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INFLUENCE OF PRUDENTIAL REGULATIONS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

Prudential regulations have often been associated with financial behavior of banks. Efforts to revive ailing and collapsing banks have always focused on tightening prudential regulations in an effort to curb financial crises in the banking sector and promote financial stability in the whole financial system. This study investigated the influence of credit facilities regulations on financial performance of banks in Kenya. The population was 43 banks for the period 2012 to 2016. Descriptive research design was applied due to its accuracy. Survey methodology was applied to all 43 banks since this enhanced 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. SPSS was used to analyze data and presented using tables because this was easier to communicate the findings to readers. The study findings showed a positive correlation between prudential regulations and financial performance (R= 0.547 with ROE and ROA). It was clear that prudential regulations had positively contributed to financial performance of commercial banks in Kenya and there was variation on financial performance due to changes in credit facilities regulations. The study recommended that commercial banks should adhere to prudential regulations to ensure financial stability and increased financial performance coupled with increased volume of business. Furthermore, CBK should discourage additional costs on credit facilities through designing convenient loan management protocols and shorten long channels involved while bank managers should invest in liquid assets and improve on their credit policies in order to increase their financial performance. The study concluded that credit facilities regulations influenced financial performance of commercial banks in Kenya.

Key Words*: Prudential Regulations, Credit Facilities Regulations and Financial performance*

INTRODUCTION

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. A study by ErdemÖzen and Ünalmış (2017) shows that credit facilities regulations are effective in dealing with credit growth and the number of MPP tools matters a lot since defective measures may fail in tackling leakages and hinder their ability to deal with global liquidity shock. 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. More importantly, Vardulakis*et al.* (2014) notes that understanding prudential regulation is essential because of its trade-off; regulatory policies reduce pro cyclicality and financial crises. Prudential regulations pose challenge in a number of countries; however it stabilizes and strengthens banking sector (Sinha, Kumar & Dhal, 2011). Strengthening the institutional framework facilitates the use of macro prudential policy instruments to address systemic risks (Martinez, Monem& Prasad, 2016). A study by Bechis*et al.* (2013) on systematic risk in banking sector found that systemic crises are regarded as rare events. On the contrary, banking crises have become more common recently hence there is need for macro prudential regulation approach so as to tackle crises in banking sector.

Prudential regulation deals with systemic risks and recognizes the relevance of general equilibrium effects and how the financial sector interacts with the real economy (Hansen *et al*., 2014). On other hand, Mayer and Gordon (2011) Systemic risks necessitate regulators switch from "micro prudential" to "macro-prudential" regulation. Additionally, IMF (2011) argues that the former regulates individual institutions while the latter protects financial systems as a whole.

According to the Monthly Economic Review (2016) as per CBK records total profit before tax among banks increased from 110.1 billion in August 2016 to 121.0 billion in September 2016, total liquidity ratio rose from 41.9 billion to 42.9 billion, while total assets grew from 3689.2 billion to 3784.6 billion. Financial results for 1st quarter ended march, 2017 shows banks drop in profit due to tighter operating environment especially capping of interest rates (Njini, 2017). CBK quarterly report (2016) points out that Chase bank and imperial bank were excluded because they are under receivership and statutory management respectively.

Financial performance of commercial banks is measured by ascertaining return on equity (ROE)and return on assets (Understanding Financial Ratios, 2015). Evidence from Siringoringo (2016) on effect of financial performance on company's value and shows that financial performance does not influence company's value.

The development witnessed in banking sector in Kenya dates back before the colonial period (Baborska, 2013). Earlier banks focused on facilitating international trade but with time capitalised on banking by settler farming farmers who needed credit facilities

Dynamics in the banking system led to mushrooming of indigenous banks, the first local bank in Kenya was Cooperative bank that originally served as a cooperative Society with an aim of meeting the demand of farmers in 1968 (Kiptoo, Kimotho&Gatuguta, 2014).

Thereafter, Kenyan banking sector has continued to grow, this reflects country's growth, prosperity and development (Korir, 2015). Despite this, lending by commercial banks is not supporting inclusive growth

since it only dwells on payslip lending and property market lending and ignores core productive sectors such as manufacturing, agriculture and SMEs (King, 2015).

Statement of the Problem

Three commercial banks in Kenya failed and subsequently closed indefinitely while others were put under receivership (Musyoka, 2016). This was a case of Imperial bank and Dubai bank(CBK, 2016). Contrary, Macpherson (2016) blames the turmoil in banks on existence of collusion regulators and acute mismanagement.KPMG (2017) concludes that macro-prudential regulations greatly influence performance of banks and there should be mechanism for identifying financial crises and systemic risk so that we are not caught unaware by bank failures. Hence more has to be done on strengthening enterprise risk governance systems in order to ensure banks are able to withstand shocks that threaten their existence. From literature, it's evident that macro prudential regulation is a critical issue in dealing with bank failures that has been discussed in different concepts hence there is need for this study to bridge the gap and explore deeply on the influence of macro prudential regulation on performance of banks in Kenya.

Research Objectives

The main objective of this study is to establish the Influence of Macro prudential regulations on financial performance of Banks in Kenya. The specific objectives was:-

- To determine the influence of credit facilities regulations on financial performance of commercial banks,

LITERATURE REVIEW

Theoretical Review

Loanable Funds Theory

Loanable funds theory is the amount of money available to borrowers due to changes in interest rates and other government laws. Interest rates are determined by demand and supply of loanable funds while their intersection is what forms their interest rate (Anokwuru, 2017). In credit risk, the lender is uncertain if the loan provided will be repaid as per the contractual documents. It includes the default risk which states that the lender is unlikely to recover both the principal and the interest rate payable by the client. For the protection of deposits, the regulator must be assured that the organization can at least be able to pay a proportion of shareholders' funds in the event of insolvency and liquidation (Mishkin & Eakins, 2011)

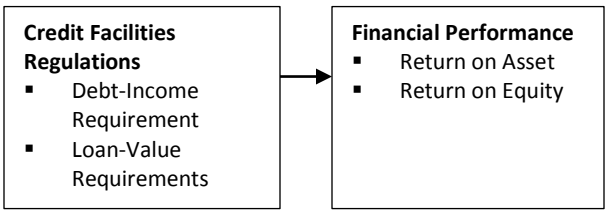
Credit Scoring Model

This model utilises credit attributes of the borrower based on their past records so as to determine their repayment ability in an effort to reduce default rate (Bensic, Susac&Sarlija, 2006). Similarly, KBA (2013) defines credit score as a measure of credit risk using standardised formula. Total credit score is computed based on value of each factor that has been examined and finally comparison made in reference to established cut-off point. Then decision is made on either to grant loan request or reject it (Tafti&Nikbakht, 1993). Credit scoring model contributes intensely in enabling banks make the right decision in granting credit to potential borrowers and contributes to good credit risk management practices (Njoroge, 2014).

Provision of credit facilities has been the life line of many banks since they have been generating a significant portion of their income from this source. Unfortunately, this has been the source of financial crises bedevilling many banks in Kenya due erroneous or fraudulent provision of credit facilities.This study used this model so as to facilitate adherence to credit facilities regulations, crackdown on unscrupulous banks engaging in illegal credit transactions ensure successful credit monitoring among banks in Kenya. Customers should be thoroughly evaluated before being granted their loan application request. This will

further contribute to better financial performance of banks and curb the problem of frequent bank failures in Kenya.

Conceptual Framework



Independent Variables Dependent Variable

Figure 1: Conceptual Framework.

Source: Author (2018)

Credit Facilities Regulation

Credit facility can be defined as a variety of different loans that a bank can use to meet it financing needs (Peterson, 2016). Recently, CBK introduced new requirements for lenders to set aside a provision for bad loans, a move that saw many banks in Kenya revise their financial statements (Wafula, 2016). Moreover, Strachan, Spoth and Nixon (2017) postulates that although credit indicators have been favourable bank regulator has cautioned that credit risk is building in financial system hence it's necessary to enhance credit facilities regulation. Consequently, CBK Legislation and Guidance (2017) notes that this requirement is aimed at protecting depositors, reducing systemic risk; avoid misuse of banks by criminals and direct credit to favoured sectors so as to ensure banking confidentiality. CBK (2015) press release adds that the launch of credit website by the prudential regulator aims at providing information on fees and charges on credit facility. Credit seekers are also able to know the cost of credit before taking a loan (Juma, 2017).

METHODOLOGY

This study employed descriptive research design since it is appropriate for describing and measuring phenomena with a greater level of accuracy. This study employed survey methodology. Survey methodology 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). Data was collected from Central bank annual reports and from banks end year financial statement from 2012 to 2016 (Parab, 2013). This covered five recent years when banking sector was been experiencing macro prudential reforms despite the sudden failure of banks. Data was coded and analysed using SPSS. Inferential statistics adopted include regression analysis and Pearson correlation. This was crucial in finding out the strength and relationship that exists between independent and dependent variables. Data was presented in form of table because they easily communicate research findings to the reader. Regression model that was used in analysing the influence of prudential regulations on financial performance of banks in Kenya. The model was $YFP= \beta o +\beta_3 X_3+e$

Where YFP = Financial Performance of Banks

Bo = Constant Term

e = error term

X_3 = CreditFacilitiesRegulations

β_3 = Regression Coefficient

This model was thoroughly tested so as to determine its validity on establishing the relationship between macro prudential regulations and financial performance of banks in Kenya.

RESULTS

In an attempt to determine the influence of independent variable as represented by credit facilities regulations on financial performance of banks as represented by return on equity and return on asset. The results of descriptive analysis were presented as follows:

The study investigated the influence of credit facilities regulations on financial performance of banks in Kenya. Credit Facilities was operationalised by Debt-income requirement and loan value requirement and results presented in table 1.

Table 1: Credit Facilities Regulations

No.	Constructs of CFR	Mean	Std Deviation
1	Debt- income requirement	4.356	0.3915
2	Loan- value requirement	5.04	2.312

From table 1, when debt income requirement was used, mean and standard deviation was 4.356 and 0.3915 respectively while Loan to value requirement had a mean of 5.04 and standard deviation of 2.312.

Financial performance

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 was 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 was > 0.05 the variables had a normal distribution. The results showed that normality was met since values are > 0.05.

The results indicated that credit facilities regulations had a VIF value of 1.475 and tolerance value of 0.678and therefore we can conclude that there was no multi-collinearity among the variables.

This study adopted Durbin Watson (DW) test to check that the variables in the study were not interdependence. The results as shown in the table 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 are greater than the 0.05 threshold set for the test.

Table 3: Assumption of Linear Regression

	Threshold Assumption is met if	Credit Facilities Regulations
Normality test Shapiro-Wilk	p>0.05	0.665
Linearity	p>0.05	0.100
ANOVA Test		

Test of Independence	1.5-2.5	2.014
Durbin-Watson		
Homoscedasticity Test	p>0.05	1.924
Levine Test		
Multi-collinearity Test	VIF 10 Max	0.724 (1.378)

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			
Credit Facilities Regulations	Pearson Correlation	-.814**	.199	.199	1
	Sig. (2-tailed)	.094	.0465	.0465	
	N	44	44	44	44

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

Credit facilities and financial performance showed a strong negative association. Mamatzakis (2013) and Maina (2016) also found a negative association between credit regulation and financial performance while this finding disagrees with those made by Mamatzakis and Kalyvas (2014) who found a positive association between credit regulations and financial performance.

Regression Analysis

The results on credit facilities regulations and financial performance showed that there was a relationship between credit facilities regulations and financial performance. The results further showed that the coefficient of determination (R^2) is 0.668 which means that 66.8 % of financial performance can be explained by credit facilities regulations where a change in credit facilities regulations by 1.760% would lead to change in financial performance by 1%.

Table 5: Credit Facilities Regulations and Financial Performance

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
1		.817[a]	.668	.558	.56039
Model		Unstandardized Coefficients	Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.46	3.128		3.665	.035
	Credit Facilities Regulation	-1.76	.716	-.817	-2.458	.091

Regressions Analysis

Multiple Linear Regression analysis for Macro Prudential Regulation dimensions on financial

performance was conducted in order to find out whether Macro 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.

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), Credit Facilities Regulations.

b. Dependent Variable: Financial performance

From table 6, it was evident that there was positive moderate linear relationship between Financial Performance and all the independent variables which included capital requirement regulations, Liquidity requirement regulations, and Interest rate regulations with correlation coefficient r = 0.547 while coefficient of determination resulting from this analysis was (r^2) = 0.299, and this shows 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 attempted to support the goodness of fit of the model in accounting for variation in financial performance. This showed that macro prudential regulations were 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	.238	.073	.259	3.240	.002
X_2	.367	.085	.396	4.325	.000
X_3	.372	.079	.381	3.528	.000
X_4	.399	.108	.321	3.683	.000

a. Dependent Variable: Financial Performance

Credit facilities 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 was still positive, it was insignificant. Finally, as the variables capital requirement regulations and interest rate regulations are controlled, liquidity requirement regulations with a beta of 0.399 was statistically significant demonstrating that increase in liquidity requirement by 1% leads to increase in financial performance by 0.399. Multiple linear regression analysis resulted into a model that is:

Financial Performance = 0.140 + + 0.372X_3

CONCLUSIONS

From findings of the study credit facilities have negative relationship with financial performance. As more credit facilities were formulated and imposed, financial performance declined as banks struggle to adhere to them which may also affect lending. This result was in line with Mae (2017) who found that

debt income ratio has a negative relation with financial performance of banks in Kenya. Montana (2012) study has established that all the banks monitor loans to ensure proper payment. This shows that banks should carry out careful scrutiny on borrowers when extending credit facilities to them so as to ensure they reduce the rate of default since by doing so they will have a reasonable opinion that the borrower will be able to pay back both the principal amount and interest rate charged. This research found that most banks do very little or nothing in coming up with borrower report that showed how they were paying loans that has been extended to them but nevertheless CBK which was their macro prudential regulator had come up with information sharing mechanism to ensure banks share information about credit history of their client which is seen as an effort to reduce rate of default from clients that could potentially plunge them into financial crises. Gatuhu (2013) findings show that adherence to credit facilities regulations by the banks influence their financial performance and their ability to deal with financial shocks in banking sector. Wachira (2015) did a study on credit facilities regulations and financial performance in Kenya and found that credit facilities have a positive relation to financial performance of Banks.

RECOMMENDATIONS

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 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.

CBK should delegate credit rating and information sharing responsibility and support it by sufficient resources and legal measures so as to continuously update commercial banks on impending risks and to enable banks take appropriate steps to avoid, reduce or eliminate.

Areas for Further Research

Another study that can take into account many years like let's say 10 years was recommended since this study limited itself to only five years from 2012 to 2016. Since this study used secondary data from CBK annual reports, another study that utilize primary data should be carried out.

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