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ABSTRACT

Despite the tight Interest rate regulations, Kenya continues to witness massive collapse of banks coupled with huge financial scandals. It's evident that Interest rate regulations are critical issue in dealing with bank failures that has been discussed in different concepts and perspectives. Studies on interest rate regulations and financial performance have produced conflicting results hence there was need for further research with a bias in Kenyan banking sector. This study examined the influence of Interest rate regulations on financial performance of banks in Kenya. The population was 43 banks for the period 2014 to 2018. Descriptive research design was used since it's suitable for description and measurement of phenomena with high level of accuracy. Survey methodology was applied to all 43 banks since this enhances validity of data obtained by addition of relevant information and cases to the study. Secondary data obtained from CBK annual reports and banks end year financial statement was used since data obtained was valid. SPSS was used to analyze data and presented using tables since this could easily communicate the findings to readers. The study findings showed a positive correlation between Interest rate regulations and financial performance (R= 0.547 with ROE and ROA). It was evident from results that Interest rate regulations have positively contributed to financial performance of commercial banks in Kenya and there was variation on financial performance due to changes in interest rate regulations. The study recommended that commercial banks should adhere to Interest rate regulations to ensure financial stability and increased financial performance coupled with increased volume of business. It also recommended that shareholders should play critical role of ensuring banks management adhere to and implement good corporate governance. The study concluded that interest rate regulations influenced financial performance of commercial banks in Kenya.

KEY WORDS: *Interest Rate Regulations, Financial Performance, Commercial Banks*

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INTRODUCTION

Macro-Prudential regulations refers to policies used to deal with systemic risks and aim at protecting the stability of the entire financial system and ensure its strengthened to withstand adverse shocks, this ultimately ensure enhanced economic growth and development (Bank of Slovenia, 2015). A study by Hartmann (2010) acknowledges that systemic risk is the likelihood that turmoil's in the financial system have greater negative effects on the entire financial market and the real economy that depend on the combined action of financial institutions such as aggregate shocks. However, a study by Stein (2011) on a macro prudential approach to financial regulation views macro prudential regulations as mechanisms that control the social costs caused by increased balance sheet shrinkage when many financial firms are hit with a similar shock.

Globally, a study by Haldane (2011) shows that macro prudential policy was used in the United States by Roosevelt to boost growth as the country faced double-dip recession and reduced lending to the real economy. A study by IMF (2013) on key aspects of macro-prudential policy find that it assesses systemic risk and endeavour to fill regulatory and information gaps, but its cross-border effects requires international coordination. Moreover, IMF (2011) acknowledges that studies done by central banks provide an overview of its experience with macro prudential regulations; they found that macro prudential regulations have been most widespread in emerging market countries in Asia and Latin America. Locally, a study by Chepkemoi (2016) on corporate governance and banking sector in Kenya found that widespread existence of systemic challenges in the banking sector: questionable governance practices, weak supervision and rampant fraudulent activities. These results are consistent with Begley, Purnanandam and Zheng (2014) that found out that banks under estimate their risks so as to lower their current regulatory capital requirements at the cost of potentially higher future capital requirements that follow if the under estimation is detected. Conversely, a study by Kivwanyiri, Mutua and Malenya (2016) investigated how bank regulation affects non-performing loans and find that there is negative correlation between bank regulation and non-performing loans.

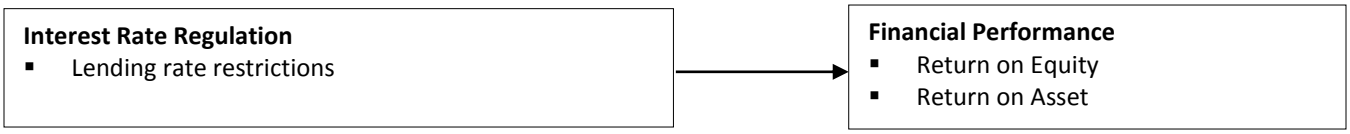
However, CBK Supervisory Department(2013), Prudential Guidelines which took effect on 1st January 2013 outlines the prudential requirements for capital adequacy, liquidity, single borrower limits and restrictions on facilities to insiders on both a consolidated and a solo basis. Regulations are enforced by government regulatory bodies and international groups. Similarly, in Kenya the financial sector is regulated by the CBK which is a government institution

Statement of the Problem

Kenya has experienced sudden unexpected systemic collapse of three banks (Musyoka, 2016). This was evident by placing of Imperial bank and Dubai bank under receivership and subsequent collapse of Chase bank considered as too big to fail send panic across banking sector in Kenya (CBK, 2016). The key cause of failure of banks was attributed to violation of banking laws, macro prudential regulations coupled with deteriorating cash reserves (Abdallah, 2016). Failure of prominent banks took place recently in the year 2015/2016. Based on statistics from Info Hub Kenya 2016 report, a total of 13 banks had previously collapsed in Kenya and the recent 3 banks raises the totals to 15 banks, which pointed to a worrying trend. This posed risks to safety of stakeholder's deposits, caused bank panic withdrawals and erode their confidence and loyalty. Further, National Bank of Kenya, Consolidated Bank and Development Bank of Kenya were in operational crisis with negative liquidity position as at year ended 2018. Treasury had approved sale of these three lenders. Moreover, banking crisis escalated recently when Imperial Bank depositors resolved to sue CBK accusing it of

mishandling of banks receivership and jeopardizing their savings hence setting a bruising court battle with bank regulatory body in Kenya (Wanjala, 2017). Contrary, Macpherson (2016) blames the turmoil in banks on existence of collusion between regulators, auditing firms and corporate clients coupled with exaggerated profits by banks, putting at risk investors' money and the entire Kenyan economy.

LITERATURE REVIEW



Independent Variable **Dependent Variable**

Figure 1: Conceptual Framework

Interest rate is the rate a bank charges as interest to borrower or the rate a bank pays to its savers on amount they have saved with the bank (Kariuki, Maina & Kathomi, 2017). As pointed out by Koch and Macdonald (2015), interest rate regulations are codified into banking and central bank laws and spells out the highest interest rate that banks are expected to charge. In addition to this, Ojeaga (2014) states that interest rate regulatory measures are enacted to prevent banks from charging more than certain level of interest that has been set by bank regulator. CBK (2012) adds that the maximum interest rate chargeable by credit facility is below 4 per cent of the base rate set by the central bank of Kenya. Efforts to promote financial stability through adjustments in interest rates may also increase the volatility of inflation and employment, as excessively high interest rates may be required. A study by Mishkin, (2010) find that increase in interest rate attracts capital inflows which strengthens the local currency while Sarkar (2011) disagrees with this notion and points out that there are other factors that influence interest rate such as levels of government debt, the sentiment of financial markets, terms of trade, political stability, and overall economic performance.

Moreover, Salvatore and Fatemi (2012) asserts that commercial banks set their lending rate above the base rate and high interest rates may be unaffordable by majority of people and business since not everyone is able to borrow. On the other hand, higher interest rates encourage more people to save because they receive more on their savings. This result in to reduction in liquidity and capital required which usually slows the economy down. According to info track data services (2013), lower interest rates make it easier for farmers, manufacturers, and other businesses to borrow to invest in equipment, inventories, and buildings. This increased business investment in turn makes the economy grow faster as productivity or output per worker increases faster. European System Risk Board (2016) find that low interest rate increase financial stability risk and increase profitability pressures and weakening resilience of financial sectors, implying a possible risk of highe

METHODOLOGY

This study employed descriptive research design since it is appropriate for describing and measuring phenomena with a greater level of accuracy. The study employed survey methodology which involves collection of data to facilitate the prediction of the relationship between variables using document analysis and observation through schedules. Target population of this study was 43 banks in Kenya. Secondary data worksheets were used to collect data on both macro-prudential regulations and financial performance of banks. This was obtained from annual reports by Central Bank of Kenya (Kivwanyiri, 2016). Secondary data from documented sources was used. Data was coded and analysed using SPSS version 20

and Excel spread sheet. Data was organized and keyed into the computer software. The analysis focused on one independent variable which was interest rate regulations and dependent variables of financial performance of banks as measured by return on equity and return on investment. Inferential statistics adopted included regression analysis and Pearson correlation. Data was presented in form of table because they easily communicate research findings to the reader. These also backed up arguments in the study. Regression model that was used in analysing the influence of prudential regulations on financial performance of banks in Kenya was:

The Model was $YFP = \beta o + \beta_1 X_1 + e$

Where YFP = Financial Performance of Banks

Bo = Constant Term

e = error term

X_1 = Interest Rate Regulations

β_1 = Regression Coefficient

RESULTS

The study sought to determine the influence of interest rate regulations on financial performance of Banks. This variable was operationalised by the CBK bank rate and interest rate restrictions. The end results was presented in table 1.

Table 1: Interest Rate Regulation

No.	Constructs of IRR	Mean	Std Deviation
1	CBK bank rate regulation	9.9000	1.38744
2	Interest rate restrictions	16.76	0.8417

The study also analysed financial performance using descriptive statistics. Financial performance was operationalised using return on equity and return on asset and their results presented in table 2.

Table 2: Financial performance

No.	Constructs of FP	Min	Max	mean	Std Deviation
1	Return on Equity	23.90	30.00	26.88	2.703
2	Return on Assets	2.90	4.70	3.80	0.8426

Test of Statistical Assumptions

The study carried out tests on statistical assumptions such as normality, linearity, test of independence, homoscedasticity and multicolinearity using Shapiro-wilk test, ANOVA test, Durbin Watson test, Levine test and variance inflation factor (VIF) respectively.

ANOVA tested the linear regression assumption and non-linearity is exhibited when the p-value < 0.05 hence a p-value > 0.05 means that there is linear relationship. The p-values were greater 0.05 which means that the linear regression assumption in the linear regression was met.

Normality test was done using Shapiro-Wilk test. When the results of the test give a significance value < 0.05 the normality assumption has been violated and when the value is > 0.05 the variables had a normal distribution. The results showed that normality was met since values are > 0.05.

The study adopted Durbin Watson (DW) test to check that the variables in the study were not interdependence. The results showed that there was no interdependence among the variables because DW statistics for all the variables was between 1.5 and 2.5 prescribed value for residual independence.

To test for Homoscedasticity Levine test was used. The end results indicated that there was no homoscedasticity because the p values were greater than the 0.05 threshold set for the test.

Table 3: Assumption of Linear Regression

	Threshold Assumption is met if	Interest Rate Regulations
Normality test Shapiro-Wilk	p>0.05	0.733
Linearity	p>0.05	0.142
ANOVA Test		
Test of Independence	1.5-2.5	1.918
Durbin-Watson		
Homoscedasticity Test	p>0.05	0.073
Levine Test		
Multi-collinearity Test	VIF 10 Max	0.633 (1.595)

Correlation

The study adopted pearson correlation to determine the relationship between the independent and dependent and also check multicollinearity between the independent variables. A Pearson value greater than 0.8 showed the existence of multicollinearity.

Table 4: Correlation Matrix

		FP				
Interest Rate Regulations	Pearson Correlation	-.304**	.121	.356*	.549**	1
	Sig. (2-tailed)	.618	.491	.037	.001	
	N	44	44	44	44	44

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

Interest rate regulations showed a weak negative association with financial performance.

Regression Analysis

Regression analysis was used to show the relationship between interest rate regulations and financial performance therefore how interest rate regulations can be used to predict the financial performance of banks in Kenya. The results of the study were indicated in table 5.

Table 5: Interest Rate Regulation and Financial Performance

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
1		.257[a]	.066	-.246	.94039
Model		Unstandardized Coefficients	Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.343	3.381		1.580	.212
	Interest Rate Regulation	-.156	.339	-.257	-.460	.677

Overall Regressions Analysis

Multiple Linear Regression analysis for Macro Prudential Regulation dimensions on financial

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performance was conducted in order to find out whether prudential dimension as a whole jointly influence financial performance of banks in Kenya. This facilitated the formulation of the model of the study and its R square. The outcome of the analysis was in table 6.

Table 6: Overall Regression Analysis

R	R^2	Adjusted R^2	Df	F	Sig.
.547[a]	.299	.261	(1,43)	23.106	.000[b]

a. Predictors: (Constant), Interest Rate Regulations

b. Dependent Variable: Financial performance

From the table, it was evident that there is positive moderate linear relationship between Financial Performance and all the independent variables which is Interest rate regulations with correlation coefficient r = 0.547 while coefficient of determination resulting from this analysis was (r^2) = 0.299, and this showed that 29.9% of proportion of financial performance can be accounted for by the all independent variables in this study while 70.1% of the amount of financial performance can be accounted for by other factors which have not been included in this model.

It was noted from results given by ANOVA that F test gave a value of F (1, 42) =23.16, p < .01, this attempts to support the goodness of fit of the model in accounting for variation in financial performance. This showed that macro prudential regulations are important predictor of financial performance of banks in Kenya.

Table 7: Model Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	.140	.328	.293	.426	.671
X_1	.399	.108	.321	3.683	.000

a. Dependent Variable: Financial Performance

From the table, Interest rate regulations carried positive and significant predictive power (P<0.05). If When there is no prudential regulations, financial performance was found to be 0.140, p>0.05 indicating that while financial performance is still positive, it is insignificant. These results were in line with those of Gahuthu (2016) who found low financial performance before regulations and a higher financial performance after regulations. The results also agreed with those made by Mwega (2014) and Mureithi (2012) who found that there is a positive relationship between prudential regulations and financial performance of commercial banks as shown by increased profitability and strengthened banking system resulting into financial stability. Recent research by Kivwanyiri *et al.* (2016) also points out similar trend of finding that there exist a positive relationship between prudential regulations and financial performance. However, this result fails to agree with those made by Mwogeli (2012) and Vianney (2013) who both found that there is no relationship between prudential regulations and financial performance of commercial banks.

A regression of all these independent variables with regard to financial performance through what is referred to as multiple linear regression analysis resulted into a model that is:

Financial Performance = 0.140 **+**0.399$\mathbf{X_1}$

SUMMARY

It was evident from the findings that there is positive statistical significant of interest rate regulations on financial performance of banks in Kenya. Therefore to ensure that commercial banks sustained improvement in their financial performance, they need to strictly adhere to the interest rate regulations. This end result agreed with those found by Mishkin (2010) that interest rate restrictions and CBK bank rate has a positive relationship with return on equity evidence from banks in Kenya. Info track (2013) investigated that lower interest rate regulations may result into faster growth of economy due to increased investment that result from reduced bank lending rate.

CONCLUSIONS

Commercial banks experience financial crises and poor financial performance because of their own fault of violating interest rate regulation that have been set by CBK.

RECOMMENDATIONS

Separate of prudential supervision from market conduct supervision to ensure high level of coordination in overseeing functions of different aspect of same institution. This ensures this two functions are independent and given greater attention

CBK regulator and Unions of banks through joint effort should establish convenient and practical credit facilities management rules of conduct cut long channels that makes loans facilities expensive and attract more costs.

Commercial banks should abide by CBK laws and interest rate regulations to enjoy benefits of increased business. Competent board of directors should be elected and even employees recruited based on their competence, skills and knowledge. Commercial banks should come up with policies that act as a standard practice in order to guide their employees. This facilitates performance management leading to increased efficiency and reduction of costs. Commercial banks should design credit facilities products that are tailor made to meet specific needs of customers and this boosts customer loyalty and confidence.

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