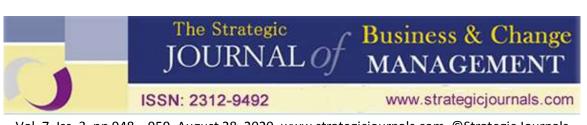


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INFLUENCE OF CREDIT UPTAKE ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

Kenya being a developing nation, many residents rely on financial borrowing from financial institutions to enable them run their businesses and meet other financial obligation. This can only be sustained if the interest rates charged on the borrowed funds are low. Due to competitive market most financial institutions could raise their interest rates. This was recently put into control by central bank of Kenya by imposing fixed interest rates to all commercial banks. This regulation came with both positive and more so negative effects to the financial institutions. Some of the commercial banks have reported drops in income generation from loans and other credits. Therefore, this study sought to examine effect of credit uptake on financial performance of commercial banks in Kenya. The study was guided by loanable funds theory. Longitudinal research design was used in this study. The study targeted commercial banks in Kenya. Purposive sampling was used to sample commercial banks based on published financial data within study period as well as does which are not under receivership or statutory management. The secondary data was collected from audited financial records of commercial banks in Kenya. Panel data was analyzed using inferential statistics which involved testing of hypotheses with help of STATA 15. Inferential analysis was multiple linear regression analysis and correlation analysis. Descriptive analysis such mean and standard deviation was also utilized. The data was presented in form of tables, graphs and models. The results revealed that increase in credit uptake and financial risk during interest rate control would results to reduction in financial performance of commercial banks in Kenya. The study therefore concluded that interest rate control has significant influence on financial performance of commercial banks in Kenya. The study therefore recommended that the central bank of Kenya should opt for long term solutions to resolve the issue of money supply as the use of interest rate control is detrimental to credit uptake by customers from the commercial banks evidenced by the continued decline in the loan growth and an increase in the non-performing loans.

Key Words; Interest Rate Control, Financial performance, Credit Uptake, Commercial Banks

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INTRODUCTION

A fixed interest rate is a rate on a liability, such as a loan, credit, advance, mortgage or any other borrowing, that remains the same either for the whole duration or part of the loan term. A fixed interest rate in a given borrowing where the rate of interest do not fluctuate in the entire the fixed rate period of the borrowing (Howitt, 2013). This enables the borrower to precisely predict their future and total payments. A fixed interest rate is based on the lender's assumptions about the average discount rate over the fixed rate period. For example, when the discount rate is historically low, fixed rates are normally higher than variable rates because interest rates are more likely to rise during the fixed rate period. Conversely, when interest rates are historically high, lenders normally offer a discount to borrowers to fix their interest rate over time, as rates are more likely to fall during the fixed rate period (Neumeyer & Perri, 2014).

The capital value of a fixed rate loan is generally determined as a function of future interest rates at the time of calculation. This means that they contain a capital risk, in that if interest rates fall, the capital value of the loan rises, and vice versa. This differs from a variable rate loan, where the capital value is always the original loan less any capital repayments (Campbell & Mankiw, 2018). In about past ten years, central banks worldwide have demonstrated their efforts to respect their mandates to uphold stability of the price and protect their economies from the poor consequences emerging as a result of financial crisis. The European Central Bank (ECB) in the euro areas began offering banks with plenty liquidity. This was also done through durable refinancing operations. It initiated an asset purchase programs of extraordinary sizes, cutting down on the lending interest rates to and availed guidance to provide a clear lending policies (Jones, 2017).

Within the major central banks, it was the first time the ECB introduced negative interest rates on its deposit facility. This was in June 2014 which was at -0.4% by 2016. Yves (2016) noted that these policy measures was put in place to help achieve one main objective which was to ensure price stability defined as an inflation rate was below the standard values, but close to, 2% in the medium term. These policies were noted to be actively working. This was so as Lending rate was gradually increasing due to low interest rates. Lending to manufacturing institutions and household lending grew by not less than 1.8% and 1.7% yearly respectively. Generally money circulations increased by more than 4.9% (Floro, 2018).

By so doing banks considerably eased financial access to private sectors. As a result the combined borrowing cost for new corporate loans dropped more than by 150, 128 and 38 basis points in Italy, Spain and Luxemburg between 2014 and 2016 financial years. Even though slow economic recovery was noted and inflation is expected to rise by more than 1.5 % in 2018, more employment opportunities were created. These policy measures came with side effects. Low lending rates put pressure on banks' profitability, particularly on banks which depend on net interest income (Richard, 2011). Very low interest or negative interest rates drastically lowers banks' profitability over the years to come with the profits on equity occasionally falling by more than 4%. At time fixed interest rates particularly when it is low raise cost of capital of the banks and in the end lowers the net profit on lending services. Due to this most banks may end up being more conservative in their lending services to investors in the euro (Ivashin, Scharfstein & Stein, 2014).

The interest rates in a country is an expression of the government policy in relation to much it is borrowing from the local market, risk rating from investors and cost of doing business in that country. All these three factors together influence the rate at which banks lend to their customers. Some African countries have introduced interest rate caps to safeguard borrowers from high rates charged by commercial banks. This is implemented with intension that interest rate caps will result in affordable interest rates for the loan seekers (African Development Bank, 2012). Despite these good approaches, banks may find it hard to recover costs and it is likely to reduce service delivery of the bank.

Kenya has been identified to become weaker than expected in economic growth. Lending and borrowing interest rates controls have already impacted corporate earnings, with renowned listed financial service providers reporting reduction in earnings in each share. This has effectively slashed down the dividends earned by shareholders. In the Nairobi Stock Exchange, most of listed companies have realized worst fall in the year 2016 2017 financial year particularly the banking stocks. This happened particularly after the government imposed controls on lending and deposit rates (Osamwonyi & Kasimu, 2013).

The Central Bank of Kenya had already sound a warning that the poor performance of the listed institutions The Central Bank of Kenya had cautioned that the poor performance of listed firms would spill over the next financial year (2017 2018). So far Barclays' recorded a drop in net profit generation from Kshs. 8.4 billion in 2014/2016 financial year to Kshs.7.39 billions 2016/2017 financial years. Stanbic Holdings Kenya on the other hand recorded a 10 per cent drop in net According to Stanbic Bank chief executive increased regulation in the banking sector is one of the factors for the Group's performance (Cherono, 2018).

Statement of the Problem

Prior to fully regulated interest rates, most commercial banks mostly set their base rates and gave them to their customers with the biggest muscle. Such subsequent increased payments stressed borrowers but enabled banks to continue enjoying high profit margins. In contrast the full effect of the new regime and how it has disbanded banks can be seen clearly from the third quarter trading results of the year 2017 that were released by the banks. For example Equity Bank's net profit dropped by 3% to Sh14.6 Billion, Co-operative banks Profit dropped by 9.5 % to Sh9.5 Billion and Barclays bank saw its profit down 12 per cent to sh5.3 billion. On the other hand some of banks found themselves in the negative territory. Jamii Bora bank widened its loss to sh337 million, Sidian bank posted a loss of 274 million which was a 225 per cent drop and Consolidated Bank of Kenya posted a loss of 301 million (KBA,2017).

The banks that dropped in profitability or posted losses have been left stranded as they cannot push the interest rates up so as to record more revenue. Other banks have been forced to take up other drastic measures to reduce the cost of operation including laying off staff and also offering early retirement packages for the case of National Bank and Family Bank. 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 4% which affects economy negatively (Musyimi & Kising'u, 2018). According to Kenya Commercial Banks Association Report (2016), Low interest rates in the long run may negatively affect profitability and solvency of financial companies which promise minimum nominal returns over the longer term.

Extant empirical studies have reported mixed and inconclusive relationship between interest rate control and financial performance of commercial banks. Kavwele, Ariemba and Evusa (2018) showed that interest rate capping was negatively and statistically related to the bank's financial performance. However, Sheli (2018) found that even though interest control has negative effect on financial performance of commercial banks in Kenya, the effect is not significant. On the other hand, Ochanda (2018) found that the introduction of interest rates caps coupled with deposit rates floors had a positive effect on the deposits of commercial banks in Kenya. This result was also supported by Musyimi and Kising'u (2018) who showed that there is a positive relationship between interest rates and financial performance of commercial banks in Kenya. However, the effect of interest rates control on financial performance is

not significant. Therefore, this study sought to establish the influence of interest rate control on financial performance of commercial banks in Kenya.

Research Objective

The objective of the study was to establish the influence of credit up take on financial performance of Commercial banks in Kenya.

The study was guided by the following research hypothesis;

 H₀₁: Credit uptake has no significant effect on on financial performance of Commercial banks in Kenya.

LITERATURE REVIEW

Loanable Funds Theory

This was a theory advanced by the Swedish economist Knut Wicksell. This theory states that the relationship between quantities of loanable funds demanded and the interest rates is inverse in nature. The rate that brings about equality between the supply as well as the demand of loanable funds can be defined as the equilibrium interest rate. This theory sought to improve the earlier classical theory of interest rates by arguing and recognizing how important hoarding as a factor affects interest rates. The theory also tried to link together investments, savings, and quantity of money and liquidity preference. The theory also took into consideration the role that bank credit will have as an important source of loanable funds. This theory sheds light and takes into account both aspects of the problem, be they monetary or non-monetary (Wicksell, 1997).

Ngugi (2014) pointed out that interest rate is that price which brings about an equity in the supply as well as the demand of loanable funds, thus establishing an equilibrium point. There are three primary or key sources for the demand of loanable funds, i.e. the government, businessmen and consumers. Funds may also be demanded for purposes of hoarding, in forms, liquid and cash. Savings help in the supply of loanable funds, as well as dis-hoarding and credit from the bank. If interest rates are high, there is a higher incentive to save and vice versa. This theory also applies as well to bank credit or money as more credit is issued at a higher than at a lower rate of interest. Saunders (2010) argued that the interests are determined similarly to how the economy determines the demand and the supply of goods and services.

Accordingly, assuming all other factors are held constant, then as when supply of loanable funds goes up, interest rates will also go up. Gichuki, Mwaniki and Ogolla (2019) goes further to argue that as the interest rates fall, demand for loanable funds increases, and the demand going down as interest rates rise up. Meja(2017) explains the attendant risks of commercial banks having to set very high rates of interest in order to optimize their returns from lending. Commercial banks will induce the problem of adverse selection and moral hazards by setting high interest rates. The effects that this has are that banks attract borrowers who have very risky projects into their portfolio.

This theory provided a baseline for this research by creating a relationship between the investors and the topic of the study. Hence, we can draw conclusive results based on the data collected in our research and the theoretical framework given by this theory. According to Ngetich and Wanjau (2011), interest rate control help to keep in check how much spread banks will enjoy and this influences their performance through return on asset.

Loan Uptake

- Demand For Loan
- Loan Book Value

Independent Variables Figure 1: Conceptual Framework

Credit Uptake

The capping of interest rate was expected to increase the access of loans and hence the increase in the loan book portfolios of the commercial banks. There is however notion that especially in the medium and small tier banks which were hard hit by high provisions for nonperforming loans are selective in advancing loans to micro and small businesses to cushion their bottom line hence the probability of shrinking loan books (Kenya Banker Association, 2016). According to IMF (2016), interest rate capping by Central Bank of Kenya was likely to reduce access to credit and weigh down the growth. The fund however stressed the importance of setting a formal interest corridor so as to strengthen monetary policy framework. Kenya Bankers Association (2017), the interest rate capping does not address market failure but introduces one. This is because of the expectations that banks will prefer lending to government than households and business hence leading to credit rationing and distortions.

Thiong'o (2018) evaluated the effect of growth in loan portfolio on financial performance of commercial banks in Kenya. The effect of loan growth on financial performance of commercial banks in subsequent years was found to be adverse. Zakary (2014) did an empirical study on the effects of interest on the uptake of credit and how it affects financial performance in Nairobi County. The findings presented there was solid relationship between uptake of credit and interest rate control which has bearing on financial performance of commercial banks. **Dependent Variable**

ROA

Financial Performance

Ngele (2013) performed a study on the effects of borrowers' uptake in commercial banks in Kenya. The study covered period between 2005 and 2013 and the findings stated that the level of interest rate, level of deposits and inflation are significant in uptake of credit facilities. Mohane (2013) performed as study in South Africa on the effects of interest rate capping on microfinance market, a case study of micro lender. The findings revealed that interest rate capping could act as constraint to the provision of loans which affected financial performance negatively. Sabry and Okongwu (2012) carried a study on the effects of interest rate capping on the consumer credit. Their findings established that interest rate ceilings depressingly affected the level of credit accessible to the moderate income earners residing in the states with interest rate caps.

Financial Performance

Maditinos (2011) argued that financial performance of an organization can be measured by growth revenues that will also indicate the growth of an organization. ROE that measures an organization's profitability by revealing how much profit a company generates with the money shareholders have invested will also be used. Maditinos (2011) further noted that financial performance can also be measured by ROA which is an indicator of how the company is in relation to its total assets and it gives an idea as to how efficient the management uses assets to generate earnings. Sangmi (2010) suggested that earnings ratio determined by earnings divided by profits is a conventional parameter used to measure financial performance of a bank. Sangmi (2010) further noted that higher income generally reflects a lack of financial difficulties and so would be expected to reduce the likelihood of failure in banks.

Almazari (2014) studied the financial performance of seven Jordanian commercial banks between 2005 and 2009. Using a simple regression analysis, the results of the analysis revealed a strong negative correlation between ROA and banks' size. While on the hand a strong positive correlation between ROA and asset management ratio, and a negative weak correlation between ROA and operational efficiency. According to Ongore (2013) capital adequacy, asset quality, management efficiency and liquidity management are the internal determinants of bank performance and significantly affect performance except for liquidity management. Ongore (2013) indicated that ROE, ROA are the appropriate measures of financial performance in banks. Olweny and Themba (2011) argued that financial performance is measured by use of ROA as profitability ratio and that higher ROA indicates good performance and international comparisons of banks can easily be made. Olweny and Themba (2011) further argued that capital adequacy, asset quality, liquidity management, operational cost efficiency, income diversifications are the banking sectorial factors with a significant relationship with profitability as a financial performance measure.

Empirical Studies

Okwany (2017) investigated the effects of interest rate control on the operating performance of commercial banks in Kenya with a case study of KCB Bank Kenya Limited (KCB-K). Descriptive research design was applied in the study. The targeted population in the study was the employees of KCB-K at selected branches and Head Office functions. Questionnaires were used for data collection and were self-administered. The main findings of the research were 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 nonperforming loans. Ngele (2013) performed a study on the effects of borrowers' uptake in commercial banks in Kenya. The descriptive research and multiple regression model was used, secondary data was collected by reviewing topic under study and the commercial banks. The study covered period between 2005 and 2013 and the findings stated that the level of interest rate is significant in uptake of credit facilities.

Guyo (2017) sought to determine the effects of interest rate capping on financial performance among commercial banks in Kenya. The study adopted descriptive research design. The population of the study was the forty-two commercial banks registered with the Central Bank of Kenya. The study used secondary data collected from the Central Bank of Kenya. The study established that there was significant negative relationship between interest rate risk exposure as well as uptake of loans and financial performance among commercial banks. From the findings, the financial performance among commercial banks had declining trends in the periods after introduction of interest rate control.

Olukoye and Juma (2018) sought to determine the impact of interest rate capping policy on financial performance of commercial banks in Kenya and the main case study was Equity Bank Kenya Limited. Descriptive research design was also applied in the study. The target population in the study was 78 employees who comprised of operations managers, credit managers and branch managers of Equity Bank. The study established that there is significant relationship between credit uptake and financial performance. Ahmed, Rehan, Chhapra and Supro (2018) evaluated the impact of interest rate fluctuations on the profitability of banks. Thus, annual data of seven years from 2007 to 2014 has been taken for 20 banks operating in Pakistan. The result shows that loan uptake having influence over profitability of banks.

METHODOLOGY

The study assumed a longitudinal research design to collect and analyze data. To achieve this, the study employed a panel data approach and analyzed the effect of interest rate control on financial performance of commercial banks in Kenya during the period 2014 to 2018. The target population for the study was 41 commercial banks in Kenya. The study sampled 38 commercial banks in Kenya therefore; the study used purposive sampling techniques. Two criteria were used during purposive sampling technique. The first criteria was commercial banks that are not under receivership or statutory management during study period and the second criteria was commercial banks that have published their financial reports during the study period (2014-2018). The research utilized secondary Audited income statements, statement of financial position and cash flow statements were collected from the central bank of Kenya and commercial banks websites. A data collection form was used for initial recording of the data. Data was collected for the five year period ending 31st Dec 2018. The study extracted data containing quantitative details

from financial institutions, the panel data collected was analyzed quantitatively through a mathematical and regression equations and this was solved by using a statistical tool (STATA 15). Linear regression analysis was used to determine the influence of independent variable on the dependent variable. The following regression model was used:

 $ROA_{it} = \alpha + \beta_1 LU_{it} + \varepsilon_{it}$

 ROA_{it} = Return on assets for bank (i) in period (t) α = Determines the level of fitted lines β_1 = Regression coefficient LU_{it} = Measure of loan uptake for bank (i) in period (t) ϵ_{it} =Error Term

FINDINGS AND DISCUSSION

The descriptive statistics entailed Minimum, Maximum, Mean and standard deviation. The results were as shown in Table 1.

	2014		2015		2016		2017		2018		Summary	
Statistics	CUP	ROA	CUP	ROA								
Minimum	4.82	-1.59	4.80	-1.13	4.74	-2.05	4.72	-0.20	4.68	-3.90	4.68	-3.90
Maximum	8.38	28.00	8.37	17.00	8.33	23.00	8.47	16.27	8.45	19.00	8.47	28.00
Mean	6.91	5.53	6.91	5.22	6.98	5.20	7.00	4.87	7.00	4.46	6.96	5.06
Std Dev	1.04	6.41	1.11	4.78	1.06	5.70	1.06	4.83	1.06	5.83	1.05	5.46

CUP: Credit Uptake; ROA: Return on Assets

Table 1: Summary Statistics

Table 1 showed summary statistics between 2014 and 2018 for each variable used in the study. From Time series summary, Log of customer credit up take ranged from 4.68 to 8.47 with a mean of 6.96 and standard deviation of 1.00. Lastly, return on assets ranged from -3.9% to 28.0% with a mean of 5.05% and standard deviation of 5.48%. Figure 2 showed scatter plot for return on asset between 2014 and 2018.

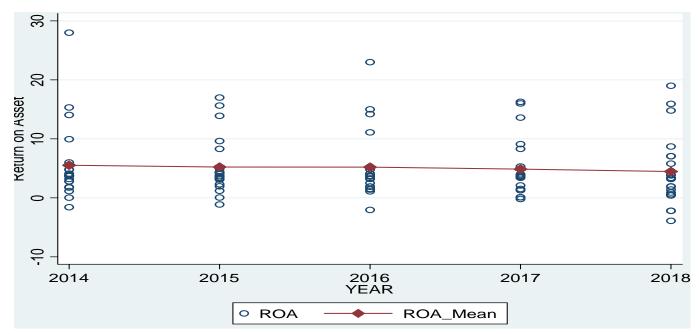


Figure 2: Scatter Plot for Financial performance

Panel Unit Root Test

The study carried out a unit root test to ensure that there was no presence of unit roots (the panel data are stationary). Unit root test were conducted to ensure that the series were stationary and check the problem of having a spurious regression. A variable can only be said to be stationary when it has no unit root. The study used Phillips-Perron which is based on hypothesis

Ho: All panels contain unit roots

Ha: At least one panel is stationary

The results were as shown in Table 2.

Table 2: Unit Root Tests without Difference (Levin Lin–Chu
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Variable	Statistics	P-Value	Significant
Credit Uptake	55.5789	0.000	**
Return on Asset	44.3165	0.010	*

* sig at 5% level, ** sig at 1% level

Table 2 showed the summary results for Stationarity test. A p-value of more than 0.05 indicates the presence of unit roots while a p-value of less than 0.05 was an indication that there was no presence of unit roots for Phillips-Perron tests. The results indicated that there was absence of unit root for the study variables. This showed that all variables are stationery and there was no problem of unit root and the results can for further inferential statistics.

Inferential Analysis

Simple linear regression analysis was conducted to establish the relationship between credit uptake and financial performance of Commercial banks in Kenya. The R square was used to establish contribution of credit uptake on financial performance. The Correlation coefficient (R) was used to establish the relationship between variables. The results were as shown in Table 3.

			Model	Summary					
Mode R	R	Adjuste	Std. Error	Change Statistics					
I	Squar	d R	of	R Sq	F Change	df1	df2	Sig. F	
	е	Square	Estimate	Change				Change	
1 .402 ^a	.162	.135	.500560	.162	6.743	1	158	.010	
a. Predictors: (Co	nstant), Cr	edit uptake							
			AN	IOVAª					
Model	Sum	n of Square	s Df	1	Mean Square		F	Sig.	
1 Regression		1.6	90	1	1.690)	6.743	.010 ^b	
Residual		39.5	88	158 .25					
Total		41.278		159					
a. Dependent Va	riable: Fina	ncial perfor	mance						
b. Predictors: (Co	onstant), Cr	edit uptake							
			Coef	ficients ^a					
Model		Unstandardized			Standardized			Sig.	
		Coeffic	ients	Co	Coefficients				
		B S	Std. Error		Beta				
1 (Constant)		1.208	.288				4.191	.000	
Credit uptake		105	.040		402		-2.597	.010	
a. Dependent Va	riable: Fina	ncial perfor	mance						

Table 3: Regression Results of Credit uptake on financial performance

The analysis yielded an R coefficient of -0.402, P=0.000. This illustrated that there was a significant negative statistically relationship between credit uptake and financial performance of Commercial banks in Kenya. According to Ostadi and Monsef (2014) bank deposits are directly related to bank profitability. Banks that have huge deposits are more likely to report high profits as compared to banks with low deposits. However, Rehan, Chhapra and Supro (2018) revealed that high interest paid on deposits attracts deposits and that interest paid on deposits reduces income earned by commercial banks eventually affecting financial performance of commercial banks.

From coefficient of determination (R-Square), credit uptake accounted for 16.2% ($R^2 = 0.162$) variations in the financial performance of commercial banks in Kenya. The F value was more than zero, F=6.743, P=.010, therefore, credit uptake as a result of interest rate control is a significant predicator of financial performance of Commercial banks in Kenya. Results also showed that credit uptake had a positive, linear and significant (p-value is less than 0.05) relationship with the financial performance of Commercial banks in Kenya {regression coefficient, B=-.105, t-test value, t=-2.597 and P=0.010}. The results are represented in the following model:

 $Y = \beta 0 + \beta_1 X_1 + \varepsilon$

Where Y= financial performance,

- β0=1.208 (constant)
- β₁= -0.105
- X_1 = Credit uptake
- Doulooing in the

Replacing in the equation above, the model becomes: $Y=1.208-.0105X_1$

From the above equation, the constant had coefficient of 1.208, p=0.000, this implied that in the absence of credit uptake, financial performance will be at 1.208. This performance will be significant (P<0.01). On the other hand, credit uptake had regression coefficient of -0.105. This implied when everything is held constant, a unit increase in the interest rate control in regard to credit uptake would results to a significant decrease in financial performance by 10.5%. This finding is in agreement with Thiong'o (2018) who found that the effect loan growth on financial performance of commercial banks in subsequent years was found to be adverse

after interest rate capping. Ngele (2013) also indicated that the level of interest rate is significant in uptake of credit facilities which affected financial performance of commercial banks in Kenya.

CONCLUSION AND RECOMMENDATIONS

The study concluded that during interest rate control period, credit uptake influenced financial performance of commercial banks in Kenya. The study found that during interest rate control, increase of credit uptake would results to significant decrease in financial performance of commercial banks. Specifically, there is reduction of credit uptake due to stringent credit risk management imposed by commercial banks and also profitability of the commercial banks is adversely affected by reduction of loan interest rate income due to interest rate capping.

The study recommended that the central bank of Kenya should opt for long term solutions to resolve the issue of money supply as the use of interest rate control is detrimental to credit uptake by customers from the commercial banks evidenced by the continued decline in the loan growth and an increase in the non-performing loans. The study recommended that management at commercial banks listed at NSE should balance fees chargeable on each loan product as processing fee to a percentage of the loan. This should be same to insurance fees, and legal fees to avoid situations where loan products becoming expensive for customers to afford. This will not only ensure that customers still seek loans, but also ensure revenues on loans are adequate to enhance loan performance.

Areas of Further Studies

This research focused on the influence of interest rate control on financial performance of commercial banks in Kenya. The study focused on financial exposure, credit uptake and customer deposit growth on financial performance during interest rate control regime. However, other factors such as firm size may have direct or indirect influence on the relationship between interest rate control and financial performance. Therefore, further studies should consider using firm size as moderating variable.

REFERENCE

- Sangmi, M. (2010). Analyzing financial performance of commercial banks in India: Application of CAMEL model. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 4(1), 40-55.
- Ahmed, A., Rehan, R., Chhapra, I. U., & Supro, S. (2018). Interest rate and financial performance of banks in Pakistan. *International Journal of Applied Economics, Finance and Accounting*, *2*(1), 1-7.
- Almazari, A. A. (2014). Impact of internal factors on bank profitability: Comparative study between Saudi Arabia and Jordan. *Journal of Applied finance and banking*, 4(1), 125.
- Campbell, J. Y., & Mankiw, N. G. (2018). Consumption, income, and interest rates: Reinterpreting the time series evidence. *NBER macroeconomics annual*, *4*(*11*), 185-216.
- Cherono, M. J. (2018). Factors Influencing Mergers and Acquisitions on the Return on Asset of Commercial Banks in Kenya: Case of CfC Stanbic Bank, Nairobi County (Doctoral dissertation, University of Nairobi).
- Floro, S. L. (2018). Informal credit markets and the new institutional economics: The case of Philippine agriculture. Routledge.
- Gichuki, E. M., Mwaniki, G & Ogolla, D. (2019). Interest rate capping by the central bank of Kenya on loans uptake. *International Academic Journal of Economics and Finance*, *3*(5), 33-44

- Guyo, A. U. (2017). The Effect of Interest Rate on the Uptake of Loans: The Case of Commercial Banks in Kenya (Doctoral dissertation, University of Nairobi).
- Howitt, P. (2013). Interest rate control and non-convergence to rational expectations. *Journal of Political Economy*, *100*(4), 776-800.
- Ivashina, V., Scharfstein, D. S., & Stein, J. C. (2014). Dollar funding and the lending behavior of global banks. *The Quarterly Journal of Economics*, 130(3), 1241-1281.
- Jones, P. W. (2017). World Bank financing of education: Lending, learning and development. Routledge.
- Kavwele, D. T., Ariemba, J. M., & Evusa, Z. (2018). Effect of Interest Rate Capping on the Financial Performance of Commercial Banks in Kenya. *International Journal of Business Management and Economic Research (IJBMER)*, 9(1), 1182-1190.
- Maditinos, D. (2011). The impact of intellectual capital on firms' market value and financial performance. *Journal of intellectual capital*.
- Meja, E. (2017). The effect of interest rates capping on the levels of personal loans granted by commercial Banks in Kenya. *University of Nairobi, Masters in Bachelor of Arts Thesis*.
- Mohane, H. T. (2007). The effects of interest rate ceilings on the microfinance market: A case study of a *microlender* (Doctoral dissertation, University of Pretoria).
- Mugenda, O. M., & Mugenda, M. AG (2003). *Research Methods: Quantitative and Qualitative Approaches, Nairobi: African Centre Technology Studies press (ACTS).*
- 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.
- Neumeyer, P. A., & Perri, F. (2014). Business cycles in emerging economies: the role of interest rates. *Journal* of monetary Economics, 52(2), 053-380.
- Ngele, N. M. (2016). The Effect of Interest Rate on Borrowers Uptake of Credit Facilities in Commercial Banks in Kenya. *Unpublished thesis*). *University of Nairobi, Kenya*.
- Ngetich, J. C., & Wanjau, K. (2011). The Effects of Interest Rate Spread on the Level of Non Performing Assets. *Case of Commercial Banks in Kenya*.
- Ngugi, E. N. (2014). Effects of lending rates on share prices of commercial banks quoted in the Nairobi Securities Exchange (Doctoral dissertation, University of Nairobi).
- Okwany, F. O. (2017). Effect of Interest Rate Capping On Operating Performance Indicators of Commercial Banks in Kenya: A Case Study of KCB Bank (Kenya) Limited (Doctoral dissertation, United States International University-Africa).
- Olukoye, B., & Juma, D. (2018). Effect of Interest Rate Capping Policy on Financial Performance of Commercial Banks in Kenya ; Case of Equity Bank Kenya Limited in Nairobi County. *International Journal of Science and Research*, 7(11), 481–486
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. International Journal of Economics and Financial Issues, 3(1), 237-252

- Osamwonyi, I. O., & Kasimu, A. (2013). Stock market and economic growth in Ghana, Kenya and Nigeria. *International Journal of Financial Research*, *4*(2), 83-110.
- Ostadi, H., & Monsef, N. (2014). Assessing the impact of bank concentration and liquidity of Refah bank branches on profitability during the Period1383-190. *International Journal of Human Resource Studies*, *4*(1), 248.
- Richard E (2011) Factors That Cause Non-Performing Loans in Commercial Banks in Tanzania and Strategies to Resolve Them. *Journal of Management Policy and Practice* 12: 50-58.
- Sabry, O., & Murphy, A. (2012). The effect of allowing unregulated credit default swaps. *International Review* of Applied Financial Issues and Policy.
- Thiong'o, P. K. (2018). *Effect of loan portfolio growth on financial performance of commercial banks in Kenya* (Doctoral dissertation).
- Tobias, O., & Themba, M. S. (2011). Effects of banking sectoral factors on the profitability of commercial banks in Kenya. *Economics and Finance Review*, 1(5), 1-30.
- Wicksell, K. (1997). Knut Wicksell: Selected Essays in Economics (Vol. 1). Psychology Press.
- Zachary, L. N. (2013). *The effect of interest rates on demand for credit by small medium enterprises in Nairobi County* (Doctoral dissertation, University of Nairobi).