862	.002	Reject H ₀₄

CONCLUSION

From the research findings, the study concluded that short loan interest capping had an effect on financial performance of commercial banks in Kericho County-Kenya. The conclusion was that majority of the respondents found salary advance, mobile loans and internet loans as key sub-variables affecting short loan interest capping and thus having an impact on financial performance of commercial banks in Kericho County-Kenya. The findings concluded that salary advance, mobile loans and internet loans had a very strong effect on the financial performance of commercial banks in Kericho County-Kenya. Thus from the study results it was generally concluded that there was a high degree of positive significance on effect of short loan interest capping on financial performance of commercial banks in Kericho County-Kenya.

From the research findings, the study concluded that mortgage interest capping had an effect on financial performance of commercial banks in Kericho County-Kenya. The conclusion was that majority of the respondents found mortgage buying, mortgage operation and mortgage accessibility as key sub-variables affecting mortgage interest capping and thus having an impact on financial performance of commercial banks in Kericho County-Kenya. The findings concluded mortgage buying, mortgage operation and mortgage accessibility had a very strong effect on the financial performance of commercial banks in Kericho County-Kenya. Thus from the study results it was generally concluded that there was a high degree of positive significance on effect of mortgage interest capping on financial performance of commercial banks in Kericho County-Kenya.

From the research findings, the study concluded that deposit interest rate capping had an effect on financial performance of commercial banks in Kericho County-Kenya. The conclusion was that majority of

the respondents found deposit level, operation level and account levels as key sub-variables affecting deposit interest rate capping and thus having an impact on financial performance of commercial banks in Kericho County-Kenya. The findings concluded deposit level, operation level and account levels had a very strong effect on the financial performance of commercial banks in Kericho County-Kenya. Thus from the study results it was generally concluded that there was a high degree of positive significance on effect of deposit interest rate capping on financial performance of commercial banks in Kericho County-Kenya.

From the research findings, the study concluded that fixed deposit interest capping had an effect on financial performance of commercial banks in Kericho County-Kenya. The conclusion was that majority of the respondents found operation level, deposit level and operation cost as key sub-variables affecting fixed deposit interest capping and thus having an impact on financial performance of commercial banks in Kericho County-Kenya. The findings concluded that found operation level, deposit level and operation cost had a very strong effect on the financial performance of commercial banks in Kericho County-Kenya. Thus from the study results it was generally concluded that there was a high degree of positive significance on effect of fixed deposit interest capping on financial performance of commercial banks in Kericho County-Kenya.

RECOMMENDATIONS

The study recommended that the regulator should do away with interest rate capping policies and let the market forces to take place and thus allowing banks and clients through the prevailing economic environment to create interest rate levels and allow banks to release more credit facilities to customers thus earning income from interest.

Throughout the financial history, banks play an important role in the financial system as they

mobilize savings and demand deposits and extend credit thus they turn illiquid assets into liquid asset). They also facilitate improvement in the society's living standards by supporting various market activities such as trading activities, channeling of financial resources between savers and borrowers and issuing required financial resources to reduce risk and uncertainty in the economy as a whole. Therefore the macro and microeconomic elements have huge impact in on financial performance of commercial banks thus the formulation of any policy should factor in the commercial banks performance and the their impact to the general economy.

An international trade involves different currencies; the variability of interest rates is a potentially interesting factor that drives the level of profitability of commercial banks as it affects their financial intermediation process. Because there is no country that is self-reliant but instead they all transact business with one another, foreign exchange rates become handy. The main function of commercial banks is to mediate between supply side and the

demand side of the foreign currency, any restrictions on how commercial banks go about their business would affect their financial performance.

Increased discount rate has a single direct effect, that is, it becomes more expensive for banks to borrow money from the CBK. However, increasing the discount rate can also cause a ripple effect, and factors that influence both individuals and businesses are affected. An increased discount rate means banks should increase their rates that they charge their customers to borrow money thus lead to an increase in their performance but decrease in credit uptake, thus the handling of interest rate capping should be carefully managed.

Areas for Further Studies

The current study was based on a limited sample and therefore the results could not be generalized to other parts of Kenya especially in the analytical terms. Further research done on a bigger scale with a large sample size could shed light on factors influencing financial performance of commercial banks.

REFERENCES

- Adeleye, N., Osabuohien, E., Bowale, E., Matthew, O., & Oduntan, E. (2018). Financial reforms and credit growth in Nigeria: empirical insights from ARDL and ECM techniques. *International Review of Applied Economics*, 32(6), 807-820.
- Ajayi, F. (2012). Monetary policy and bank performance in Nigeria: A two-step Counteraction approach. *African Journal of Scientific Research*, 9(1), 462-454.
- Chirwa, E., & Mlachila, M. (2014). Financial reforms and interest rate spreads in the Commercial Banking System in Malawi. *IMF Staff Papers*, 51, 96-122.
- Corb, H. (2011). *Interest rate spread*. Washington, D.C: International Monetary Fund.
- D'Souza, J. (2016). *Capping of Interest Rates in Kenya. What next for the banks?*. Nairobi: Apex Africa Capital LTD.
- Corb, H. (2012). *Interest rate swaps and other derivatives*. New York: Columbia Business School.
- Crowley, J. (2007). *Interest Rate Spreads in English-Speaking Africa. IMF Working Paper. April 2007*, 123-45.
- Diamond, D., & Dybvig, P. (2013). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, 91, 401-419.

- Donaldson, L., Qiu, J., & Luo, B. (2013). For rigor in organizational management theory research. *Journal of Management Studies*, 50, 153-172.
- Flannery, M. (2011). Market interest rates and commercial bank profitability: An empirical investigation. *Journal of Finance*, 12, 1085-1101.
- Friedman, B., & Kuttner, K. (2010). *Implementation of monetary policy: How do central banks set interest rates?* In B. Friedman & M. Woodford (Eds.), *Handbook of monetary economics: Vol. 3* (pp. 1345-1438). Amsterdam, the Netherlands: Elsevier Science.
- Glocker, C., & Pascal T. (2012). *The Macroeconomic Effects of reserve requirements*. WIFO Working Paper No. 420, Banque de France, Paris.
- Golin, J. (2011). *The Bank Credit Analysis Handbook: A Guide for analysts, bankers and investors*. John Wiley & Sons (Asia).
- Gutu, M. L. (2015). Microeconomic Factors affecting banks' financial performance: The case of Romania: Bucharest University of Economic Studies. *SEA Practical Application of Science*, 1(7) 13-27.
- Khan, W. A. (2014). Impacts of inflationary trends on banks' performance in Pakistan. *International Journal of Accounting and Financial Reporting*, 4(1), 296-306.
- Kising'u, T. M. (2017). *Role of strategic leadership for sustainable competitive advantage in Kenyan Public and Private Universities* (Doctoral dissertation, JKUAT-COHRED).
- KRP. (2016). *Banking Acts Kenya Gazette Supplement No. 143*. Nairobi: Government Printer.
- Kipngetch, K. (2011). *The relationship between interest rates and financial performance of commercial banks in Kenya* (Unpublished MBA project, University of Nairobi).
- Mbua, S. N. (2017). *Effect of interest rates capping by the Central Bank of Kenya on the banks listed on the Nairobi Securities Exchange* (Masters' research project, Chandaria School of Business, United States International University – Africa).
- Miller Jr, T. W., & Black, H. A. (2016). Examining arguments made by interest rate cap advocates. *Reframing Financial Regulation: Enhancing stability and protecting consumers*, 346-350.
- Montoro, C., & Moreno, R. (2011). Reserve requirements instrument policy in Latin America, March.
- Moosa, I. A., & Bhatti, R. H. (2010). *The theory and empirics of Exchange Rates*. World Scientific Inc, Portland.
- Mugenda, O., & Mugenda, A. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press, Nairobi.
- Mwanza, J. (2007). *The effect of derivative activities on interest rate risk exposure on banks listed at the Nairobi Stock Exchange* (Unpublished MBA project, University of Nairobi).
- Ndungu, C. (2013). *Determinants of Commercial Banks Profitability in Kenya* (Unpublished MBA research project, University of Nairobi).

- Ngari, (2013). *The relationship between interest rates spread and the financial performance of commercial banks in Kenya* (Unpublished MBA research project, University of Nairobi).
- Oloo, O. (2009). *The banking survey 2009*. Think Business. Nairobi.
- Olweny, T., & Shipho, T. (2011). Effects of banking sector factors on the profitability of commercial banks in Kenya. *Economics and Finance Review*, 1(5), 1-30.
- Orji, A., Aguegbah, E., & Anthony-Orji, O. I. (2015). Real sector output and financial liberalisation in Nigeria. *Journal of Infrastructure Development*, 7(2), 136-150. .
- Osuagwu, E. S., & Nwokoma, N. (2017). Empirical assessment of the competitive conduct of Nigerian banks in a post-consolidation era. *Research in International Business and Finance*, 41, 412-422.
- Osuagwu, E. (2014). Determinants of bank profitability in Nigeria. *International Journal of Economics and Finance*, 6(12), 46-63.
- Otuori, O. H. (2013). Influence of exchange rate determinants on the performance of commercial banks in Kenya. *European Journal of Management Sciences and Economics*, 1(2), 86-98.
- Owidhi, G. (2016). *The best economic sacrifice for Kenya: Capping Interest Rates*.
Nairobi: COTU (K).
- Saona, P. (2011). Determinants of the profitability of the U.S banking industry. *International Journal of Business and Science*, 2(22), 255-269.
- Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson Education.
- Were, R., & Wambua, S. (2013). *Determinant of interest rate spread*. Nairobi, Kenya: Kenya Institute for public policy research and analysis.