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THE EFFECT OF INTEREST RATE CAPPING ON PROFITABILITY OF COMMERCIAL BANKS IN KENYA

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Abstract

The objective of the study was to establish the effects of interest rate capping on profitability of commercial banks in Kenya. This study adopted a descriptive study design. This study focused on all the 41 commercial banks which are fully registered by Central Bank of Kenya (CBK) as at 31 December 2017. The study used secondary data on interest rate capping and profitability of commercial banks from financial annual reports of all the respective banks and in the CBK website for the year 2017. The study was carried for period of five years, from 2013 to 2017 financial years. The obtained data was analyzed using Microsoft Excel and SPSS and then presented in graphs, tables and pie charts to enable effective and efficient interpretation. Regression equation was used to establish the effects of interest rate capping on profitability of commercial banks in Kenya. The ANOVA test was done to determine firstly, the effect of independent variables on the dependent variable and secondly, test the mean score differences and then use T – statistic test to establish the likelihood that there is a link between interest rate capping and profitability which are the main data variables. The study revealed that interest rate capping had effects on profitability of commercial banks in Kenya. The study further established that interest rate capping had a negative effect on profitability of commercial banks in Kenya. The study revealed that, a unit increase in GDP (Economic Growth) and Bank Total Assets would lead to an increase in profitability of commercial banks in Kenya and a unit increase in Interest Rate Cap, Foreign Exchange Rate, and Inflation Rate would lead to a decrease in profitability of commercial banks in Kenya. The study recommends that there is need for the ministry of finance and the Central Bank of Kenya to revisit interest rate cap to ensure that it favors both the borrowers and the lenders to ensure that the banks become profitable and borrowers can access funds at affordable rates which would in turn lead to growth in the country's economy. The study also recommends that banks should be very cautious when they are determining interest rate for their loans because low interest rate will lead to decrease their returns and increased interest rate will reduce the number of borrowers. The study recommends that the government should provide a conducive environment that promotes growth as well as development of businesses. This will ensure that the people are able to improve their livelihood and earn more income where the surplus is banked and therefore providing the banks with additional income to provide loans and in return increase its profitability.

Key words: Interest Rate, Capping, Profitability and Commercial Banks

Background of the Study

Commercial Banks play a pivotal role in the distribution and allocation of economic resources of a Country. As intermediaries, banks facilitate movement of funds from depositors to borrowers (Ongore, 2013). In order to perform the intermediation function properly, banks must generate income sufficient enough to cover their operational costs incurred in the process (Dietrich & Wanzenried, 2011). In 2016 Members of Parliament passed a bill to amend the Banking Act in August 2016 which imposed restrictions on the interest rates at which banks should offer loans setting a cap on the lending rate and the rate at which banks can take deposits setting a floor on the interest rate payable for deposits. The Amendment led to an interest rate lending cap of no more than four percent above the Central Bank Rate (CBR) and a floor on the deposit rate at no less than seventy percent of the Central Bank Rate. It is important to understand the effect of regulation of interest rates on the profitability of banks.

This study will be guided by rent seeking theory and free market theory as it seeks to establish the effects of interest rate capping on profitability of commercial banks in Kenya. According to Adam Smith in 1776 rent-seeking means that organizations are out to make financial gains at the expense of clients by manipulating the trade environment. Adam Smith indicated that imposing policies meant to protect the poor is a bad move for the economy. Milton Friedman in the year 1962 advocated for a free market system as he indicated that money in circulation would grow as the economy grew as opposed to situations where money supply was controlled by the government. Gelfond (2001) highlights that the central bank money is not an exclusive product compared to other goods and services in the institutions that do not advocate for capping of interest rates bring out the theory of failing the free market.

The banking sector plays a key role in provision of financial services to clients since their establishment. Despite the huge role entrusted on them, the interest rate charged by the sector has been high ranging from 20-30%. The huge interest rate raised concerns with policy makers whose aim is protecting consumers from exploitation leading to the capping of interest rates. The announcement that the president had signed the bill capping interest rates came with a lot of uncertainty. There had been vast speculation on the effect that it would have both negatively and positively (Aligonby, 2016). Speculations included that people with low incomes would flood the banking halls in a bid to get cheap credit. This study sought to establish the effects of interest rate capping on profitability of commercial banks in Kenya.

Research Problem

The financial strength of a banking institution is unquestionably associated to its profitability, thus, the most important need of any bank's management is to make profits on a continuous basis since this will guarantee bank's continuous existence (Adeusi, Kolapo & Aluko, 2014). However the banking sector is facing some pressures like liquidity and solvency problems which have considerable impact on the profitability of the banking sector and financial system. As banks are operating in very competitive environment, it has become obligatory to pay handsome interest rates to depositors to attract liquidity. To make banking system stable requires stable macroeconomic environment which adds to efficient and effective growth of savings and investment decision.

Interest rate capping in Kenya was officially introduced through the Banking (amendment) act 2016 which was an act parliament passed to bring in caps as a result of failures in previous attempts to bring the cost of credit down and the mounting pressure from the public to have low cost of credit and cut on the 'abnormal' profits that financial institutions were making (Hansard March 10th, 2016). Significant areas addressed by the act which affect the

profitability of commercial banks was on the maximum interest rate chargeable for a credit facility in Kenya at no more than four percent the base rate (CBR) as well as the minimum interest granted on a deposit held in interest earning account in Kenya to at least seventy percent, the base rate (CBR) as set and published by the CBK. This as a consequence affected interest income which is determined by the interest rate chargeable on loans. Altering the two important parameters of intermediation of lending and deposit rates must definitely had an impact on profitability with non-interest income being the only element left to navigate around to sustain profitability in the wake of anticipated reduced income from loans and deposits though there was another thought that their earnings might increase as a result of increased loan advancements due to affordable credit in the market.

It is therefore important to note that Interest rate capping has been one of the major reasons why commercial banks have recently recorded reduced interest rate spreads as highlighted in the Cytonn Investments banking sector report (2017). The report shows that listed banks recorded negative earnings per share (EPS) growth in the first half of 2017 compared to an average positive growth of 15.5% in the first half of 2016. Results posted by three banks NIC Bank, Stanbic Bank and KCB Group at the end of the first quarter of 2016 showed that the effects of interest rate capping were becoming more visible in the banking sector with each banking record a decline in their core earnings (Indenje, 2017).

Empirical studies in Kenya include; Osano and Gekara (2018) studied on the effect of government regulations on profitability of commercial banks in Kenya. The study found that there exist a positive relationship between interest rate cap and profitability of commercial banks in Kenya. Mbua (2017) studied on the effect of interest rates capping by the central bank of Kenya on the banks listed on the Nairobi Securities Exchange. The study found that there was a negative correlation between lending rates and stock prices. Ng'ang'a (2017) did a study on the impact of interest rate capping on the financial performance of commercial banks in Kenya. The study found that interest rate spread had a negative impact on the financial performance of commercial banks in Kenya. Okwany (2017) studied on the effect of interest rate capping on operating performance indicators of commercial banks in Kenya: a case study of KCB bank limited. The study found that interest rate capping decreased credit uptake, led to a reduction in the number of approved loan facilities, increased selection criteria for new loans and had an effect on increase in non-performing loans.

Having commercial banks that function fully by fulfilling their mandate in the economy is vital and must be accorded the importance it deserves. To the researcher knowledge there is limited empirical evidence on the effects of interest rate capping on profitability of commercial banks in Kenya. This study sought to fill the existing research gap by answering the follow research questions? What are the effects of interest rate capping on profitability of commercial banks in Kenya?

Research Objective

To establish the effects of interest rate capping on profitability of commercial banks in Kenya

Theoretical Review

The study was guided by the liquidity preference theory, loanable funds theory and Ricardo's principle of political economy theory as it sought to establish the effects of interest rate capping on profitability of commercial banks in Kenya.

Liquidity Preference Theory

The theory was developed by Keynes in 1891 in his book General Theory of Employment. Keynes argued that individuals value money for the transaction of current business and its use as store of value. Keynes highlighted three reasons for holding money; the transaction motive, precautionary motive and speculative motive. The transaction motive is whereby individuals keep money so as to have enough money for transaction purposes. The wealthy will obviously keep more money for this motive as their needs are more than their poor counterparts.

The theory suggest that investors demand high interest rate for long term securities because they carry higher risk in that they cannot be changed into cash quickly when other well rewarding investment opportunities are available. In this scenario the investors demand premium for the risk taken. The short term securities on the other hand have lower interest rate because the sacrifice for liquidity is less than the long term securities. In relation to our study, if banks perceive the interest rate control as short run measure they will ration credit issued in the hope in the long run the market driven approach will be rolled back. The caps on interest rate means the cost of capital is low and so investors are likely to be more liquid for the three reasons raised above than when the interest rate are high.

Loanable Funds Theory

This theory was first advanced by Swedish economist Wicksell (1851-1926). Other economists including Myrdal, Lindahl, Ohlin, Robertson and Vinerin 1930s added on theory. 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 loanable funds is determined by four 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. At this point the demand and supply of loanable funds are equal.

In relation to the study, introduction of the interest rate cap will distort the market forces of supply and demand as the latter will suppress the prevailing supply and the banks will not be able to give funds to all parties who need them. This will result to credit rationing as banks treat the prevailing interest rate low for the kind of existing demand. They will selectively give credit to those persons deemed less risk and avoid risky lending they may have been doing as the returns may not be able to cover the non-performing loans. This will adversely affect the profitability of banks

Ricardo's Principle of Political Economy Theory

This theory states that interest of money is not regulated by the rate at which the bank will lend, but by the rate of profit which can be made by employment of capital and which is entirely independent of the quantity of the value of money. The Ricardian theory clearly explains that there will be only one rate of interest that is compatible with full employment in the long run, and that for banks to make money there needs to be a measure of comparison between the rate of profits to be made and the rate of interest they intend to lend it. However, the theory overlooks the fact that even in the long period, the volume of employment is not necessarily full but is capable of varying, and to every banking policy, and there is a corresponding long period of employment amongst which corresponds to different conceivable interest rate policies on the part of monetary authority. In relation to the study banks will lend at interest rate which will increase their profitability.

Empirical Review

Maimbo and Gallegos (2014) did a stock take on the countries engaged in putting ceilings or floors on the interest rates and found that it is a widespread phenomenon. 40 developing countries including transitional countries were found to practice interest rate capping. The European Union was seen to have 14 of its member states have used interest rates caps by the year 2010. The study indicated that the key reason countries impose caps is the protection of its consumers from high-interest rates as was seen in Spain. Countries such as Greece and the United Kingdom imposed interest rate caps with the aim of limiting the freedom enjoyed by the banking sector that was leading to the exploitation of consumers. Countries such as Zambia imposed a cap on the interest rate to mitigate the risk that was perceived due to high levels of debt in the country and high levels of credit. The cap meant that the underserved clients can access credit.

Interest rate capping in South Africa was seen to be evaded by most of the financial institutions by the creation of other services such as insurance. They, therefore, reduced the levels of transparency on the cost of credit from the regulators (Helms & Xavier, 2014). In the country, the caps saw microfinance institutions withdrawing from giving loans to remote areas and thus limiting the amounts available for consumption and investment in the country. Laeven (2003) did a study on the capping of interest rates in the United States and indicated that imposing liberal measures such as eliminating interest rates caps had a positive impact on the ability of small investors to access funding. The study further reported that investors tend to migrate to countries with fewer restrictions on interest rates.

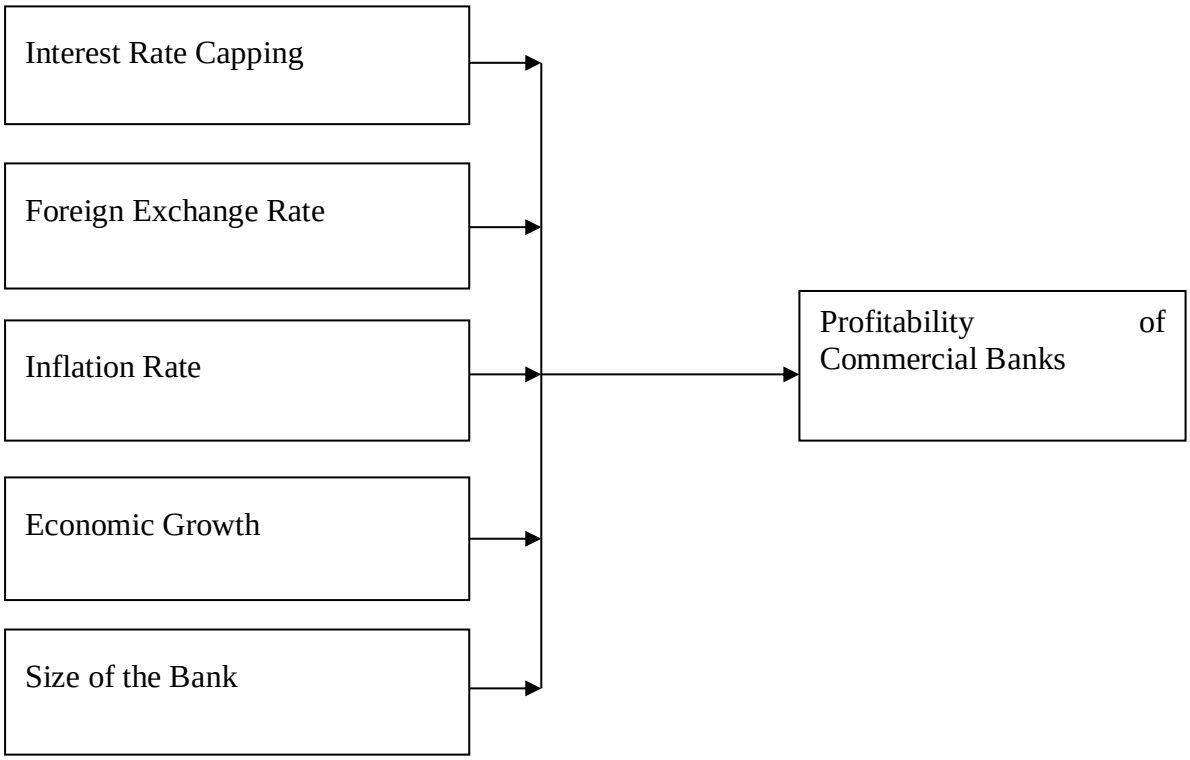
Capping of interest rates in the United States pushed down the profitability of banks and thus influencing their prices in the stock market. The move forced the banks in the region to seek alternative investment strategies to remain profitable (Irresberger, Mühlnickel & Weis, 2015). Financial reforms through such tactics as capping the interest rates were seen to increase investor confidence in countries such as Pakistan which consequently brought an improvement in the valuation of shares in the country (Zaman *et al.*, 2013). Studies on reforms of interest rates intervention in the neighboring country Tanzania were seen to bring in a positive influence on the economy. According to studies, reforms on the interest rates influenced financial deepening in the country though minimally. Nigeria was seen to be positively influenced by interest rate capping as the performance of the banks and consequently the stock prices improved (Nkwoma, 2014).

Kibobo (2017) studied on the relationship between interest rate capping and performance of financial institutions in Kenya, a case study of equity bank. The research ought to answer the research questions of the study giving specific objectives. The researcher adopted use of a descriptive design with a target population of 96 Equity bank staff and customers. Stratified sampling method was used. Primary and secondary data were collected where interviews and questionnaires formed the main collection methods. Descriptive analysis included weighted averages, and percentages and data was represented infrequency tables, bar graphs and pie charts. The study found out that banks are focusing on mobile banking and government lending to counter the risk effects, while KBA is seeking to repeal the law; the central bank has been vocal on their willingness to retain the law. The study concluded that interest rate capping is not a long-term measure and recommends better policies and other applicable measures.

Mbua (2017) studied on the effect of interest rates capping by the central bank of Kenya on the banks listed on the Nairobi Securities Exchange. The research design for this study was observational survey and data was collected using checklists. Inferential statistics was used to

study the correlations between the various variables. The study found that there was a negative correlation between lending rates and stock prices in third and fourth quarter of 2015 and a positive correlation between lending rates and stock prices in third and fourth quarter of 2016. The study found that the lending interest rates in 2015 did not significantly affect shares volume of almost all banks compared to 2016 where the Pearson correlation values were negative in the third and fourth quarter. The study found that in the month of August 2016 which is thirty days before the announcement that the capping of interest rates had been made into law, there was normal movement in the share prices and share volumes traded for the listed banks.

Conceptual Fretwork



Research Methodology

This study adopted a descriptive study design. The reason for using descriptive study in this research is because it is widely used to demonstrate associations between variables and especially in studies involving collection of data using existing record. This study focused on all the 41 commercial banks which are fully registered by Central Bank of Kenya (CBK) as at 31 December 2017.

The study used secondary data on interest rate capping and profitability of commercial banks from financial annual reports of all the respective banks and in the CBK website for the year 2017. The study was carried for period of five years, 2013, 2014, 2015, 2015, 2016 and 2017 financial years. The obtained data was analyzed using Microsoft Excel and the Statistical Package for Social Sciences (SPSS) and then presented in graphs, tables and pie charts to enable effective and efficient interpretation.

To establish this relationship the study formulated the following regression equation. Model developed by Shojai (1999) is used in this paper to establish the effects of interest rate capping on profitability of commercial banks in Kenya. The linear regression equation that was used

sought to establish the effects of interest rate capping on profitability of commercial banks in Kenya is in the following form:-

$PROF= \alpha_0 + \beta_1 INTC + \beta_2 FOR + \beta_3 INFL + \beta_4 GDP + \beta_5 BSZ + e$

Where; PROF= the measure of the profitability of the bank. This was measured by ROA of the bank;
α_0 = a constant term which is the intercept of the regression equation;
β = the coefficient of the variables where βi represents the sensitivity of a bank i's profitability to changes in the movements of the various variables;
INTC= is the measure of interest rate cap measured by the interest rate issued by central bank of Kenya bank;
FOR = is the measure of foreign exchange which was measured using the foreign exchange rate.
INFL= is the measure of inflation which measured the countries inflation rate.
GDP = is the measure of the country's economic growth which was measured using Country GDP.
BSZit = the size of the bank which was measured using the log to banks total assets
u = Stochastic Error Term
i and t represent the bank and time respectively.

To test for Significance, Regression analysis was used. The ANOVA test was done to determine firstly, the effect of independent variables on the dependent variable in the regression analysis and secondly, test the mean score differences and then use T – statistic test to establish the likelihood that there is a link between interest rate capping and profitability which are the main data variables. A significance level of 5% was used.

Data Analysis, Findings And Discussion

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Interest Rate Cap	205	.17	.76	.3157	.12813
GDP (Economic Growth)	205	.03	2.03	.2581	.33551
Foreign Exchange Rate	205	.04	.94	.2733	.18814
Inflation Rate	205	.00	.44	.1184	.11334
Bank Total Assets	205	.44	3.04	.8613	.51698
Profitability (ROA)	205	.67	1.27	.4011	.49977

From the findings, the study found that there was mean of 0.3157 for Interest Rate Cap, 0.2581 for the GDP, 0.2733 for foreign exchange rate, 0.1184 for inflation rate, 0.8613 for banks total assets, and 0.4011 for profitability.

Correlations Analysis

Pearson product moment correlation was conducted to determine the strength of relationship between the study variables.

		Profitability	GDP	Foreign Exchange Rate	Inflation Rate	Bank Total Assets	Interest Rate Cap
Profitability	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	205					
GDP	Pearson Correlation	.709**	1				
	Sig. (2-tailed)	.000					
	N	205	205				
Foreign Exchange Rate	Pearson Correlation	.745**	.402	1			
	Sig. (2-tailed)	.000	.000				
	N	205	205	205			
Inflation Rate	Pearson Correlation	-.330**	.270	.093	1		
	Sig. (2-tailed)	.003	.116	.597			
	N	205	205	205	205		
Bank Total Assets	Pearson Correlation	716**	.208	.237	.238	1	
	Sig. (2-tailed)	.013	.065	.070	.000		
	N	205	205	205	205	205	
Interest Rate Cap	Pearson Correlation	-.740**	.367	.275	.621	.224	1
	Sig. (2-tailed)	.004	.008	.007	.000	.000	
	N	205	205	205	205	205	205

From the findings on the correlation analysis between profitability and various aspects of banks regulation, the study found that there was positive correlation coefficient between profitability and GDP as shown by correlation factor of 0.709, the study also found a positive correlation between profitability and foreign exchange rate as shown by correlation coefficient of 0.745, the study also found a positive correlation between profitability and bank total assets as shown by correlation coefficient of 0.716. However, association between profitability and interest rate cap was found to be negative relationship as shown by correlation coefficient of -0.740, and association between profitability and inflation rate was found to be negative as shown by correlation coefficient of -0.330.

Regression Analysis

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.851[a]	.724	.711	2.01670	.711	2.619	.015[b]

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.711 an indication that there was variation of 71.1% on profitability of commercial banks in Kenya due to changes in Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets at 95% confidence interval. This shows that 71.1% changes in profitability of commercial banks in Kenya could be accounted for by changes in Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.851.

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.808	5	0.562	9.425	.001[b]
	Residual	11.858	199	0.060		
	Total	**14.666**	**204**			

From the ANOVA statistics above, the study established the regression model had a significance level of 0.001 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 0.05. The calculated value was greater than the critical value (2.260<9.425) an indication that Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets significantly influence profitability of commercial banks in Kenya. The significance value was less than 0.05 indicating that the model was significant.

Regression Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.569	.388		1.466	.021
	Interest Rate Cap	-.266	.020	-.276	-13.300	.024
	GDP (Economic Growth)	.205	.129	.755	1.589	.041
	Foreign Exchange Rate	.517	.105	.344	4.924	.025
	Inflation Rate	-.112	.087	-.158	-1.287	.019
	Bank Total Assets	.295	.140	.308	2.107	.042

The established regression equation was

$$\mathbf{Y = 0.569 - 0.266\ X_1 + 0.205X_2 + 0.517\ X_3 - 0.112X_4 + 0.295X_5}$$

From the above regression equation, it was revealed that holding Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets to a constant zero, profitability of commercial banks in Kenya would stand at 0.569, a unit increase

in Interest Rate Cap would lead to decrease in profitability of commercial banks in Kenya by a factors of -0.266, a unit increase in GDP would lead to increase in profitability of commercial banks in Kenya by factors of 0.205, a unit increase in Foreign Exchange Rate would lead to decrease in profitability of commercial banks in Kenya by a factor of 0.517, a unit increase in inflation rate would lead to decrease in profitability of commercial banks in Kenya by a factors of -0.112, also unit increase in Bank Total Assets would lead to increase in profitability of commercial banks in Kenya by a factor of 0.295.

At 5% level of significance and 95% level of confidence, bank total assets had a 0.042 level of significance; GDP showed a 0.041 level of significance; foreign exchange rate showed 0.025 level of significance, interest rate cap had 0.024 level of significance while inflation rate showed 0.019 level of significance hence the most significant factor is inflation rate. All the variables were significant ($p<0.05$).

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.758[a]	.574	.556	.88133	.556	2.671	.001[b]

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.556 an indication that there was variation of 55.6% on profitability of commercial banks in Kenya due to changes in Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets at 95% confidence interval. This shows that 55.6% changes in profitability of commercial banks in Kenya could be accounted for by changes in Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.758.

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.808	5	0.762	8.784	.001[b]
	Residual	17.254	199	0.087		
	Total	**21.062**	**204**			

From the ANOVA statistics above, the study established the regression model had a significance level of 0.001 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 0.05. The calculated value was greater than the critical value ($2.260<8.784$) an indication that Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets significantly influence profitability of commercial banks in Kenya. The significance value was less than 0.05 indicating that the model was significant.

Regression Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.324	.214		1.514	.008
	Interest Rate Cap	-0.311	.112	-.276	-2.777	.017
	GDP (Economic Growth)	0.173	.124	.155	1.395	.032
	Foreign Exchange Rate	0.327	.123	.244	-2.659	.018
	Inflation Rate	-0.371	.145	-.258	-2.559	.002
	Bank Total Assets	0.123	.174	.108	0.707	.033

The established regression equation was

$$\mathbf{Y = 0.324 - 0.311\ X_1 + 0.173X_2 + 0.327\ X_3 - 0.371\ X_4 + 0.123\ X_5}$$

From the above regression equation, it was revealed that holding Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets to a constant zero, profitability of commercial banks in Kenya would stand at 0.324, a unit increase in Interest Rate Cap would lead to decrease in profitability of commercial banks in Kenya by a factors of -0.311, a unit increase in GDP would lead to increase in profitability of commercial banks in Kenya by factors of 0.173, a unit increase in Foreign Exchange Rate would lead to decrease in profitability of commercial banks in Kenya by a factor of -0.627, a unit increase in inflation rate would lead to decrease in profitability of commercial banks in Kenya by a factors of -0.371, also unit increase in Bank Total Assets would lead to increase in profitability of commercial banks in Kenya by a factor of 0.123.

At 5% level of significance and 95% level of confidence, bank total assets had a 0.033 level of significance; GDP showed a 0.032 level of significance; foreign exchange rate showed 0.018 level of significance, interest rate cap had 0.017 level of significance while inflation rate showed 0.002 level of significance hence the most significant factor is inflation rate. All the variables were significant ($p<0.05$).

T-Test

Return on Assets

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Mean
Pre – Interest Rate Capping	23.249	40	.000	17.06250	.82900
Post – Interest Rate Capping	20.582	40	.000	14.37500	.61830

In order to determine the effects of interest rate capping on profitability of commercial banks in Kenya, before and after interest rate capping, the data on return on assets before interest rate capping and after interest rate capping was tested for significance, using t- test, return on assets was used to measure profitability of the bank since is the most important measure of financial performance to the management and shareholders as it cushions them against adverse conditions such as losses due huge claims or unexpected adverse changes to the investment portfolio. From the data shown in the above table, the findings shows that there was decrease in the t- value from 23.249 to 20.582 an indication that there was decrease in profitability after interest rate capping , there was also notable decrease in the mean difference from 17.0625 to 14.375 which is a clear indication of decrease in profitability , from the above findings the study found that there was a decrease on profitability which was found to be statistically significance since the significance value was found to be 0.000 which was less than 0.05.

Conclusions

From the findings, the study revealed that interest rate capping had effects on profitability of commercial banks in Kenya. The study further established that interest rate capping had a negative effect on profitability of commercial banks in Kenya. The study concluded that interest capping has a negative effect on profitability of commercial banks in Kenya.

The study revealed that, a unit increase in GDP (Economic Growth) and Bank Total Assets would lead to an increase in profitability of commercial banks in Kenya and a unit increase in Interest Rate Cap, Foreign Exchange Rate, and Inflation Rate would lead to a decrease in profitability of commercial banks in Kenya.

The study further revealed that there was a strong relationship between profitability of commercial banks in Kenya and Interest Rate Cap, GDP (Economic Growth), Foreign Exchange Rate, Inflation Rate, and Bank Total Assets as shown by strong correlation coefficients.

Recommendations

The study recommends that there is need for the ministry of finance and the Central Bank of Kenya to revisit interest rate cap to ensure that it favors both the borrowers and the lenders to ensure that the banks become profitable and borrowers can access funds at affordable rates which would in turn lead to growth in the country's economy. The study also recommends that banks should be very cautious when they are determining interest rate for their loans because low interest rate will lead to decrease their returns and increased interest rate will reduce the number of borrowers.

The study recommends that the government should provide a conducive environment that promotes growth as well as development of businesses. This will ensure that the people are able to improve their livelihood and earn more income where the surplus is banked and therefore providing the banks with additional income to provide loans and in return increase its profitability.

The study found that an increase in inflation rate leads to decrease in profitability of the banks. The study recommends the government should have measures in place to ensure that they control the rate of inflation; this will ensure that banks remain profitable. The banks should develop ways in which they can still increase their profits, by embracing new affordable and efficient technology this will ensure that their interests grow.

Suggestions for Further Research

This study aimed at establishing the effects of interest rate capping on profitability of commercial banks in Kenya. The study recommends replication of the research study on individual banks. The study also recommends research to be conducted effects of interest rate capping on performance of the economy. The study further recommends a study to be done on other factors affecting the performance of commercial bank in the country.

References

Adeusi, S. O., Kolapo, F. T. & Aluko, A. O. (2014). Determinants of Commercial Banks' Profitability Panel Evidence from Nigeria. *International Journal of Economics, Commerce and Management,* 2(12), 1-18.

Aligonby, P. (2016). *Shares in Kenyan Banks Hit after Interest Rate Cape Move*. Financial Times, 98.

Anthony, J. & Ameyaw. K, (2010), Restarting Housing Finance in Mexico. *Housing Finance International*. 13, 23-30

Benita, G., & Lauterbach, B. (2004). *Policy Factors and Exchange Rate Volatility*. Panel Data Verses a Specific Country Analysis, Research Unit, Foreign Exchange Activity Department, Bank of Israel, Jerusalem.

Bikker, J.A., Hu, H., (2002). Cyclical patterns in profits, provisioning and lending of banks and procyclicality of the new Basel capital requirements, *BNL Quarterly Review*, 221(2): 143-175.

Crystal, J., G. Dages and L. Goldberg. 2001. *Does Foreign Ownership Contribute to Sounder Banks in Emerging Markets: The Latin American Experience*. Staff Reports Series 137. New York, United States: Federal Reserve Bank of New York.

Gelfond, R. (2001). Toward Free Market Money. *Cato Journal*, 21(3), 132.

Hassan, M.K. & Bashir, A. (2003). *Determinants of Islamic Banking Profitability*. Paper Presented at the Proceedings of the Economic Research Forum 10th Annual Conference, Marakesh-Morocco.

Kiseu, T.K (2017). *The Effect Of Interest Rate Capping On The Amount Of Credit Issued By Commercial Banks In Kenya.* Unpublished MBA Project, University of Nairobi.

Maimbo, S., Henriquez G., Claudia A., (2014). *Interest Rate Caps around the World: Still Popular, but a Blunt Instrument.* Policy Research Working Paper; No. 7070. World Bank Group, Washington, DC.

Mbua, S.N (2017). *Effect Of Interest Rates Capping By The Central Bank Of Kenya On The Banks Listed On The Nairobi Securities Exchange,* Unpublished MBA Project, United States University.

Muya, T.W. & Gathogo, G. (2016). Effect of Working Capital Management on the Profitability of Manufacturing Firms in Nakuru Town, Kenya. *International Journal of Economics, Commerce and Management*, 1 (4), 1082-1105.

Ng'ang'a, A. K (2017). *The Impact Of Interest Rate Capping On The Financial Performance Of Commercial Banks In Kenya ,* Unpublished MBA Project, University of Nairobi.

Odhiambo, N. (2010). Interest rate reforms, financial deepening and economic growth in Tanzania: a dynamic linkage. *Journal of Economic Policy Reform*, 13(2), 201-223.

Okwany, F.O. (2017). *The Effect of Interest Rate Capping On Operating Performance Indicators of Commercial Banks in Kenya*: a case study of KCB bank limited. Unpublished Thesis, University of Nairobi.

Ongore, V (2013). *Revenue administration reforms in Kenya: Experience and lessons*. Nairobi, Kenya: Kenya Revenue Authority.

Osano, K. L., & Gekara, M. (2018) Effect of Government Regulations on Profitability of Commercial Banks in Kenya. *Strategic Journals*, 5(1), 916 – 945.

Scholz, A., Rochdi, K., & Schaefers, W. (2015). Does asset liquidity matter? Evidence from real estate stock markets. *Journal of European Real Estate Research*, 2(1):13-29.

Sharma, P. and Gounder, N. (2012). Profitability Determinants of Deposit Institutions in Small, Underdeveloped Financial Systems: The Case of Fiji. Griffith Business School, *Discussion Papers Finance*, 06.