

Effects of the Central Bank of Kenya Prudential Guidelines on the Performance of Commercial Banks in Kenya

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Abstract : Bank prudential guidelines are a form of government procedures which subjects the banks to certain requirements, boundaries and strategies. These regulations create transparency between the banks and the customers. It has been proven that the absence of these regulations can affect the banking system. Forming relevant and good rules for banking activities can impact the banking system drastically and increase the performance of the banks. The main aim of the study was to investigate the effects of the Central Bank of Kenya prudential guidelines on the performance of commercial banks. Specifically, the study examined the effects of corporate governance (CBK/PG/02), capital requirement (CBK/PG/03), credit risk management (CBK/PG/04) and liquidity management (CBK/PG/05) on performance of commercial banks in Kenya. The study used descriptive research design because the study intended to find data about the existing effect of the CBK guidelines towards the performance of commercial banks. The target population was all the commercial banks in Kenya. Questionnaires that were conducted on a face to face basis were used in form of primary data collection. The statistics that was collected was obtained from four major departments in the banking industry which were; the finance department; credit department, debt recovery and risk & compliance department from 43 banks. The responses were then analysed to understand the results. The results gathered were cleaned; coded and statistical outputs generated using SPSS. The data mainly used descriptive analysis and inferential statistics to analyze the information. The study found and concluded that performance of commercial banks is highly affected by Corporate governance, Capital requirement, Credit risk Management, Liquidity Management. The study recommended that banks should try and be as transparent as they can so as to avoid penalties from the CBK and also study recommends further study to be conducted on the new interest rate capping regulations that the Central Bank published.

Key words: Prudential guidelines, corporate governance, Capital requirement, Credit risk Management and Liquidity Management

1. INTRODUCTION

All financial institutions are governed by the prudential guidelines in order to uphold a steady and competent banking structure. These guidelines are normally agreed upon by the Central Bank and Kenya Bankers association. An MPC meeting is normally held in order to look at the gaps that the economy and the banking sector has. These prudential guidelines are issued under the Banking Act unit 33(4). These guidelines cover all the banking activities done by financial institutions. (Central Bank of Kenya 2013). These guidelines improve transparency amongst customers and Banks. These regulations are designed to safeguard the operation of financial institutions. It is important for supervisory activities to maintain mechanism over consistent practice of these financial organizations. (Financial Stability Oversight Annual Report, 2003). The main reason to why these guidelines were implemented is because it is important to the economy to warrant their continuous existence that numerous actions have been taken to protect these organizations from fiscal volatility. If these guidelines are not followed accordingly this can cause great damages on the economy and also to the banking sector. Examples of such scenarios are bank of Dubai, Imperial Bank Kenya and Chase Bank of Kenya these incidents have made the banking sector very weak. Before these prudential guidelines were put into place more than 130 countries experienced banking problems. (Barth, J., Caprio, G., Levine, R., 2001).

The Prudential Guideline has drawn to attention the level of disclosure of material information in corporate reports as published by commercial banks. Reports from banks would be subjected to

more scrutiny owing to the state of health of some banks arising from the management of their risk assets portfolio (Macit, 2011). The prudential guidelines assist in ensuring the ability to repay loans through the utilization of prudent credit management (Odingbe, 2012) practice. These guidelines specify actions the banks should take to ensure they fully provide for their non-performing assets (Oladele, 2012). The Basel committee is an international committee that Kenya is not a member of, however the CBK try as much as possible to adopt the certain rules and regulations that the committee have that can affect as both positively and negatively so as to improve the system on an international level. Kenya has continued to make effort in ensuring that there is sound banking systems as they continue to look into gaps and prove more regulations not only to protect the banking system but also the stakeholders. The more the CBK improves and ensures that there is sound and strength in the banking system the more the economy will grow and the government will be able to achieve the goals under Vision 2030 to be an international financial Centre. (Martin, Colin & Samuel, 2002).

Commercial banks target is to make profit and ensure sound and efficient performance across the region, hence the study looked at the main guidelines that lead to the profitability of commercial banks and guidelines which are based on the CAMEL framework, these guidelines are; Capital Adequacy, Corporate Governance, Credit Risk and Liquidity Management. CAMEL is extensively used in assessing the banking performance.

2 Statement of the Problem

In recent decades, many countries have experienced banking problems requiring major reforms of the banking systems. The problems are largely due to domestic causes, such as weak banking supervision and inadequate capital. A key part of bank regulation is to make sure that firms operating in the industry are prudently managed (Berg, 2010) Thus, examining effects of Central bank regulatory requirements in bank financial performance in countries is a critical area of inquiry.

Without sound measures of banking policies across countries and over time, researchers are constrained in assessing which policies work best to promote well-functioning banking systems and in proposing socially beneficial reforms to banking policies in need of improvement. This helps in explaining why the study of effect of Central Bank regulatory requirements in bank financial performance in

Kenya was needed. Various studies carried out on bank regulations across the globe have focused to mitigate the effects of economic crises and lead the stability of the banking system. Naceur and Kandil, (2009) studying the effects of capital regulations on the stability and performance of banks in Egypt for the period 1989-2004 in Egypt.

Despite introduction of CBK prudential regulations 2006 governing commercial banks in Kenya, there are very few systematic studies that critically assess how regulations have affected the financial performance of commercial banks. These studies include: The banking sector regulatory framework in Kenya: Its adequacy in reducing bank failure Obiero, (2002). Financial regulatory structure reform in Kenya and the perception of financial intermediaries in Kenya and Njeule (2013) studied the effects of Central Bank of Kenya Prudential Regulations on financial performance of Commercial Banks in Kenya.

CBK 2006 regulation spelt out the guidelines and regulations to ensure that there is prudential management in the banking industry. Some of these guidelines relate to licensing of new institutions, corporate governance, capital adequacy requirements, liquidity management, risk classification and asset provisioning, foreign exchange exposure limits, publication of financial statements among others. Njeule (2013) study focused on CBK/PG/2 to CBK/PG/6(capital adequacy, liquidity management, risk classification of assets and provisioning, foreign exchange risk exposure and corporate governance) the study also analyzed one of the measures of performance referred to as the ROA. The study concentrated on CBK regulatory requirement two to five (corporate governance, capital adequacy, risk management asset and liquidity management) out of 22 in order to establish the effects of central bank regulatory requirements on commercial bank financial performance (ROA and ROE) in Kenya. The reason for the study to concentrate on this central bank regulatory requirements is that they are based on the CAMEL framework. CAMEL is widely used for evaluating bank performance. The Central Bank of Kenya also uses the same to evaluate the performance of commercial banks in Kenya. Though some alternative bank performance evaluation models have been proposed, the CAMEL framework is the most widely used model and is recommended by Basel Committee on Bank Supervision and IMF also it. In all the studies cited, it was evident that the findings were conflicting with studies from different regions providing different conclusions. This study therefore sought to investigate the effects' of central bank prudential guidelines on performance

of commercial banks in Kenya hence the research gap that the current study seek to fill. This study was built on the premise that the passage of time and the numerous and significant changes in the commercial banks operating environment have led to different operating environment after the central bank prudential guidelines.

3 Purpose of the Study

The main purpose of the study is to clearly understand the selected prudential guidelines set by the CBK and understand how they affect the performance of Commercial Banks. The study will mainly focus on four prudential guidelines which are based on the CAMEL framework

4 Objectives of the study

- i. To find out the effects corporate governance (CBK/PG/02) on financial performance of commercial banks' in Kenya
- ii. To establish the effects capital requirement (CBK/PG/03) on financial performance of commercial banks' in Kenya.
- iii. To assess the effects credit risk management (CBK/PG/04) on financial performance of commercial banks' in Kenya.
- iv. To determine the effects liquidity management (CBK/PG/05) on financial performance of commercial banks in Kenya.

5 Research questions

- i. How does corporate governance (CBK/PG/02) affect the financial performance of commercial banks' in Kenya?
- ii. What is the impact of capital requirement (CBK/PG/03) on financial performance of commercial banks' in Kenya?
- iii. Does credit risk management (CBK/PG/04) affect the financial performance of commercial banks' in Kenya?
- iv. To what extent does liquidity management (CBK/PG/05) influence the financial performance of commercial banks in Kenya?

6. LITERATURE REVIEW

6.1 Agency Theory.

Corporate governance is based on the above theory, this is the association between the principle and the agent. This theory explains how they can be tapped for purposes of governing a corporation to realize its goals. The principle shareholders which are the owners of capital have no time in the day to day running of the organization hence they hand over the duties to run the organization to the agents who are the CEO and managers of the commercial banks, this theory separates ownership from control, and the attendant agency problem (Wambua, 2011).

According to the theory by Solomon & Solomon 2004, the relationship between a company and the stockholders is normally considered as corporate governance. This theory explains that the board and CEO of an organization are responsible not only to stockholders but are also responsible to any other party that can be affected in the long run decisions of the banking systems (Cater & Lorsch 2004; Leblac & Gillies, 2005). Ongore and Kusa (2013) cited that the more risk an organizations takes the greater the influence in has on the decisions that are made (Mohanty,S.K, 2008).

The model assumes that everyone has knowledge about the organization, that there is readily available information based on the banking industry. The theory states that all activities of the banking industry as on the open and any customer is able to get the information easily and in a more transparent way, this theory assumes that the board and the banking industry are providing customers with what they need and their needs are looked upon (Abdallah, H., & Valentine, B., 2009).

This theory covers the corporate governance (CBK/PG/02) prudential guideline. This theory mainly proves that when corporate governance is followed then this can increase the performance of banking in the country (Clarke, 2004). According to Johanson and Ostergen (2010) this theory supports that corporate governance plays a major role in the effects of profitability on commercial banks in Kenya, since this theory stresses on how shareholders needs should be made priority this means that if Commercial Banks make sure that their shareholders are satisfied then they will get more investors and this will also create customer loyalty which will in the long run increase the performance of commercial banks.

6.2 Portfolio Theory.

This theory has been used to look at the success of reducing risks since regulations were published.

This theory mainly focuses on the risk elements that banks face such as, credit risk, interest risk and market risks (Marfrabe 2007). Credit risk still remains one of the biggest risks that commercial banks face, however the application for the portfolio model is still to credit risk has lagged (Margrabe, 2007). Aikaeli, (2008) states that corporate governance is one of the major guidelines that can affect the performance of commercial banks in Kenya.

Credit risk concentration has a great impact on the performance of the banks. As a result, a number of banks are concentrating on quantitative methods to credit risk reduction. This theory explains that banks are trying to make appropriate measures in developing tools that can measure credit risk in a portfolio situation. Commercial banks have now started using credit products to transfer risk professionally while protecting their customer relationships. Portfolio quality ratios and productivity indicators have been adapted (Kairu, 2009). The combination of these developments has massively fasten the progress in managing credit risk. This method involves understanding the quality of credit exposures, spreading out credit risk assessment, and combining the results of this analysis to identify a portfolio's probable losses. This theory teaches the approach of asset by asset approach, this is where banks tend to deal in bulk investments so as to reduce the credit risk, for example banks tend to do interbank deals to cover the customer deals so as to reduce the credit risk in the banks. This approach shows that the more it is important for banks to diversify the risks that they are exposed to. This theory also explains that it is important that banks are regulated to ensure safety and soundness of the commercial banks. This theory puts banks in a position to meet its liabilities without difficulties. (Mason and Roger, 1998). Companies increasingly attempt to address the inability of the asset-by-asset approach to measure unexpected losses sufficiently by pursuing a portfolio approach. One weakness with the asset-by-asset approach is that it has difficulty identifying and measuring concentration. Concentration risk refers to additional portfolio risk resulting from increased exposure to credit extension, or to a group of correlated creditors (Richardson, 2002). This theory supports that credit risk management plays a major role in the effects of profitability on commercial banks in Kenya, since this theory stresses on how banks can diversify and to asset by asset approach so as to reduce the level of risk in the banks. Since this theory stresses on measures of reducing or eliminating risk it is important that commercial banks follow the CBK guidelines so as to increase

the profitability of the bank and also reduce the banks level of credit risk.

6.3 Theory of Liquidity and Regulation of Financial Intermediation

Financial intermediaries establish a regulated part of the economy. In microeconomic theory there is an ongoing argument on the regulatory factors of banks and other financial institutions. Economy theory emphasizes that the functioning of the banking system is crucial to economic performance (Gurley and Shaw (1955).

Allen and Gale (2004) then argues that in the absence of risk there is no regulation that can improve upon the market stability. In contrast to the literature, Farhi et al, (2009) suggested that it should be regulated that a liquidity requirement on the minimal (liquidity cap) or the maximal (liquidity cap) amount of liquidity held for a short asset for an intermediary. Holmstrom and Tirole (1998) and Allen and Gale (2004) concluded that the government has a duty in regulating liquidity only if there are aggregate stock. This model underlines the practical suggestions for regulation of commercial banks. All commercial banks depend on the primary nature of the customers and stakeholders whom they serve experience. It is important for all banks to have a CRR ration this is a government regulation that guidelines then on how liquid they are and that they should not be below 5.30% of their core capital. The prudential guidelines therefore assist banks in knowing the minimum and maximum they should be holding. These guidelines are very beneficial since they help banks manage their inflow and outflow of cash. This theory covers the liquidity management regulation by the CBK. The theory bring about the specific objective of the study on the effects of liquidity management on the performance of banks.

6.4 Liquidity Preference Theory

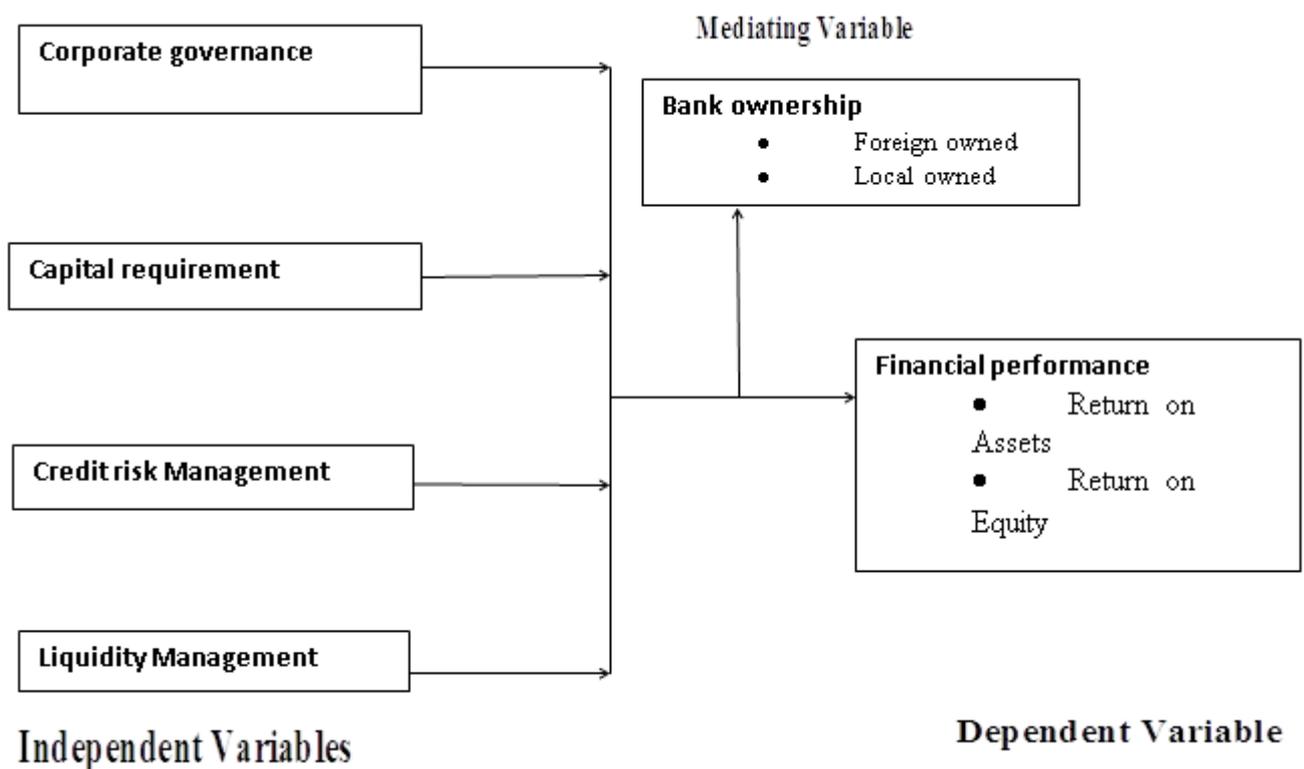
The third theory that guided the study was liquidity preference theory proposed by United Kingdom economist John Maynard Keynes. Keynes observed that all factors held constant, people prefer to hold cash (liquidity) rather than any other form of assets and they will demand a premium for investing in illiquid assets such as bonds, stocks and real estates. The theory continues to contend that the compensation demanded for parting with liquidity increases as the period of getting liquidity back increases. Liquidity preference theory continue to dominate the central concepts in economic and finance in its application on the theory of demand for money. With regards to Keynes theory, Central Banks set the rate of interest in order to control the

price of assets through the demand for money. On emphasis on why people will at all times prefer holding cash, The economist explained these to the existence of three motives: the motive to keep cash for daily transactional need, the motive to keep cash for precautionary tendencies and finally the speculative motive so as to take advantage of opportunities (Bibow, 1995).

The analogy of Keynes theory is imperative on the assets and liabilities functions of a commercial bank. The theory explains why banks will undertake to compensate for liabilities and provides essence of why banks will seek compensation for their assets. This compensation describes the interest rate factor that is a risk factor affecting credit risk in commercial banks. Therefore, banks will charge higher interest rates where possibility of default is higher hence liquidity preference theory. The above theory covers the second objective of the study on the effects of capital requirement on financial performance of commercial banks in Kenya.

6.5 Conceptual Framework

The conceptual framework below shows the relationship between the dependent and independent variables. The dependent variable in this study is financial performance, which is represented by the return on asset (ROA) and return on equity (ROE) which are proxy indicators of banks' performance. The dependent variable (banks' performance) will be measured by ROA and ROE. The ROA are measures of performance in relation to investment while ROE indicates how well management is utilizing the resources of the shareholders and that the ratio of net profits to owners' equity reflects the extent to which management has achieved proper utilization of shareholders resources (Pandey, 2006). The conceptual framework helps the researcher to see the proposed relationship between the variables easily and quickly



7.0 RESEARCH METHODOLOGY

7.1 Research Design

In this section of the project it looks at the depiction of the techniques and methodologies that were used in doing this study. This chapter entails the research design, population, sampling, methods

of collecting information, instrumentation and data analysis.

7.2 Target Population

According to the Central Bank of Kenya, there were 44 licensed banks in Kenya as at 31st

December 2015. The survey targets all the 43 commercial banks in Kenya.

Table 1: Target population

Bank Category	No. of Banks	No. of bank executives	Sample size
Foreign banks	31	4	124
Local banks	12	4	48
Total	43	4	172

Source: CBK, 2016.

7.4 Methods of data Collection and Instrumentation

Questionnaires were used in collecting primary data which was done on a face to face basis as well as through email and which allow the respondent to clarify and information that was not clear. The information was collected from the finance; credit; debt recovery and risk & compliance departments from the 43 banks. Questionnaires forms were divided into six segments, the first segment comprised of personal information of the bank, section two covered Bank performance, section three covered questions on Corporate Governance; section four covered questions on Capital Requirement; section five covered questions on Credit Risk Management and section six covered questions on Liquidity Management.

The questionnaires were given to bank executives located in Nairobi. Research assistants were engaged to mainly ensure that all the information is gotten on time and filled accordingly. The researcher first started with the customer care departments. After the approval of the proposal by the University, a meeting was held between the researcher and research assistants, who were be engaged to undertake the data collection. A training session was also held between the research assistants and the researcher to go through the questionnaire in order to clarify any question that was not clear to them.

7.5 Methods of Data Analysis and Reporting

After all the information was collected the researcher looked at all the questionnaires and analysed them to ensure that all the relevant fields were filled appropriately and there were not mistakes in any information gathered. The information was completed and the researcher ensured that there was consistency in the information gathered. A content scrutiny and descriptive analysis was used. The analysis was used to review the respondents' answers about the study variables. The information was then coded to the easily categorise the data. Inferential and descriptive information was used mainly to

summarize the information. Information collected was then put into tables, charts and graphs to present the information collected .

Regression Analysis model- All the four variables were analyzed to determine their importance of each variable with respect to establishing good performance in the bank by a multi-regression model. The regression model was:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

- y = performance
- β_0 = Persistent Term
- β_1 = Beta coefficients
- X_1 = Corporate Governance
- X_2 = Capital Requirement
- X_3 = Credit Risk Management
- X_4 = Liquidity Management
- ϵ = Error

7.6 Research Ethics

To ensure acceptability of this study, I sought permission from Kenya Methodist University and from the respective Commercial Banks to access and use the relevant information in carrying out the study. This was done by ensuring that appropriate and relevant documents were submitted to the relevant authorities within Commercial Banks before data was collected. This ensured that the researcher was able to collect data that was true and collected it with ease without any challenges faced like being given minimum information due to security and control issues.

8.0 DATA ANALYSIS, PRESENTATION AND INTERPRETATION

8.1 Bank Performance

The employees were asked to place their views based on performance of the bank, this was done on a five Likert scale ranging from one (strongly disagree) to five (strongly agree). Variation from the mean was indicated using standard variation.

When the data point is close to the mean this means there is a low standard deviation, while when the data spreads out on a large value the standard

deviation is high. The study findings are tabulated in table 4.6

Table 2: Bank Performance

	Mean	Std. Deviation
Return on equity on the banks performance has improved in the last 3 years.	4.67	.567
Return on assets on the banks performance has improved in the last 3 years.	4.71	.458
Return on equity is greater in banks as compared to industry	4.8	0.399
The firm has high return on assets compared to industry average	4.56	.456

Table 4.8 shows that, the participants agreed that banks had a good turnover in the last three years (mean = 4.67), the survey also suggests that the bank had a good return of assets in the last three years (mean = 4.71). From the results of the research also shows banks return more equally than the 4.8-sector sector and finally the company returned to equity than the industry level (average = 4.56)

connection of the independent variables in the Performance of Commercial Banks in Kenya. Correlation and regression analysis was used in all the research criteria's.

This study found out the influence of each study variables (corporate governance, capital requirements, credit management and liquidity management) on the performance of banks. The tests were carried out using simple linear regression analysis. The tests were done at 5% significance level ($\alpha = 0.05$). The evaluation focused on the objectives of the study.

8.3 Correlations Analysis

The study wanted to find out if there was a relationship among the variables under study. Variables which are under the independent variable were correlated against the dependent variable. Correlation analysis assists the researcher to establish the nature of the relationship in order to make a valid conclusion and recommendation about the variables. Normally a correlation coefficient lies between +1 and -1. A positive correlation means the two items under test affect each other in a way that when one improves the other also improves and a negative correlation means that when one factor increases the other reduces. The test of significance in the relationship is done at either a significant value of 5% or 1%. The findings of the research were presented in table 4.9

8.2 Inferential Statistics

General linear Regression model and correlation analysis was adopted to understand the impact and

Table 3: Pearson's Correlations

		Bank performance	Corporate Governance	Capital requirement	Liquidity management	Credit risk management
Bank performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Corporate Governance	Pearson Correlation	.895**	1			
	Sig. (2-tailed)	0.000				
Capital requirement	Pearson Correlation	.909**	.872**	1		
	Sig. (2-tailed)	0.000	.000			
Liquidity management	Pearson Correlation	.717**	.709**	.606**	1	
	Sig. (2-tailed)					

	Sig. (2-tailed)	0.000	.000	.000		
Credit risk management	Pearson Correlation	.882	.829**	.837	.527**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

** . Level 0.01 indicates that the correlation is significant (2-tailed).

* .05 level shows that there is a significant in the correlation level (2-tailed).

From table 4.9 it is indicated that there is a strong positive correlation of 0.895 which is very significant at a value of 0.00 concerning corporate governance and performance of the bank. This indicates improving on corporate governance is also able to improve on bank performance.

There is a positive correlation of 0.909 among capital requirements and performance of the bank. In the relationship between Liquidity management and Bank performance the study established a strong positive correlation of 0.717 that was very significant (0.000) at 1% level of importance. It is also indicates a positive correlation of .882 was found which is significant at a value of 0.00 between performance of the bank and credit management. This indicates that credit management is also able to improve on the bank performance. From the study it's evident that all prudential guidelines under the study had a positive correlation with the bank performance.

8.4 Regression analysis

The study sought to establish the factors influencing bank performance Kenya. The factors

investigated were: corporate governance, liquidity management, credit risk management and capital requirement. Each variable was regressed against the dependent variable which is performance and it was found that a multiple regression model was best to determine the effects of the variables since they were all affecting the performance of the bank.

8.5 Corporate Governance

Employees were asked to specify how Corporate Governance affects performance of the bank. The results were later put on a five Likert scale ranging from one (strongly disagree) to five (strongly agree). The below linear regression model was used in finding how corporate governance affected the profitability of banks.

$$Y = \beta_0 + \beta_1 X_1$$

Whereby;

Y represent the performance of the bank

X₁ corporate governance

β₀ is the model's constant

β₁ is the regression coefficients

ℓ is the model's significance from f-significance results obtained from analysis of variance (ANOVA).

Table 4: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.613	1	24.613	441.343	0.00 ^b
	Residual	6.135	110	0.056		
	Total	30.748	111			

ANOVA statistics shown in table 4.10 were used to submit the importance of the correction model. The value of the F value of p = 0.000 was introduced to show the significance of the model.

Table 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.904	0.255		-4.287	.000
Corporate governance	1.355	0.064	0.895	21.008	.000

a. Performance of Bank: Dependent Variable

Below is the regression result was found:

$$Y = -1.904 + 1.355X_1$$

When all other factors are nil, the performance of the bank will be at -.904 while having other variables still, an element growth in corporate governance would lead to 1.355 (p=.000) growth in bank performance.

8.6 Capital Requirements

A simple linear regression model was used to find out the effect of capital requirements on the bank performance. This was put in Likert scale that had a ranking of strongly agreed and strongly disagreed.

The study established that capital requirements affect the bank performance in Kenya. The simple linear regression model was as follows:

$$Y = \beta_0 + \beta_2 X_2$$

Whereby;

Y represent the bank performance

X₂ capital requirements

β₀ is a constant figure

β₂ is the regression coefficients

ℓ is the significance of the model from f-significance obtained from analysis of variance (ANOVA).

Table 6: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.381	1	25.381	520.191	0.00 ^b
	Residual	5.367	110	0.049		
	Total	30.748	111			

ANOVA analysis is tabulated above in Table 4.12 which presented the significance of the model. The value p=0.000 of F-significance generated proving that the model is rather important.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.584	.213		-2.744	.000
Corporate governance	1.123	0.49	0.909	22.808	.000

a. Performance of the Bank: Dependent Variable
 Regression outcome as below:

$$Y = -.584 + 1.123X_1$$

Where the elements are nil performance was at .584 while having the other variables still, an element growth in Capital requirements would increase to 1.123 where p=0.000 growth in performance.

8.7 Credit risk Management

The employees were asked to what level in the Likert scale do they agree or disagree that credit

$$Y = \beta_0 + \beta_3 X_3$$

Whereby;

Y represents the performance of banks

X₂ credit risk management

β₀ is the constant model

β₂ is the regression coefficients

ℓ is the significance of the model from f-significance results found from analysis of variance (ANOVA).

management affects the performance of banks. Linear regression was conducted in identifying the effects of the credit management.

This found out that credit risk management affect the bank performance in Kenya. The simple linear regression was as follows:

Table 8: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.904	1	23.904	384.24	0.000 ^b
	Residual	6.843	110	0.62		
	Total	30.748	111			

The statistics of ANOVA shown in the above table 4.14 was used to show the importance of the model. F-significance value of $p = 0.000$ was calculated proving that the model is important.

Table 9: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.627	0.186		3.372	.001
Corporate governance	.826	0.042	0.882	19.602	.000

a. Bank performance: Dependent Variable

The following regression result was obtained:

$$Y = 0.627 + 0.826X_1$$

When other elements are nil, the performance of the bank performance will be 0.627 and when having other factors still, a unit growth in credit management would increase lead to 0.826 ($p=.000$) in bank performance.

Results were put on Likert scale where the employees were asked to justify whether liquidity management has an impact on banks performance. Linear regression was done to find the effect of liquidity management on bank performance.

8.9 Liquidity Management

This study sought to establish if liquidity management affect the bank performance in Kenya. The simple linear regression model was as follows:

$$Y = \beta_0 + \beta_4 X_4$$

Whereby;

Y is bank performance

X_2 liquidity management

β_0 is the constant element

β_2 is regression coefficients

ℓ is the significance of the model from f-significance results gotten from analysis of variance (ANOVA).

Table 10 : Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.814	1	15.814	116.484	0.00 ^b
	Residual	14.934	110	0.136		
	Total	30.748	111			

Presented in table 4.16 is the ANOVA analysis which was used to present the importance of the model. The model is significant when the F-significance value of $p = 0.000$.

Table 11: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.987	0.486		-2.031	.045
Liquidity	1.193	.111	0.717	10.793	.000

a. Performance of the Bank: Dependent Variable
 Regression outcome are tabulated below;

$$Y = -.987 + 1.193X_1$$

When all other elements are nil the performance of the bank will be at -.987 while other factors are still. An element increase in Liquidity Management leads to 1.193 which is $p=.000$ growth in performance of the bank.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \ell$$

Whereby;

Y represent the performance of the bank

X_1 is corporate governance

X_2 is capital requirement

X_3 is Credit Management

X_4 is Liquidity Management

B_0 is the constant model

$\beta_1 - \beta_4$ are the regression coefficients

ℓ is the significance of the model from f-significance results gotten from analysis of variance (ANOVA).

8.10 Multiple Regression Analysis

The study sought to establish the factors influencing bank performance Kenya. The factors investigated were: corporate governance, liquidity management, credit risk management and capital requirement. The regression model was:

Table 12: Model's Goodness of Fit Statistics

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.957 ^a	.917	.914	.15476	0.774

a. Predictors: (Constant), corporate governance, liquidity management, credit risk management and capital requirement

There is a good linear relationship between dependent and independent variables this is tabulated in the above table 4.18. This is expressed by a correlation (R) coefficient of 0.957. A presentation of a strong relationship between the independent and dependent variable was

determined by the coefficient which was measured by the adjusted R-square given a value of .914. This explains that the model covers 91.4% of the total research while a small percentage of 8.6% remains uncovered by the regression model.

Table 13: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.187	4	7.046	294.204	.000 ^b
	Residual	2.563	107	.024		
	Total	30.748	111			

a. Predictors: (Constant), corporate governance, liquidity management, credit risk management and capital requirement

b. Performance of the Bank: Dependent Variable

The significance of the model was presented using the ANOVA statistics shown in Table 4.19. A profitability of 0.00% was gotten from the F-significance value of $p = 0.000$ which presented a incorrect data. Therefore, the model is significant.

Table 14: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.511	.209		-7.223	.000
Liquidity	.364	.067	.219	5.460	.000
Corporate Governance	.177	.106	.117	1.677	.098
Capital requirement	.469	.078	.380	6.049	.000
Credit risk management	.330	.052	.352	6.338	.000

a. Performance of the bank: Dependent Variable

The result from the regression model is shown below:

$$Y = -1.511 + 0.364X_1 + 0.177X_2 + 0.469X_3 + 0.330X_4$$

The above model suggests that when other factors (corporate governance, liquidity management, credit risk management and capital requirement) are at nil, performance of the bank will be at -1.511. Where other aspects are constant, a component increase in liquidity management would lead to 0.364 ($p=.000$) increase in performance. Whereby, when other elements remain constant a component increase in corporate governance would lead to a 0.177 increase in Bank performance.

Table 4.10 (analysis of ANOVA) shows that when all aspects are same, an increase in capital requirement would result to a 0.469 increase in performance of bank. The results, further, shows that an increase in credit risk management can result to a 0.330 increase in performance.

9 Summary

The study found out that the Corporate governance, Capital requirement, Credit risk Management, Liquidity Management had immense effects on the Performance of Commercial Banks in Kenya.

This study sought to establish the influence of the study variables (corporate governance, capital requirements, credit risk management and liquidity management) on Bank performance. The simple linear regression test carried out established that all the study variables had an effect on the bank performance. The tests were done at 5% significance level ($\alpha = 0.05$). On the other hand correlation analysis was carried out between the

variables of study and the dependent variable. The test shown that there is positive correlation between corporate governance and Bank performance which indicates that by improving on corporate governance is also able to improve on bank performance. Also the study shown that there is a positive correlation between capital requirements and Bank performance.

The study further suggests that commercial banks should do intense training on the prudential guidelines to empower their employees and ensure that all the employees clearly understand all these guidelines. This will increase the awareness of the employees and will make it easier for commercial banks to comply with all the guidelines and improve their performance.

10 Conclusions

The study concludes that Corporate governance, Capital requirement, Credit risk Management, Liquidity Management had immense effects on the Performance of Commercial Banks in Kenya. The study further concludes that the bank had clear lists of the share owned by members of the BoD; In addition the study concludes that the banks regularly held self-assessment of corporate governance. Further the study found that Capital requirement was one of effects of CBK regulatory requirement on financial performance, Capital requirement structure of banks was highly regulated, high capital requirements in banks led to low profits. Also the study concludes that Credit

risk Management was one of effects of CBK regulatory requirement on financial performance. Profitability of the banks was influenced by bank risk management. Further the study found that Liquidity management was one of effects of CBK regulatory requirement on financial performance and that was important for CBK to ensure full compliance with minimum liquidity requirement.

11 Recommendations

The study recommends that commercial banks should do intense training on the prudential guidelines to empower their employees and ensure that all the employees clearly understand all these guidelines. This will increase the awareness of the employees and will make it easier for commercial banks to comply with all the guidelines and improve their performance. It is important that commercial banks understand the regulations that are imposed on them by the CBK not only because there are consequences if commercial banks do not comply but also to improve their work ethics and performance. There are still gaps after having completed the study hence, the researcher wishes to make the following recommendation in line with the study, since the study is wide there is need to do further study on the new banking acts that the CBK have recently amended on September 14th 2016. Since the commercial banks have just started implementing the latter, it is important to understand and evaluate how this will affect the performance of commercial banks, will commercial banks reduce in lending? How will they ensure that the budget of their profits are met? And to what extent has the CBR affected their financial performance.

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