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EFFECT OF INTEREST RATES ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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Abstract

Purpose: The purpose of this study was to analyse effect of interest rates on the financial performance of commercial banks in Kenya.

Methodology: The study adopted an explanatory research design. This study adopted a census research design; of all the 43 commercial banks in Kenya. The study also used secondary data. Multiple linear regression model was used to analyze the data using statistical package for the social sciences (SPSS) version 20.

Results: The study established that lending rate ratio influence the financial performance of commercial banks in a positive way. Deposit interest ratio on the other hand negatively affects performance of commercial banks. Liquidity management and liquidity management influence performance positively and negatively respectively. The study concluded that there is a positive significant relationship between lending rate ratio and financial performance of commercial banks. The study also arrived at the conclusion that deposit interest ratio negatively affects bank performance. Moreover, the study concluded that liquidity management and asset quality affect performance positively and negatively respectively.

Unique contribution to theory, practice and policy: Following study results, it was recommended that commercial banks in Kenya should keenly manage their lending interest rates given that lending interest ratio is directly related to performance. The study also recommends that commercial banks need to monitor the interest on deposits carefully. The deposit interest ratio negatively affects performance. It represents the main expense by any commercial bank and therefore for a commercial bank to be profitable, they must maintain a reasonable spread. Commercial banks must strive to raise deposits at reasonable rates in order to lend to the customers. Commercial banks that attract deposits cheaply are able to advance loans cheaply and therefore attract more borrowers. It is recommended that banks should embrace prudent credit risk management to maintain appropriate asset quality. Credit information sharing and cross referencing with credit bureaus will ensure high risk borrowers are closely monitored. Such measure will result in a reduction of nonperforming loans improve the asset quality

Keywords: *interest rates, financial performance*

1.1 INTRODUCTION

Banking is an economic activity, which deals with the intermediation of funds between the surplus units and the deficit units of an economy and the channeling of such resources to profitable investments (Ogunbiyi & Ihejirika, 2014). As compensation, the bank charges borrowers interest; conversely most funds are provided by depositors and they also receive interest (Khan & Sattar, 2014). Interest rates are usually expressed in percentages and represent the interest charged/paid over a specified time period.

Interest rate influences the overall level of economic activity, flow of goods and services and financial assets within the economy (Saunders, 1999). The government through the Central Bank manipulates the monetary policy to achieve stability. The major determinants of interest rates include; expected inflation rates, level of government borrowing and efficiency of the banking sector. According to Samuelson (1945), under general conditions, bank profits increase with rising interest rates.

The relationship between interest rates has been an area of interest in academia for several decades. In Tunisia, partial liberalization was found to have a negative impact on the interest margin whereas complete liberalization strengthened the ability of Tunisian banks (Bennaceur & Goaid, 2008). According to the study of Khawaja and Musleh, (2007), Increase in the interest rate depresses the borrowers and depositors, like investment and saving. Banks by charging high interest rate gain high returns from borrowers and discouraging the depositors by giving low return to them which results in inclusive spreads.

1.1.1 Interest Rates Chargeable by Commercial Banks

Interest is the cost of hiring money or credit (D' Alberto, 2015). Keynes (1973) defined it as the reward for not hoarding money. Over the years, interest rates have remained a subject for critical assessment with diverse implications for savings mobilization and investment promotion. Banks pay interest on deposits on one hand and on the other hand they charge interest on loans and advances lent to borrowers. The difference between these two interest rates defines the interest spread which constitutes a significant proportion of the profit of MDBs. Interest rate variables include minimum rediscount rate, lending rate, deposit rates, treasury bills rates, as well as interbank rates.

Lending rates represent the price of loans extended to borrowers by commercial banks. Banks should consider the problems of adverse selection and moral hazard since it is very difficult to forecast the borrower type at the start of the banking relationship (Hoff & Stiglitz, 1998). If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. Excessive high interest rates in by commercial banks in Kenya sector have strongly discouraged long-term investment and constrained Kenya's ability to grow (Ngumo, 2012).

Profitability of banks is described as income by interest or non-interest and after tax profits which are computed as an amount of income (both interest & non-interest) after the subtraction of provisions and operating costs (Albertazzi & Gambacorta, 2009). Abreu and Mendes (2001) found out that the net interest margin reacts positively to operating cost and hence changing market conditions would have an impact on the market interest rates which would have a direct impact on profitability.

1.2 Research Problem

Anbar and Alper (2011) posit that an efficient banking sector can promote economic growth, while credit insolvencies could result in systematic crisis. Interest rates form a significant portion of revenue in commercial banks. The profitability of commercial banks is partly dependent on the interest spread—the difference in interest rates charged on loans and what is paid to suppliers of funds (Pyle, 1971). Interest rate volatility has negative impact on the financial performance of commercial banks posing challenge to commercial banks managers in their core function of credit management and profitability (Baum, Caglayan & Ozkan 2009). On the other hand, a rise in interest rates translates to higher returns on new investments, increased profit margins on loans, and improved earnings from bond trading.

The Kenyan financial sector is dominated by commercial banks. Commercial banks play a vital role in the economy through economic resource allocation. They act as intermediaries between savers and borrowers, provide investment opportunities for savers and provide savers with experts in financial management. Interest rates determine the profitability of a commercial bank among other factors (Gregory et al., 2005). Stability of commercial banks has a direct impact on the economic stability of Kenya.

Various studies have been performed investigating interest rates and profitability in advanced economies. Enyioko (2012) examined the performances of banks in Nigeria based on the interest rate policies. The study found that interest rate policies have not improved the overall performances of banks significantly. Aburime (2008) found that real interest rate, inflation, monetary policy and foreign exchange regime are positively associated with banks' return on assets of the banks in Nigeria. Bosson and Jog-kun (2002), however found out that profitability of Ghanaian banks is skewed towards large banks and that there is correlation between bank size and profitability.

In Kenya there has been an extensive research on the area of interest rates and profitability. Kipngetich (2011) examined the effect of interest on the performance of commercial banks in Kenya. The study found there is a positive relationship between interest rates and financial performance of commercial banks in Kenya. Mbai (2006) found out that proper interest rate management reduced bank exposure to risk and provides an opportunity to stabilize and improve their net income. Ogilo (2012) studied the effect of credit management on the performance of commercial banks in Kenya. The study found that there is a strong impact between the Capital adequacy, Asset quality, Management, Earnings and Liquidity (CAMEL) components on the financial performance of commercial banks.

The studies above provide valuable insights on interest rates and financial performance; however, they do so only partially. Given the volatile macroeconomic environment in Kenya, there is need for up to date research on the complex relationship between interest rates and financial performance. Basing on the foregoing, it is imperative to study the relationship between interest rates and financial performance in Kenya. This study therefore seeks to answer the question: what is the effect of interest rates on the financial performance of commercial banks in Kenya?

1.3 Research Objective

- To determine the effect of interest rates on the financial performance of commercial banks in Kenya

2.2 Theoretical Framework

2.2.1 Liquidity Preference Theory

The liquidity preference theory was developed by Maynard Keynes in his book *General Theory in 1936*. The theory is based on the premise that people hold money for three motives: transaction motive, precaution motive and speculative motive. The theory posits that one needs money because one has expenditure plans to finance, or is speculating on the future path of the interest rate, or, finally, because one is uncertain about what the future may have in store so it is advisable to hold some fraction of one's resources in the form of pure purchasing power.

Keynes argued that, other things held constant, people prefer to hold cash (liquidity). According to the theory, interest rate was the reward of parting with liquidity (Lekachman & Keynes, 1964). The theory suggests that interest rates change with changes in demand and supply of money. The money supply is fixed by the central bank; the quantity of money supplied does not depend on the interest rate. According to the theory, there is one interest rate, called the equilibrium interest rate, at which the quantity of money demanded equals the quantity of money supplied.

2.3 Determinants of Performance of Commercial Banks

Determinants of performance of commercial banks are broadly categorized into two; internal and external factors, (Rustam et al., 2011). Internal factors are mainly influenced by a bank's management decisions and policy objectives (Staikouras & Wood, 2004), whereas external factors focus on industry-related and macroeconomic variables reflected in the economic and legal environment where banks operate (Athanasoglou et al., 2006). Internal factors include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like (Ongore & Kusa, 2013). The external factors include growth in Gross Domestic Product (GDP), GDP-per-capita inflation expectation, interest rate and its spread.

Internal factors represent aspects under the control of the bank. Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability and Liquidity (CAMEL) framework often used by scholars to proxy the bank specific factors (Dang, 2011).

Capital adequacy indicator measured by bank equity to total assets, refers to the amount of own funds available to support a bank business and acts as a safety net in the case of adverse selection (Munyambonera, 2012). Capital in commercial banks acts like a buffer that may offset the losses of the creditors (depositors) and allows for the orderly liquidation and disposal of assets in the event of financial distress (Gale & Ozgur, 2005). In Kenya, capital adequacy is catered for under Section 7(1) of the Banking Act 2000 (Kamau, 2009), and the minimum regulatory Capital Adequacy requirement which is measured by the ratio of Core Capital and Total Capital to Total Risk Weighted Assets is 8.0 percent and 12.0 percent respectively, CBK (2010). Banks with substantial capital adequacy ratio may be over cautious, passing up profitable investment opportunities (Munyambonera, 2004). However, a declining ratio may signal capital adequacy problems which may threaten the solvency of the bank. Capital adequacy has a direct effect on the profitability of banks by determining their expansion to risky but profitable ventures or areas (Nazir, 2010).

Asset quality measures the financial efficiency of the commercial banks (Pastory&Mutaju, 2013). Asset Quality also known as credit risk is measured by the ratio of net non-performing loans to gross loans. According to Central Bank of Kenya (2011), the asset quality of commercial banks in Kenya had been improving since 2006. Given that loans are the main income generating assets of the bank, a high proportion of nonperforming loans signals poor performance. The lower the ratio, the better the bank performance (Nazir, 2010). According to Achou and Tenguh (2008), it is of crucial importance that banks practice prudent credit riskmanagement and safeguarding the assets of the banks and protect the investors' interests.

Management efficiency is usually qualitative and can be understood through the subjective evaluation of Management systems, organization culture and control mechanisms (Nazir, 2010). It may also be represented by financial ratios like total asset growth, loan growth rate and earnings growth rate (Ongore&Kusa, 2013). Management efficiency is a proxy of the management's ability to deploy the bank's resources efficiently for income maximization. A high rating of Management quality displays the strength of growth of banks as well as high competency of the employees, which would help them to grow in the future (Majithiya&Pattani, 2010).

Bank liquidity refers to the ability of the bank to ensure the availability of funds to meet financial commitments or maturing obligations at a reasonable price at all times (Olagunju, David& Samuel, 2011). Adequate liquidity enables a bank to meet three risks namely: funding risk (the ability to replace net outflows of funds either through withdrawals of retail deposits or non-renewal of wholesale funds), Time risk (the ability to compensate for non receipt inflows of funds if the borrower fails to meet their commitment at a specific time), lending risk (ability to meet requests for funds from important customers). According to Dang (2011) adequate level of liquidity is positively related with bank profitability.

External factors represent forces beyond the control of the bank. External factors represent the general macroeconomic environment under which the commercial banks operate. Herrero and Del Río (2003) point out that deteriorating local economic condition for instance low GDP, inflation, interest and exchange rate cause bank failure. Further Hefferman (1996) asserts that macroeconomic factors are worsened by regulations imposed on banks. Decline in GDP result in fall of income and asset prices, leads to non-performing loans, lowers borrower's financial capacity and depresses the value of collaterals as secondary means of servicing debts (Wainaina, 2013). Demerguç-Kunt and Huizinga (2001), and Bikker and Hu (2002) found a positive correlation between bank profitability and the business cycle.

2.4 Empirical Studies

Irungu (2013) sought to determine the effect of interest rate spread on the performance of commercial banks in Kenya. The study found that there is strong positive relationship between financial performance of commercial banks and interest rate spread. According to the study, interest rate spread affected performance of assets in banks as it increases the cost of loans charged on the borrowers and regulation on interest rates had a significant impact on assets non-performance. The study recommended interest rate regulation by the government to safeguard borrowers from exploitation by commercial banks.

Ngure (2014) investigated the effect of interest rates volatility on the performance of commercial banks in Kenya. The study found that interest rates have significant linear positive effect on

financial performance of commercial banks in Kenya. Further, the study concluded that bank size and interest rate volatility had an effect on profitability of commercial banks. The study recommended policies be put in place to shield bank lending rates and ensure monitoring the same. To cushion consumers from exploitation by commercial banks, the study recommended that the Central Bank of Kenya exercise its monitoring roles strictly and discipline any commercial banks that may be increasing the interest rates arbitrary to boost their profitability.

Okech (2013) undertook a study on the effect of lending rates on the performance of commercial banks in Kenya. The study considered management efficiency and operating cost efficiency, in regard to lending interest rate. The study found that a weak positive relationship between lending rates and performance of commercial banks. Since interest rates accounted for only 14.4% of the revenue in commercial banks, the study recommended income source diversification for better performance.

Kipngetich (2011) examined the effect on interest rates on the performance of commercial banks in Kenya. The study used published incomes statement of commercial banks between 2006 and 2010 to model the relationship between interest rates and financial performance. The study concluded that in the short term, interest rates did not have a significant effect on profitability of commercial banks. The study recommended the application of diversification strategies to enhance performance of commercial banks.

3.0 RESEARCH METHODOLOGY

The study adopted an explanatory research design. This study adopted a census research design; of all the 43 commercial banks in Kenya. This study used secondary data. Multiple linear regression model was used to analyse the data using statistical package for the social sciences (SPSS) version 20.

4.0 RESULTS AND DISCUSSIONS

4.1 Descriptive Statistics

Table 4.1 below presents the descriptive statistics of the dependent and independent variables. The average ROA of the 43 commercial banks for the period of 2002 to 2014 was 2.8%. the average Lending interest ratio was 15.39% while the deposit interest rate ratio was 5.03%. The average asset quality ratio was 14.86% while the liquidity management was 41.71%.

Table 1: Descriptives

	N	Mean	Std.	Skewne		Kurtos	
	Statistic	Statistic	Deviation	ss	Std.	is	Std.
			Statistic	Statistic	Error	Statistic	Error
ROA	572	2.2346%	2.82474	2.65	0.102	42.635	0.204
Lending rate ratio	572	15.3906%	1.97989	0.642	0.102	-0.412	0.204
Deposit rate ratio	572	5.02706%	1.36597	0.306	0.102	-0.129	0.204
Asset	572	14.8615%	10.7671	0.616	0.102	-1.267	0.204

quality							
Liquidity							
management	572	41.7077%	3.53786	0.383	0.102	-0.563	0.204
Valid N							
(listwise)	572						

Skewness and Kurtosis assess the normal distribution of the data. Skewness results indicate that the data is slightly positively skewed. Kurtosis results indicate ROA was leptokurtic while lending interest rate ratio, deposit interest rate ratio, asset quality and liquidity management were platykurtic. The standard error of skewness and Kurtosis were 0.102 and 0.204 respectively. The rule of thumb suggests that the standard error of Kurtosis and skewness should be between -1.96 and + 1.96. Seeing as the two values fall within this limit, the departure of the data from normality is not too extreme.

4.2 Correlation Analysis

Pearson's correlation was used to test for association between the variables of the study. The results were presented in table 2. Results indicate that a moderate positive significant correlation existed between ROA lending interest rate ratio. A weak negative association was found between ROA and asset quality. The association between ROA and deposit interest ratio and liquidity management were both insignificant.

Table 2: Correlation Analysis

		ROA	Lending rate ratio	Deposit rate ratio	Asset quality	Liquidity managemen t
ROA	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	572				
Lending rate ratio	Pearson Correlation	.203**	1			
	Sig. (2-tailed)	0				
	N	572	572			
Deposit rate ratio	Pearson Correlation	0.019	.569**	1		
	Sig. (2-tailed)	0.655	0			
	N	572	572	572		
Asset quality	Pearson Correlation	-.153**	-.237**	-.666**	1	
	Sig. (2-tailed)	0	0	0		
	N	572	572	572	572	
Liquidity	Pearson Correlation	-0.066	-.177**	-.330**	.631**	1

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nt

	Sig. (2-tailed)	0.114	0	0	0	
N		572	572	572	572	572

4.4 Regression Analysis and Hypothesis Testing

Table 4.3 illustrates the model summary used in this study and indicates the adjusted R Square value which gives the most useful measure of the success of the model, hence from the table it is evident that the model had accounted for 12.8% of the variance in Return on Assets (ROA) of commercial banks in Kenya over the period of the study.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357a	0.128	0.121	2.6477695

Analysis of Variance (ANOVA) assesses the overall significance of the model. According to the table 4.4 $p < 0.05$, (0.000), the model of the study sufficiently or significantly explains the variation in performance of commercial banks.

Table 4: ANOVA test

	Sum of Squares	df	Mean Square	F	Sig.
Regression	581.037	4	145.359	20.720	.000b
Residual	397.057	567	7.011		
Total	4556.095	571			

A multiple regression was used to model the relationship between the independent variables and dependent variable. From the results in table a model equation is derived and presented below:

$$Y = 0.044 + 0.070X_1 - 0.164X_2 + 0.018X_3$$

Where

Y= Financial performance of Commercial Banks (ROA)

β_0 = the regression co-efficient

X1= Asset quality

X2= Liquidity management

X3= Interest income (log)

Table 5: Multiple regression

	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	-4.092	1.858		0.028
Lending rate ratio	0.537	0.071	0.376	0.000
Deposit rate ratio	-0.927	0.135	-0.448	0.000

Asset quality	-0.117	0.018	-0.447	-6.64	0.000
Liquidity management	0.107	0.041	0.134	2.594	0.01

The results in table 4.5 above indicate that there a positive significant relationship exists between the lending rate ratio and the performance of banks ($p < 0.05$). A unit increase in lending rate ratio leads to an increase in performance of banks by 0.537 units. Deposit rate ratio has a negative significant effect on the performance of commercial banks in Kenya ($p < 0.05$). A unit increase in deposit rate ratio leads to a decrease in performance of banks by 0.927 units. A negative significant relationship exists between asset quality and the performance of banks ($p < 0.05$). A unit increase in asset quality leads to a decrease in performance of banks by 0.117 units. A positive significant relationship exists between liquidity management and performance of commercial banks ($p < 0.05$). A unit increase in liquidity management leads to an increase in ROA by 0.107 units.

4.5 Discussion of Research Findings

Research findings indicated that the model had accounted for 12.8% of the variance in Return on Equity (ROA) of Kenyan commercial banks in the period covered by the study (2002-2014). This finding implies 87.2% of commercial banks' performance was accounted for by factors outside the model. Such factors could include the external business environment that the commercial banks operate in as well as other bank characteristics not covered by the study.

Findings also indicated that there was sufficient evidence that the model is useful in explaining the financial performance (ROA) of commercial banks as it was significant at 95% confidence level ($p = 0.000$). A positive significant relationship exists between ROA the lending rate ratio of commercial banks. Given that lending activities is the main activity of commercial banks, this outcome was expected. Similar findings were registered by Ngure (2011) and Kipngetich (2011). A positive significant relationship was also found to exist between ROA liquidity management of commercial banks. Moreover, there was a negative significant relationship between ROA and deposit interest ratio. A negative significant relation was also established between asset quality and performance. Liquidity management ratio was calculated by dividing the total loans by customer deposits.

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study used secondary data covering the period from 2002 to 2014 for analysis. The data was sourced from Central Bank of Kenya annual supervision reports. The researcher sought to determine the effect of interest rates on the financial performance of the commercial banks in Kenya. The collected data was entered into the Statistical Package for Social Sciences (SPSS) version 20 for analysis. Descriptive statistics was used to determine the relationship lending interest rates and financial performance.

Results indicated that the model of the study explained 12.8% of the dependent variable. The ANOVA tests further validated the model by indicating that it sufficiently explained the

variation of performance in commercial banks ($F=20.720$, $p=0.000$). Multiple regression indicated that there is a positive significant relationship between the lending rate ratio and the performance of banks ($p<0.05$). A unit increase in lending rate ratio leads to an increase in performance of banks by 0.537 units. Deposit rate ratio has a negative significant effect on the performance of commercial banks in Kenya ($p<0.05$). A unit increase in deposit rate ratio leads to a decrease in performance of banks by 0.927 units. A negative significant relationship exists between asset quality and the performance of banks ($p<0.05$). A unit increase in asset quality leads to a decrease in performance of banks by 0.117 units. A positive significant relationship exists between liquidity management and performance of commercial banks ($p<0.05$). A unit increase in liquidity management leads to an increase in ROA by 0.107 units.

5.2 Conclusion

The study established that lending rate ratio influence the financial performance of commercial banks in a positive way. Deposit interest ratio on the other hand negatively affects performance of commercial banks. Liquidity management and liquidity management influence performance positively and negatively respectively. The study concluded that there is a positive significant relationship between lending rate ratio and financial performance of commercial banks. The study also arrived at the conclusion that deposit interest ratio negatively affects bank performance. Moreover, the study concluded that liquidity management and asset quality affect performance positively and negatively respectively.

5.4 Recommendations

Following study results, it is recommended that commercial banks in Kenya should keenly manage their lending interest rates given that lending interest ratio is directly related to performance.

The study also recommends that commercial banks need to monitor the interest on deposits carefully. The deposit interest ratio is negatively affects performance. It represents the main expense by any commercial bank and therefore for a commercial bank to be profitable, they must maintain a reasonable spread. Commercial banks must strive to raise deposits at reasonable rates in order to on lend to the customers. Commercial banks that attract deposits cheaply are able to advance loans cheaply and therefore attract more borrowers.

It is recommended that banks should embrace prudent credit risk management to maintain appropriate asset quality. Credit information sharing and cross referencing with credit bureaus will ensure high risk borrowers are closely monitored. Such measure will result in a reduction of nonperforming loans improve the asset quality.

5.5 Limitations of Study

It is important to note that the study was not without limitation. The study used secondary data and was relied upon regardless of how it was collected and the various manipulations and assumptions that were used in order to prepare and present the data.

The study also relied solely on quantitative data. The study failed to incorporate qualitative information that would have revealed other aspects of the relationship between interest rates and performance of commercial banks. Such information would have been captured through a questionnaire an interview guide or focused group discussions.

The study only focused on 13 years (year 2002 to year 2014). Perhaps different results would have been found if a longer period was considered. While the study findings might hold in the short run, the same cannot be said about the long term with certainty.

The study also did not also put into consideration other factors that could have affected the performance of commercial banks. Macroeconomic factors perhaps would have added the explanatory power of the model.

5.5 Areas for Further Study

The study suggests that further studies should include a qualitative analysis of the relationship between interest rate and financial performance of banks. Such a study would involve interview of key informants in the banking sector and would provide hidden insights into the intricate relationship between interest rates and financial performance of banks.

Further areas of study should be focus on a longer time span, probably 20 to 30 years. This would clarify whether the observed relationship changes over the years. Such a study would call for advanced econometric and statistical analysis such as time series and panel data analysis.

Future studies should include macroeconomic factors and external environmental factors to improve the expiatory power of the model linking interest rates to financial performance of commercial banks. Such factors could include inflation, political instability, regulatory frameworks and spillover effects of financial crises.

REFERENCES

- Abreu, M. & Mendes, V. (2001). Commercial Bank Interest Margins and Profitability: evidence for some EU countries. In *Pan-European Conference Jointly Organised by the IEFS-UK & University of Macedonia Economic & Social Sciences, Thessaloniki, Greece, May.34(2).17-20.*
- Aburime, T. U. (2008). Determinants of Bank Profitability: Company-Level Evidence from Nigeria. *African Journal of Accounting, Economics, Finance and Banking Research* 4(4), 61-75
- Achou, T. F. & Tenguh, N. C. (2008). Bank Performance and Credit Risk Management. *Finance University of Skodve School of Technology and Society Journal*.6(4), 33-40.
- Albertazzi, U. & Gambacorta, L. (2009). Bank Profitability and the Business Cycle. *Journal of Financial Stability*, 5(4), 393-409.

- Al-Tamimi, H. & Hussein, A. (2010). Factors Influencing Performance of the UAE Islamic and conventional national banks. *Global Journal of Business Research*, 4(2), 1-9.
- Anbar, A. & Alper, D. (2011). Bank Specific and Macroeconomic Determinants of Commercial Bank Profitability: empirical evidence from Turkey. *Business and Economics Research Journal*, 2(2), 139-152.
- Athanasoglou, P., Delis, M. & Staikouras, C. (2006). *Determinants of bank profitability in the South Eastern European region*. (Bank of Greece)
- Auerbach, A. J. & Reishus, D. (1988). The effects of taxation on the merger decision. In *Corporate takeovers: Causes and consequences* (pp. 157-190). University of Chicago Press.
- Auerbach, A. J. (1988). *Retrospective capital gains taxation* (No. w2792). National Bureau of Economic Research.
- Baum, C. F., Caglayan, M. & Ozkan, N. (2009). The second moments matter: The impact of macroeconomic uncertainty on the allocation of loanable funds. *Economics Letters*, 102(2), 87-89.
- Bennaceur, S. & Goaid, M. (2008). The determinants of commercial bank interest margin and profitability: Evidence from Tunisia. *Frontiers in Finance and Economics*, 5 (1), 106-130.
- Berkowitz, J. & White, M. (2004). Bankruptcy and small firms access to credit. *RAND Journal of Economics*, 35(1), 6984.
- Bikker, J. A. & Hu, H. (2002). *Cyclical patterns in profits, provisioning and lending of banks*. De Nederlandsche Bank.
- Burns, A. & Groove, B. (2003). *The Practice of Nursing Research: Conduct, critique & utilization*. (4th ed.). W. B. Saunders Company
- Campbell, J. Y. & Shiller, R. J. (1987). Yield spreads and interest rate movements: A bird's eye view. *The Review of Economic Studies*, 58(3), 495-514.
- Central Bank of Kenya (2009). *Bank Supervision Annual Report 2009-2010*. Central Bank of Kenya, Nairobi.
- Chahal, H., & Sharma, R. D. (2006). Implications of corporate social responsibility on marketing performance: A conceptual framework. *Journal of Services Research*, 6(1), 205.

- D' Alberto, J. (2015). Interest rate. *Grant's Interest Rate Observer*. Retrieved from <http://www.grantpub.com/resources/interest-rate>
- Damena, B. H. (2011). *Determinants of commercial banks profitability: an empirical study on Deposit Money* (Doctoral dissertation, Addis Ababa University).
- Dang, U. (2011). The CAMEL Rating System in Banking Supervision: a Case Study of Arcada University of Applied Sciences. *International Business Journal* 3(9).67-89
- Demirgüç-Kunt, A.& Huizinga, H. (1999). Determinants of commercial bank interest margins and profitability: some international evidence. *The World Bank Economic Review*, 13(2), 379-408.
- Enyioko, N. (2012). Impact of Interest Rate Policy and Performance of Deposit Money Banks in Nigerian. *Global Journal of Management And Business Research*, 12(21).34-45.
- Felicia, O. O. (2011). Determinants of Commercial Banks Lending Behaviour in Nigeria. *International Journal of Financial Research*, 2(2), 1-12.
- Financial Sector Deepening Kenya, (2009). Definition of a standard measure for consumer interest rates in Kenya. <http://ssrn.com/abstract=1231064>
- Flamini, V., Schumacher, M. L., & McDonald, M. C. A. (2009). *The Determinants of Commercial Bank Profitability in Sub-Saharan Africa* (No. 9-15). International Monetary Fund.
- Froyen, R. T. (1996). The evolution of macroeconomic theory and implications for teaching intermediate macroeconomics. *The Journal of Economic Education*, 27(2), 108-115.
- Gale, D.&Özgür, O. (2005). Are bank capital ratios too high or too low? Incomplete markets and optimal capital structure. *Journal of the European Economic Association*, 3(2-3), 690-700.
- Gamra, S. B. & Plihon, D. (2011). *Revenue diversification in emerging market banks: implications for financial performance*. (Unpublished Doctoral dissertation, University of North Paris).
- Godspower-Akpomemie, E. I. (2013). *Market interest rate fluctuations: impact on the profitability of commercial banks* (Unpublished Doctoral dissertation, University of Capetown).

- Gregory, B. T., Rutherford, M. W., Oswald, S.& Gardiner, L. (2005).An empirical investigation of the growth cycle theory of small firm financing.*Journal of Small Business Management*, 43(4), 382-392.
- Heffernan, S. (2005).Modern banking. *London Journal of Business and Management Review (Oman Chapter)*, 7(11), 13-14.
- Herrero, A. G.& Del Río, P. (2003).Implications of the design of monetary policy for financial stability.*Macroeconomics*, 304008.
- Hoff, K.&Stiglitz, J. E. (1998). Moneylenders and bankers: price-increasing subsidies in a monopolistically competitive market. *Journal of Development Economics*, 55(2), 485-518.
- Idrees, K.& Din, M. 2007."Determinants of Interest Spread in Pakistan, "PIDE-Working Papers 2007:22, Pakistan Institute of Development Economics.*International Journal of Financial Research*, 2(2), 1-12.
- Irungu, P. N. (2013). *The Effect Of Interest Rate Spread On Financial Performance Of Commercial Banks In Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Ismi, A. (2004). *Impoverishing a continent: The World Bank and the IMF in Africa*.Canadian Centre for Policy Alternatives.
- Kamau, A. W. (2009). *Efficiency in the banking sector: An empirical investigation of commercial banks in Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Keynes, J. M. (1973). *The general theory and after: defence and development*. D. E. Moggridge (Ed.). Macmillan.
- Khan, W. A.&Sattar, A. (2014).Impact of Interest Rate Changes on the Profitability of four Major Commercial Banks in Pakistan.*International Journal of Accounting and Financial Reporting*, 4(1), 140-142.
- Kipngetich, K. M. (2011). *The relationship between interest rates and financial performance of commercial banks in Kenya* (Unpublished Masters Thesis, University of Nairobi).

- Kolapo, T. F., Ayeni, R. K. & Oke, M. O. (2012). Credit Risk and Commercial Banks' Performance in Nigeria: A panel model approach. *Australian Journal of Business and Management research*, 2(2), 31-38.
- Kothari, C. R. (2004). Research Methodology: Methods and Techniques. *New Age International Journal*. 5(1), 40-55.
- Lekachman, R., & Keynes, J. M. (1964). Keynes' General Theory; Reports of Three Decades.
- Majithiya, R & Pattani, A 2010. *Rating the performance of the bank through CAMELS model*. (Post Diploma thesis, Tolani Institute of Management Studies, India).
- Mang'eli, M. Y. (2012). *Relationship Between Interest Rate Spread and Financial Performance of the Commercial Banks in Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Mbai, A. M. (2006). *The Relationship Between Interest Rate Risk and Net Interest Income of Commercial Banks Quoted at The Nairobi Stock Exchange* (Unpublished Masters Thesis, University of Nairobi).
- Moussu, C. & Petit-Romec, A. (2014). ROE in Banks: Myth and Reality. *Pakistan Journal of Commerce & Social Sciences*, 4(1), 40-55.
- Mugenda, M. O. & Mugenda, A. G. (2003). *Research Methods in Education: Quantitative and Qualitative Approach*. Nairobi: ACTS.
- Mukuddem-Petersen, J. A. N. I. N. E., Petersen, M. A., Schoeman, I. M. & Tau, B. A. (2008). Dynamic Modelling of Bank Profits. *Applied Financial Economics Letters*, 4(3), 157-161.
- Munyambonera, E. F. (2012). *Determinants of Commercial Bank Performance in Sub-Saharan Africa*. (Doctoral dissertation, Makerere University).
- Murthy, Y., & Sree, R. (2003). A Study on Financial Ratios of major Commercial Banks. *Research Studies, College of Banking & Financial Studies, Sultanate of Oman*. 3(2), 490-505.

- Nazir, T. (2010).Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model.*Pakistan Journal of Commerce & Social Sciences*, 4(1), 40-55.
- Ngugi, R. W. (2001). An empirical analysis of interest rate spread in Kenya.
- Ngumo, L. W. (2012). *The Effect of Interest Rates on The Financial Performance of Firms Offering Mortgages in Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Ngure, I. M. (2014).*The Effect of Interest Rates on Financial Performance of Commercial Banks in Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Ogilo, F. (2012).An investigation into the existence of fads in the initial public offering market in Kenya.
- Ogunbiyi, S. S.&Ihejirika, P. O. (2014). Interest Rates and Deposit Money Banks' Profitability Nexus: the Nigerian experience. *Arabian Journal of Business and Management Review*, 3(11), 133-140.
- Okech, F. O. (2013). *The Effect Of Lending Interest Rates On Financial Performance Of Commercial Banks In Kenya* (Unpublished Masters Thesis, University of Nairobi).
- Olagunju, A., David, A. O.& Samuel, O. O. (2012).Liquidity Management and Commercial Banks' Profitability in Nigeria.*Research Journal of Finance and Accounting*, 2(7-8), 24-38.
- Oloo, O.(2009).The Banking Survey 2009.*Think Business*. 5(4), 38-45
- Olweny, T.&Shipho, T. M. (2011).Effects of banking sectoral factors on the profitability of commercial banks in Kenya.*Economics and Finance Review*, 1(5), 1-30.
- 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.
- Pastory, D.&Mutaju, M. (2013).The Influence of Capital Adequacy on Asset Quality Position of Banks in Tanzania.*International Journal of Economics and Finance*, 5(2), 179-189.
- Paul, A. S. (1945). The effects of interest rate increases on banking system.*The American Economic Review*, 35(1), 16-27.

- Petersen, M. A. & Schoeman, I. (2008, July). Modeling of Banking Profit via Return-on-Assets and Return-on-Equity. *In Proceedings of the World Congress on Engineering*, 2, 1-6).
- Pyle, D. H. (1971). On the theory of financial intermediation. *The Journal of Finance*, 26(3), 737-747.
- Rustam, S., Bibi, S., Zaman, K., Rustam, A. & Haq, Z. U. (2011). Perceptions of Corporate Customers Towards Islamic Banking Products and Services in Pakistan. *The Romanian Economic Journal*, 41, 107-123.
- Samuelson, P. A. (1945). The effect of interest rate increases on the banking system. *The American Economic Review*, 24, 16-27.
- Sargent, T. J. (2001). *The Conquest of American Inflation*. Princeton University Press.
- Saunders, A. & Schumacher, L. (2000). The determinants of bank interest rate margins: an international study. *Journal of international money and finance*, 19(6), 813-832.
- Saunders, A., & Allen, L. (1999). *Credit risk measurement*. New York: John Wiley
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*. (5th Ed.). London: Prentice Hall.
- Staikouras, C. K. & Wood, G. E. (2004). Determinants of European bank Profitability. *International Business and Economic Research Journal*, 3(6), 57 – 68.
- Thygeson, K. J. (1995). *Management of financial institutions*. Harpe Collins.
- Wainaina, G. K. (2013). *Effect of Macroeconomic Factors on Commercial Banks Lending to Agricultural Sector in Kenya* (Doctoral dissertation, University of Nairobi).