



INFLUENCE OF CAPITAL ADEQUACY REQUIREMENT ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED AT NAIROBI SECURITIES EXCHANGE

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ABSTRACT

In recent decades; there has been unprecedented number of disruptive banking crises. Financial performance of commercial banks have been challenged over time and this has seen some commercial banks placed under receivership. Between 2019 to 2020, return on assets and return on equity has decreased making financial performance to decline. The main objective was to determine the influence of Capital adequacy requirement on financial Performance of Commercial Banks listed at Nairobi Securities Exchange. The study adopted a descriptive survey research on a population of 12 commercial banks listed at Nairobi Securities Exchange Kenya. This study used secondary data from published Central Bank of Kenya financial reports. The study used stata software version 15 in data analysis. The study data was analyzed by both descriptive statistics and inferential statistics. Results were presented by use of tables. Panel data Pearson Correlation results capital adequacy requirement as $P=0.0268$ ($P<0.05$) hence significant. The study hence found that Capital adequacy requirement had positive and significant influence on financial performance of commercial banks listed on the Nairobi Securities Exchange. Therefore bank managers should invest in assets to improve capital base. The study concluded that Capital adequacy requirement was of value in the banking sector and policy guidelines to see them effective being vital. The study recommended that managers of listed commercial banks should find ways of minimizing non performing loans to make bank capital adequate. This study is of help to bank managers in addressing capital adequacy compliance requirement and financial performance of commercial banks.

Key words: Commercial banks, capital adequacy compliance requirement, Financial Performance

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INTRODUCTION

Compliance acknowledges the essence of adhering to set rules regarding a subject matter in this context adherence to bank set financial policies (Njoroge, 2016). Compliance asserts that they are benchmarks to ensure good actions and discipline within financial entities is realized. They are instituted under the capital zeal, asset zeal, management zeal and liquidity zeal. In the Kenyan context CBK is bestowed the duty of compliance reinforcement. In Costa-Rica the compliance ultimatums of 1998 to 2007 improved performance of respective banks (Lafuente, 2019). Competition among banks in the global arena has led to less attention on compliance issues especially in unite states (Robert, Hughes and Choon-Geol Moon, 2021). The CAMEL guided choice of Capital requirement. Studies (Ongore and Kusa (2019), Uzhegova (2020) have used CAMEL though on profiteering goal and not performances. This study used Capital requirement.

A study by Gudmundsson, Ngoka and Odongo (2019) examined capital compliance requirement influence on competitive ability of Kenyan commercial banks. The study found that core capital yielded instability hence capital requirements negatively and insignificantly impacted on performance geared through competition of banks. This study however had different findings indicating that core capital was specific hence possibility of difference in findings with the current study. It further addressed commercial banks in general and not listed ones hence current study focus on listed banks.

It is undisputed that there are 12 listed commercial banks at Nairobi Securities Exchange (CBK, 2021). The banks in Kenya have a stipulated compliance guide that incorporates the CAMEL approach on basis of liquidity, capital adequacy and asset quality. It also provides provisions for income and expenses (CBK, 2021). The spicing factor in compliance matters for this study is based on a series of bank failure on basis of CAMEL components non functionality, the limbo state of capital compliance,

asset compliance, managerial compliance and liquidity compliance (Macharia, 2016). This study therefore unmasked the influence of capital adequacy compliance requirements on Financial Performance of Commercial Banks listed at Nairobi Stock Exchange in Kenya.

Statement of the Problem

In the latest five years, the banking sector has experienced financial shocks associated with compliance indicators (CBK, 2020). Recently Kenyan Commercial Bank salvaged National bank of Kenya on acquisition platform due to serious liquidity non-compliance issues (CBK, 2019). The ROA and ROE has dropped simultaneously in 2019, 2020 and 2021 in a raw thus 29% to 24% to 21% an indicator of financial challenges pegged to compliance (Bank Supervision Annual Report, 2020). Could compliance be responsible for the trend in dilemma? Some commercial banks in Kenya are facing non-compliance to regulations for instance Dubai bank, Imperial bank and Chase bank were liquidated for inefficiencies on capital requirement, liquidity regulations and asset quality regulations. Furthermore, despite introduction of CBK prudential regulations Nairobi Securities exchange faces uphill task wooing back and retaining investors based on performance of firms (NSE, 2021). Studies on Bank regulations such as by Adnan (2016) have concentrated on financial performance excluding compliance requirements. Muiruri (2015) carried a research on CBK regulatory requirements on Kenyan commercial financial performance and found compliance requirements positively affected performance, the study failed to use management quality and firm size. This study therefore established the influence of capital adequacy compliance requirements on financial performance of Nairobi Securities Exchange listed Commercial Banks.

Objectives of the Study

The objective of this study was to determine the influence of Capital adequacy requirement on financial performance of Nairobi Securities

Exchange listed Commercial Banks. The study was guided by the following research hypothesis;

- *H₀₁*: Capital adequacy requirement has no significant influence on financial performance of Nairobi Securities Exchange listed Commercial Banks.

LITERATURE REVIEW

Theoretical Literature Review

The Buffer Theory

This theory was opined by Calem and Rob (1996). It insinuates that banks should avoid a risk of getting out of funds due to capital requirement compliance failure. On explaining the capital buffer concept it refers to amount exceeding the minimum threshold required of 1 Billion by the central bank of Kenya requirements for Kenyan context. Therefore the capital adequacy requirement ratio forms baseline for argument on buffer theory. To ensure cash is available among banks it is prudent for bank management to set a standard minimum amount upon which the bank should ensure the cash does not go below the set standards. This will generate discipline of ensuring liquidity challenges wont arise. Holding a buffer or set standards acts as prudence concept to ensure performance of financial entities is achieved.

Banks that fail to practice the buffer safety approach find themselves hitting the non compliance aspects as they first start by not mentioning their own policies. The central bank of Kenya and central banks of other countries face the challenge of educating banks to incorporate buffers so as to avoid capital risks. It is in the norm of CBK that banks should have a minimum of 1 billion capitalizations and therefore the buffer should go above it (Tochukwu, 2016).

The shock management shows the quality of management through address of expenses and total assets (Ochei, 2019). Buffer theory has a direct relationship on capital adequacy (buffer), management quality by increasing more cash to avoid risk, liquidity through addition of more funds,

asset quality that comes with pumping more cash and compliance of commercial banks. It is therefore the main theory. The main theory value is based on adequacy regulation that has a good impact on performance (Kariuki & Wafula, 2016). Through maintenance of the right capital base and maintaining required buffer performance is attained in banks.

Conceptual Review

Capital requirement

Capital adequacy requirement refers to the ratio of equity to total asset as provided in bank reports. In making capital adequate banks enjoy great benefits of liquidity. Adequacy of funds propels the institutions functionality, apart from the threshold given by central bank of Kenya buffers are advised as the best restrictive approaches (Mule, Mukras & Nzioka, 2015).

Commercial Banks Financial Performance

Financial Performance refers computation of return on assets as provided in bank reports. Central bank of Kenya ascertains performance based on financial context. Manyuanda (2020) defines financial performance as the general cash flow well being over certain period. A business organization can easily close down its operations if it does not have a sound financial performance (Mombo, 2019). It is of great importance to any organization and should be evaluated frequently since it helps the management in planning smoothly for their cash flow. Future investment helps through the set systems to assess and ensure availability of liquidity and measure the level of profitability for decision making. This study will measure financial performance by use of return on equity.

Empirical Review

Kariuki and Wafula (2016) ascertained the impact of adequate capital on performance of SACCOs that are deposit taking for 2020 financial years. The study assessed one hundred and three deposit taking saving and credit cooperative societies. In establishing financial performance, ROA, ROE and NIM were used. Adequacy of capital got weight

through assessment of core capital verses total assets in ratio generation. When capital increases financial performance improves. The study hence found a positive significant influence between adequate capital compliance requirement and performance of SACCOs. This study failed to address other compliance impetus based on asset compliance, management efficient and liquidity. It further addressed SACCOs and not banks hence current study focus on banks. The past study failed to use bank size moderating influence which was used for the current study.

A study by Karanja and Nasieku (2016) investigated the capital requirement influence on commercial banks performance in Kenya. The study examined risk weighted capital at broad and found that it had a negative influence on performance of banks in Kenya. This study however had different findings indicating that weighted capital was specific hence possibility of difference in findings with the current study. This study further failed to address other compliance impetus based on asset compliance, management efficient and liquidity. It further addressed commercial banks in general and not listed ones hence current study focus on listed banks. The past study failed to use bank size moderating influence which was used for the current study.

A study by Gudmundsson, Ngoka and Odongo (2019) examined capital compliance requirement influence on competitive ability of Kenyan commercial banks. The study found that core capital yielded instability hence capital requirements negatively and insignificantly impacted on performance geared through competition of banks. This study however had different findings indicating that core capital was specific hence possibility of difference in findings with the current study. This study further failed to address other compliance impetus based on asset compliance, management efficient and liquidity. It further addressed commercial banks in general and not listed ones hence current study focus on listed

banks. The past study failed to use bank size moderating influence which was used for the current study.

Odunga (2019) cross examined liquidity and adequate capital influence on Kenyan commercial banks. Liquidity was emphasized on customer deposits as adequacy on buffer levels. The study found that both liquidity and adequacy of capital had positive and significant influence on performance of banks. This study further failed to address other compliance impetus based on asset compliance, management efficient and liquidity. It further addressed commercial banks in general and not listed ones hence current study focus on listed banks. The past study failed to use bank size moderating influence which was used for the current study.

METHODOLOGY

A causal research design was adopted. This design is of use for regression and Correlation purposes. This design was appropriate for exploring the Correlation arising from the dependent, independent and moderating variables. The study populace was 12 listed commercial Banks at NSE of which all were used through census, published financial statements for listed banks was the unit of analysis. The regression equation was as shown below;

Without moderating variable;

Econometric equation.

Without a moderator

$$Y = \alpha + \beta_1 X_1 t + \epsilon$$

Where, Y = Financial Performance

α = Constant

β_1 = the slope.

X_1 = Capital adequacy requirement

ϵ = error term

RESULTS AND DISCUSSION

Descriptive Statistics and Normality

This was ascertained through skweness, kurtosis and Jacque bera

Table 1: Descriptive Statistics Results

Variable	Mean	STD	Skewness	Kurtosis	Jarque Bera adj chi2(2)	Prob>chi2
LN:CAR:E_TA	.4552162	.0760183	1.434202	7.082647	712.5	0.1920
LN:FP_ROA	8.780326	1.212994	1.356902	2.792611	57.14	0.1700

LN is Natural Log, CAR-Capital Adequacy Ratio, ROA-Return on Asset

From Table 1, natural logarithm of Capital Adequacy had a mean of 0.4552162. The implication of the significantly positive ROA is that listed banks in Kenya are performing well. Normality is examined if Skewness and Kurtosis

figures are equal to zero. Log of Capital Adequacy was positively skewed. The implication of positive skewness of natural log of return on asset is that listed commercial banks reported increase in performance in the observed periods.

Correlation Matrix

Table 2: Correlation Matrix

VARIABLES	ROA	CAPADE
ROA	1.0000	
CAPADE	** -0.0987	1.0000
	0.0300	

Source: Field data (2022)

The results in Table 2 showed non multi-collinearity capital adequacy requirement as value were less than 0.9. It implies that there was no multi-

collinearity among independent variables. The relationship between capital adequacy requirement (-0.0987).

Hausman Test

Table 3: Hausman Test

Fixed effects regression	No of observ = 60
Group var: CODE	No of groups = 12
R-square:	Observation per group:
withn = 0.2506	minimum = 5
btn = 0.1198	average = 5.0
over = 0.0393	maximum = 5
	F(4,44) = 3.68
corrln(u _i , X _c) = -0.5628	Prob > F = 0.0114

ROA	Coeff.	Std. Error	t	P> t	[95% Conf.	Intervals]
CAPITALADEQUACY	.0270446	.0142827	1.89	0.065	-.0017402	.0558294
_cons	.448414	.1402611	3.20	0.003	.1657363	.7310917
sigm_u	.08777167					
sigm_e	.0294168					
rh	.89901665	(fraction of var)				

F test =0: F(11, 44) = 28.91 Prob > F = **0.0000**

Source: Field data (2022)

Results in the table 3 indicated a prob>chi2 value of 0.0000 which is less than critical P value at 0.05 level of significance which

implies that alternative hypothesis that a fixed influence model is the best was adopted. The study hence used a fixed influence regression model.

Regression Fixed Effects of Capital Adequacy on ROA

Table 4: Regression Fixed Influence of Capital Adequacy on ROA

. xtreg ROA CAPITAL ADEQUACY, fe						
Fixed-influences (withn) regression			No of observation	=	60	
Group var: CODE			Number of groups	=	12	
R-square:			Observ per group:			
within	=	0.0311	minimum	=	5	
between	=	0.0366	average	=	5.0	
overall	=	0.0097	maximum	=	5	
			F(1,47)	=	1.51	
corrln(u_i, Xc) = 0.0321			Prob > F	=	0.2253	
ROA	Coeff.	Std. Error	t value	P> t value	[95% Conf.	Intervals]
CAPITALADEQUACY	.0180526	.0146917	1.23	0.225	-.0115032	.0476084
_cons	.7098673	.0169367	41.91	0.000	.675795	.7439395
sigm_u	.07245001					
sigm_e	.03236305					
rh	.83365548 (fraction of var)					
F test =0: F(11, 47) = 25.03			Prob > F = 0.0000			

Source: Field data (2022)

The fixed influence showed that capital adequacy requirement gave 3.11% (R square value=0.0311) of the change in financial performance of commercial banks listed on the NSE. The goodness of fit F(1,47)= 1.51 with a p-value =0.000. The regression for capital adequacy requirement was 0.0180526 indicates an increase in capital adequacy requirement across time and commercial listed banks makes return on assets to increase by 0.0180526. Regression model is availed.

$$LNROA=0.7098673+0.0180526CAR$$

Hypothesis that was null was rejected as capital adequacy requirement had a significant influence on listed commercial banks performance. Therefore increase in capital adequacy requirement would results to decrease in financial performance of commercial banks listed on the NSE. This findings agrees with Kariuki and Wafula (2016) who found a positive significant influence between adequate capital compliance requirement and performance.

It also agrees with Odunga (2019) who found that liquidity had positive and significant influence on performance of banks. This disagreed with Karanja and Nasieku (2016) who found capital requirement to be of negative influence on performance of banks in Kenya. This study however had different findings indicating that weighted capital was specific hence possibility of difference in findings with the current study. It further disagrees with Gudmundsson, Ngoka and Odongo (2019) who found that core capital yielded instability hence capital requirements negatively and insignificantly impacted on performance geared through competition of banks. This study however had different findings indicating that core capital was specific hence possibility of difference in findings with the current study.

CONCLUSION AND RECOMMENDATIONS

In line with the Influence of Capital adequacy requirement on NSE listed commercial banks

financial performance. Capital adequacy requirement has a significant positive influence on NSE listed commercial banks financial performance.

It was found that that there was a significant positive influence of adequacy of capital on performance and therefore bank managers should invest in assets to improve capital base.

Suggestions for Further Research

A study on all commercial banks in Kenya is worth for further study since this focused on listed ones. Other variables associated with bank financial performance such as liquidity can be looked into for future studies. Further moderating variables should be involved in future studies. Similar study should be conducted in manufacturing, agricultural, SACCOS and macro-finance institutions.

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