BASEL ACCORD REQUIREMENTS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

The purpose of the study was to investigate the effect of Basel accord requirements on the financial performance of commercial banks in Kenya. The objectives of the study were to; determine the effect of capital on the financial performance of commercial banks in Kenya, to establish the moderating effect of market share on the relationship between Basel accord requirements and the financial performance of commercial banks in Kenya. The study was founded on asymmetry information theory, buffer theory of capital, and relative market power hypothesis. The study employed positivist research philosophy and causal research design. The target population for the study comprised all forty-three commercial banks operating in Kenya out of which thirty-eight were selected using a purposive sampling technique. The study found that capital had a positive significant effect on the financial performance of commercial banks in Kenya. Market share had a negative significant moderating effect on the relationship between Basel accord requirements and return on assets of commercial banks in Kenya. The conclusion of the study was that Basel accord requirements significantly explain the variation in the financial performance of commercial banks in Kenya. The study thus recommends that the central bank of Kenya should design banking policies for implementing Basel accord requirements and enhancing the financial performance of commercial banks in Kenya.

Keywords: Basel accord requirements, capital, financial performance, market share, commercial banks.

1.0 INTRODUCTION

Basel accord requirements are the banking regulations in regard to capital, supervisory review, market discipline, leverage, and liquidity (Demirguc-Kunt & Huizinga, 2014). There are three Basel accord requirements which include; Basel I, Basel II, and Basel III (Fapetu & Kolapo, 2015). In 1974, international cooperation on commercial banks was founded by the committee referred to as Basel Committee on Banking Supervision (BCBS), (Walter, 2016). BCBS aimed at enhancing the quality of commercial banks' supervision and financial performance, which later changed to monitoring and evaluating the quality of capital

adequacy and banking services. Basel accord requirements originated in 1979 following the collapse of the Bretton woods system that managed exchange rates that resulted from the financial market turmoil. Foreign banks, for instance, Bankhaus Herstatt's bank of Germany and Franklin National bank of New York closed their doors after incurring huge foreign exchange losses. This led to the creation of the accord Basel I (Demirguc-Kunt & Huizinga, 2014). Basel I clearly stipulates capital which would minimize the likelihood of borrowers of loans from commercial banks defaulting in repayment of either principal or interest amount or both (default risk). Basel I was later modified to incorporate market risks which are changes in the financial instruments market prices.

In 2004, the Basel committee due to the shortcomings in Basel I which was said to consider only default risk and ignore other types of risks, introduced Basel II which was more comprehensive in capital adequacy (Chinoda, Chingombe & Chawuruka, 2015). Basel II was set up in a triplicate of three pillars; pillar I dealt with minimum capital with new methods of capital measurement, market risks, and operational risks. Pillar II focused on the supervisory review through internal capital evaluation mechanisms. Pillar III focused on supporting market discipline through improved disclosure by banks for sufficient competition within the banking sector (Demirguc-Kunt & Huizinga, 2014). In an implementation survey by the central bank of Kenya in the year 2008, it was evident that the majority of the local associates of foreign banks were prepared to implement Basel II in the year 2008 while most of the local banks were ready to execute Basel II in the year 2010. The challenges identified in the survey report as hindering the implementation of Basel II include; a "talent war" as banks look for upscaling their employees, advancements, and renovations of existing information technology systems to meet the information requirements for Basel II (CBK, 2013).

Capital is the number of shareholder funds that a regulator directs banks to maintain as per the prudential guidelines (Chinoda, Chingombe & Chawuruka, 2015). In Basel, accord requirements capital is the main quantitative evaluation criterion for evaluating commercial banks' conditions for risk adjustments (Abdalla & Noor, 2014). Capital is assessed on attributes such as risk management incentives adopted by commercial banks. From the literature reviewed, it is evident that capital is an important factor that affects the performance of banks (Udom and Onyekachi (2018); Otwani, Namusonge, and Nambuswa (2017). Besides that, banks tend to hold more capital above the level required by the regulatory authority or increase their capital when it nears the required level for the fear to incur penalties imposed by regulatory authorities (Assfaw, 2018; Odonkor & Barmor, 2012). Assfaw (2018) noted that banks holding more capital tend to invest in risky portfolios.

Market share refers to a bank's deposits in relation to total bank industry deposits for a certain period (Genchev, 2012). Etale, Bingilar, and Ifurueze (2016) explained market share as a firm's sales relative to total sales in an industry for a certain period. According to Arif and Awwaliyah (2018) banks with large market shares satisfy their customers' needs more than firms with small market shares. Banks with high market share enjoy a competitive advantage against smaller banks whose market share is low (Genchev, 2012). Previous studies have measured market share using bank deposits to total deposits ratio, the proportion of loans & advances in an individual bank as compared to the banking industry, and total bank assets to total assets in the bank industry (Etale et al., 2016; Arif et al., 2018; Genchev, 2012). Birru (2019) carried a study on the elements of the insurance companies profitability

in Ethiopia using specific, industry, and macroeconomic variables. The effect of market share on profitability was insignificant. The study recommendation was that market share be tested as a moderating variable in future studies. Naylah and Cahyaningratri (2020) carried out a study on the effect of market share on the financial performance of commercial banks in Indonesia. The findings showed that market share had a positive and insignificant effect on financial performance. The study recommended that market share be included as a moderator variable instead of an explanatory variable. Thus, the current study tested the moderating effect of market share on the relationship between Basel accord requirements and financial performance of commercial banks in Kenya.

Commercial banks of different countries have been struggling to return to profitability after the 2008-2009 global financial crisis. For instance, European union banks (EUB) profitability remained lower than before the crisis time with an average return on equity (ROE) declining from 4.4% in 2015 to 3.5% in 2016 and from 6.1% in 2018 to 5.4% in 2019. The ROE seems to be very low since the cost of capital was about 10% for most EUB after the global financial crisis. Non-performing loans ratio (NPLR) was still high in some of EU member countries after the crisis. For example, Greece's NPLR in 2016 was 46.9% and in 2017 was 46.5% while Cyprus NPLR in 2016 was 47.4% and in 2017 was 42.7%. In Kenya, the performance of commercial banks recorded a decline in performance as noted by, a decrease in average return on assets over the time of the study, that is, 4.7% in 2013, 3.4% in 2014, 2.9% in 2015, 3.3% in 2016, 2.7% in 2017, 2.7% in 2018, 2.6% in 2019 and 1.7% in 2020.

2.0 STATEMENT OF THE PROBLEM

Commercial banks' major role is for directing funds from surplus units to deficit units. Therefore, through this role, commercial banks contribute directly to the economic growth and development of any country. However, commercial banks of different countries have been struggling to enhance their financial performance after the global financial crisis of 2008-2009. In Kenya, financial performance of commercial banks declined as noted by return on assets; that is, 4.7% in 2013, 3.4% in 2014, 2.9% in 2015, 3.3% in 2016, 2.7% in 2017, 2.7% in 2018, 2.6% in 2019 and 1.7% in 2020. Empirical studies on the effect of Basel accord requirements on financial performance have produced mixed findings. For instance, Udom and Onyekachi (2018); Otwani, et al. (2017) documented that capital related insignificantly with performance while Assfaw (2018); Odonkor and Barmor (2012) found a negative significant effect of capital on performance and Susan and Nasieku (2016) found an insignificant positive effect of capital on performance. Further, these studies assumed direct relationships among study variables. It was against this background that the present study was done on establishing the effect of Basel accord requirements on financial performance of commercial banks in Kenya and the moderating effect of market share on the relationship between Basel accord requirements and the financial performance of commercial banks in Kenya.

3.0 THEORETICAL REVIEW

The study was informed by asymmetry information theory, buffer theory of capital, and relative market power hypothesis. Asymmetry information theory proponents were Akerlof (1970), Spence (1973), and Stiglitz (1961). Asymmetry information is a problem in borrowing and lending of money where the party borrowing has more information about

his/her creditworthiness than the party lending. The disparity in the information held by the borrower and the lender may result in market failure. In a banking context, information asymmetry may arise when the banks have more information about their operations than the regulator or when the borrower has more relevant information than the lender when contracting. Differences in the information held by the parties to a contract may lead to a bank being rated as performing well by the regulator which may not be the case or a lender granting a loan at a lower interest rate to a risky borrower which may not be the case. Thus sharing of information among the borrower and lender may reduce adverse selection (Karim, Chan & Hassan, 2010). Richard (2011) observes that information asymmetry may cause both moral hazard and adverse selection as may be hard to distinguish between bad and good borrowers. Guidarra, Soumare, and Tchana, (2013) established that moral hazard and adverse selection has contributed to the non-repayment of loans in commercial banks since the lender can make either right or wrong credit decision when granting loans due to the borrower's fails to disclose all relevant information to the bank. A moral hazard arises when a party to a contract gives false information about its credit ability, liabilities, and assets. While adverse selection arises when the lender cannot distinguish between higher and lower risk borrowers so as to know the risk premium to charge on loans. These information asymmetry problems may be reduced by screening the borrowers before granting them loans, and information disclosure by banks to the public (David & Muendo, 2018). This theory was applicable in the study in that, in a financial contract, the commercial bank depends on the information provided by the borrower to make a credit decision, when the borrower conceals relevant information to the loan agreement, the commercial bank (lender) may either make a right or wrong credit decision, since it may be hard to differentiate a bad borrower from a good borrower. Hence, this might lead to moral hazard and adverse selection which in turn may affect the financial performance of commercial banks through non-payment of interest on loans. This theory anchors on financial performance as the dependent variable.

The developers of the buffer theory of capital were Calem and Rob (1996). The prediction that commercial banks fear the imposed penalties and hence they tend to maintain a higher amount of capital beyond the set limit by regulators is the basis of the theory. Further, the theory suggests that undercapitalized banks tend to rise their capital towards the internally set target level while overcapitalized banks tend to keep their capital at the target level (Guidarra et al., 2013). In addition, banks with higher capital than the regulatory level tend to reduce their lending activities hence increasing the lending rate due to higher demand of loans by customers. The held-up capital is used by banks to issue loans at bad times in the economy. Moreover, undercapitalized banks tend to either use their retained profits or issue new equity which seems costly to the bank (Krug, Legnick & Wohitmann, 2015). The theory, therefore, predicts a positive connection between capital and the performance of commercial banks. According to Guidarra, et al. (2013) and Tabak, Vasconcelos, and Cajueiro (2013) capital adequacy positively influence bank performance. Buffer's theory of capital was important in establishing the linkage between capital and commercial banks' financial performance in Kenya. Commercial banks tend to hold more money during times when the economy is growing and use the capital to survive at bad times of growth (Shim, 2013). Additionally, undercapitalized banks borrow more to support their assets compared to well-capitalized banks (Munyamonera, 2013; Demirguc-Kunt & Huizinga, 2014). Consequently, the buffer theory of capital was key in establishing the effect of capital on the financial performance of commercial banks in Kenya.

The pioneer of the relative market power hypothesis was Bain (1951) who postulated that only large banks with innovative products may affect the price of different banking products hence increasing their financial performance. The relative market power hypothesis was an improvement of the structure-conduct performance hypothesis which predicted that when banks are many their collusion increases profitability since they are able to raise the lending rates (Bain, 1951). Hoose (2010) established that there was a correlation between market concentration, market share, and financial performance of firms. Mirzaei, Moore, and Liu (2013) linked greater market share with increased bank profitability in emerging economies. Besides, Khan, Ahmed, and Gee (2018) related increased bank financial performance to high market share. The findings of (Hoose, 2010; Mirzaei et al., 2013; Khan et al., 2018) correspond with the relative market hypothesis but Bhatti (2010) result deviated from the hypothesis revealing that high market share leads to low profitability of banks. The moderating effect of market share was established by the relative market power hypothesis between Basel accord requirements and the financial performance of commercial banks in Kenya.

3.1 Empirical Review: Capital and Performance

Udom and Onyekachi, (2018) conducted a study on capital adequacy and commercial bank performance in Nigeria. The capital adequacy was represented by total qualifying capital, capital to risk-weighted assets, and adjusted shareholders fund, while profitability was denoted by return on assets. The results of the study indicated that all capital dimensions did not influence return on assets. The results were in disagreement with Kipruto et al. (2017). However, the study was conducted outside Kenya where the economic, political, and social structures are dissimilar from those in Kenya. Otwani et al. (2017) studied the Nairobi Securities Exchange (NSE) company's performance and capital in Kenya. Capital indicators were capital structure, asset size, cash flows, and portfolio risks while performance indicators were returned on investment and profitability. The results of the study reported an insignificant positive effect of all indicators of capital adequacy on all performance measures. The results of the study corroborated the findings of Susan and Nasieku (2016) and Assfaw (2018) studies. However, the study by Otwani et al. (2017) considered non-financial companies listed in NSE, Kenya, and excluded financial companies which may limit the applicability of the findings in the present context. Susan and Nasieku (2016) conducted a study on the effect of capital on the financial performance of listed commercial banks in Kenya. The findings of the study showed that capital had a positive insignificant effect on the performance of commercial banks. The findings of the study were consistent with those of Udom and Onyekachi, (2018) study which showed that capital has no effect on performance. However, Susan and Nasieku (2016) study considered only listed banks which may hinder the generalization of the findings to all commercial banks. The present study used all commercial banks operating in Kenya from 2013-2020. Moussa et al. (2013) examined the impact of capital on the financial performance of banks in Tunisia for the period between 2000 and 2009. The capital was measured using equity to total asset ratio where measures of financial performance were returned on assets, return on equity, and net interest margin. The study established that capital had a positive relationship with all performance measures, but only the relationship with return on assets was statistically significant. The results of the study supported the findings of Assfaw (2018) study. However, the study was carried out in Tunisia where conditions are different from those dominant in Kenya. Besides that, the study

operationalized capital as equity capital to total assets while the present study defined capital as shareholder's funds to total risk-weighted assets. Odonkor and Barmor (2012) assessed the relationship between capital adequacy and the performance of Ghanaian banks. Capital adequacy was measured as the capital adequacy ratio while return on equity and return on assets, were measures of performance. The study reported a statistically insignificant negative relationship with return on assets whereas a significant negative relationship with return on equity in association with capital adequacy. However, the findings of the study were inconsistent with the findings by Assfaw (2018) which reported a positive and significant effect of capital on performance. The inconsistencies in the findings motivated the researcher to undertake a similar study in a Kenyan context.

3.2 Basel accord requirements, market share, financial performance

Naylah and Cahyaningratri (2020) carried out a study on the influence of market share on the financial performance of commercial banks in Indonesia. Panel data was analyzed using a fixed effect model. The study reported a positive and statistically insignificant effect of market share on financial performance. The study recommended that the moderating effect of market share be tested by future studies. Thus, the present study extended Naylah and Cahyaningratri's (2020) study by testing the moderating effect of market share on the relationship between Basel accord requirements and the financial performance of commercial banks in Kenya. Birru (2019) carried out a study on the elements of the insurance companies' profitability in Ethiopia. The study used specific, industry, and macroeconomic variables. Profitability was measured using ROA and ROE while gross premium to gross industry premium proxied market share. Panel linear regression models and descriptive statistics were involved in the data analysis. Results indicated age, liquidity, premium growth, the tangibility of assets, market share and inflation had a positive relationship with ROA although the effect of the tangibility of assets, liquidity, and inflation was statistically insignificant, while leverage and underwriting risk confirms insignificant negative results on ROA but the gross domestic product (GDP) has a significant negative effect on ROA. Age, leverage, liquidity, premium growth, the tangibility of assets, market share, and inflation had a positive influence on ROE but only age was statistically significant. GDP has an inverse significant impact on ROE while underwriting risk has a statistically insignificant negative effect on ROE. The present study extended the Birru (2019) study by testing the moderating of market share influence on Basel accord requirements and commercial banks' financial performance in Kenya. Arif et al. (2018) evaluated the effect of concentration ratio and market share on the financial performance of Islamic banks in Indonesia. Data were analyzed using random and fixed effect models. The study findings suggested that market share and concentration ratio has a statistically insignificant positive and negative influence on financial performance respectively. The study established that large or small market share does not affect financial performance.

3.3 Conceptual framework and Hypotheses

Based on the empirical and theoretical review, the study proposed a conceptual framework (figure 1) that predicts the effect of Basel accord requirements on the financial performance of commercial banks in Kenya.
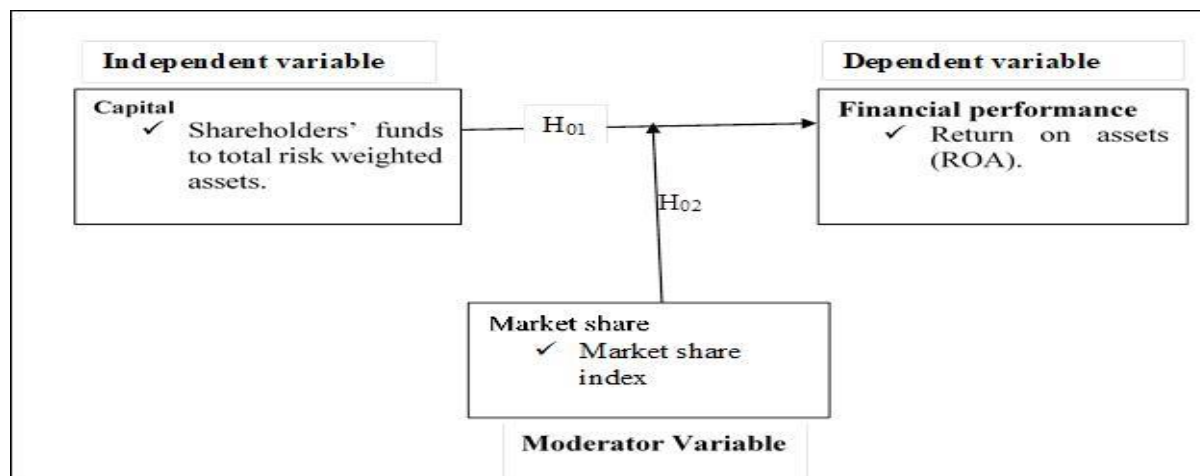
Figure 1: Conceptual framework

Source: Researcher (2020)

3.4 Research Hypotheses

H01: Capital has no significant effect on the financial performance of commercial banks in Kenya.

H02: Market share has no significant moderating effect on the relationship between Basel accord requirements and financial performance of commercial banks in Kenya.

4.0 RESEARCH DESIGN

A casual research design was used to find the extent and the nature of cause-and-effect relationships prevailing between capital and financial performance. According to Zikmund, Babin, Carr, and Griffin (2013), the causal research design is used to assess what effect a specific change will have on prevailing norms and assumptions. Thus, capital as a regressor variable was varied to establish the change in the criterion variable, financial performance. The research design consists of how the research objective was achieved. That is, it shows how the data was collected, measured, and analyzed (Saunders et al., 2012).

4.1 Empirical model for Direct Effect

$$ROA_{it} = \beta_0 + \beta_1 CA_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.3.2$$

Where:

ROA_{it} = Return on asset ratio for bank i at time t

CA_{it} = Capital for bank i at time t

4.2 Empirical model for Moderated Effect

$$ROA_{it} = \beta_0 + \beta_1 CA_{it} + \beta_2 M_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.3$$

$$ROA_{it} = \beta_0 + \beta_1 CA_{it} + \beta_2 M_{it} + \beta_3 (M * CA)_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.4$$

Table 1: Operationalization and measurement of study variables

Type	Variable	Operationalization	Measurement	Measurement scale
Dependent	Financial performance	Profitability	ROA=Earnings before interest and tax/Total assets	Ratio
Independent	Capital	Equity capital	Capital=Shareholder's funds/Total risk weighted assets	Ratio
Moderator	Market share	Market share index (MSI)	MSI=Weighted composite index measured by capital, assets, deposits, loan and deposit accounts.	Ratio

Source: Researcher (2021)

4.3 Target Population

The target population for the study consisted of forty-three commercial banks operating in Kenya over the period of study (2013-2020). However, the unit of analysis involved commercial banks which were not placed under statutory management and were actively trading during the time of the study. Therefore, five commercial banks were excluded from the study, and a sample of thirty-eight commercial banks was chosen using the purposive sampling technique.

4.4 Data Collection Procedure

The study used panel data consisting of both time series and cross-sectional data. This enhanced the quality and quantity of data which would be impossible when using either cross-section or time series data only (Greene, 2011). The data for all the study variables were extracted from banking supervision reports and published financial reports of all commercial banks covering the years 2013-2020 using a document review guide.

4.5 Data Analysis and Presentation

Data were analyzed using descriptive statistics such as minimum and maximum, standard deviation and mean; inferential statistics including; panel regression analysis, and correlation

analysis. Descriptive statistics were used to explain the patterns of Basel accord requirements and performance of commercial banks in Kenya while the existence of the relationships between Basel accord requirements and financial performance measures were tested using correlation analysis, panel linear regression models after accounting for the violations of classical linear regression assumptions. Hausman specification test was done to decide whether to fit the random or fixed effect model.

5.0 EMPIRICAL RESULTS AND DISCUSSION

Table 2 shows descriptive statistics for the data used in the analysis.

Table 2: Descriptive Statistics

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Financial Performance	284	.0261067	.0381216	-.1980881	.4938343
Capital	284	.2115947	.1639331	0.0000025	2.130206
Market share	284	2.640634	3.318887	0	14.4

Source: Study Data (2021)

The results in table 2 show that financial performance in terms of return on assets for 284 observations had a mean value of 0.0261067, a standard deviation of 0.0381216 with minimum and maximum values of -0.1980881and 0.4938343 respectively. The standard deviation value was higher than the mean value, indicating that during the period of study (2013-2020) there was greater variability in return on assets across commercial banks, which was corroborated by the difference between maximum (0.4938343) and minimum (-0.1980881) values. The positive value of financial performance means that, commercial banks were on average profitable but a negative minimum value of -0.1980881 indicates that some commercial banks were operating at a loss over the same time of study.

From table 2 capital in terms of shareholders' funds to total risk weighted assets for 284 observations had a minimum value of 0.0000025 and a maximum value of 2.130206 with a mean value of 0.2115947 and a standard deviation of 0.1639331. Capital was positive implying that Kenya banking industry was sustainable and thus increase in capital enhances financial performance of commercial banks as measured by return on assets (Umoru &Osemwegie, 2016). Further, standard deviation was lesser than the mean implying that there was smaller variability in capital over the time of study (2013-2020), which was supported by the difference between maximum (2.130206) and minimum (0.0000025) values.

From the results presented in table 2 market share had a mean value of 2.640634 and a standard deviation of 3.318887. The results show that, there was a greater variability in market share across banks during the period of analysis (2013-2020) since standard deviation was greater than mean value which was supported by the difference between maximum (14.40) and minimum (0) values. A positive value of market share means that, increase in market share of commercial banks enhances return on assets (Birru, 2019).

5.1 Diagnostic Test Results

The study conducted the following diagnostic tests; panel unit root, normality, heteroscedasticity, autocorrelation and model specification.

5.2 Panel Unit Root Test

The study utilized Fisher-type tests of panel unit root because the panel was unbalanced and the individual series had gaps.

Table 3: Panel Unit Root Test

		Level		First difference	
Variable	**Tests**	**Statistic**	**p-value**	**Statistic**	**p-value**
Financial performance	Inverse Chi-Squared	93.2791	0.0644	107.4934	0.0027
	Inverse Normal	-0.1466	0.4417	0.2911	0.6145
	Inverse Logit	-0.2029	0.4197	-0.4693	0.3197
	Modified Inv. Chi-Squared	1.5847	0.0565	3.1688	0.0008
Capital	Inverse Chi-Squared	195.6957	0.0000		
	Inverse Normal	-8.0861	0.0000		
	Inverse Logit	-8.4011	0.0000		
	Modified Inv. Chi-Squared	10.0033	0.0000		
Market share	Inverse Chi-Squared	85.1243	0.1771	123.8898	0.0001
	Inverse Normal	1.5762	0.9425	-0.5500	0.2912
	Inverse Logit	0.7950	0.7862	-1.5673	0.0594
	Modified Inv. Chi-Squared	0.9144	0.1802	4.5545	0.0000

Source: Study Data (2021)

The results in table 3 show that capital had p-values of zero implying the rejection of the null hypothesis that all the panels contain a unit root while financial performance and market share first differences were obtained thus avoiding spurious results. Therefore, capital was integrated in the order of zero while financial performance and market share were integrated in the order of one (Greene, 2011).

Table 4: Heteroscedasticity Test

H0: Data is homoscedastic
Chi2 (37) = 3.2e+05
Prob>Chi2 = 0.0000

Source: Research Data (2021)

The test results in table 4 show that F test value of 3.2e+05 with the p-value of 0.000<0.05. This implied that the rejection of the null hypothesis that the data was homoscedastic. The study used the robust standard errors option to solve heteroscedasticity problem.

Table 5: Autocorrelation Test

H0: No first-order autocorrelation
   F (1, 35) = 2.394
   Prob > F = 0.1308

Source: Study Data (2021)

The results in table 5 show that F test value of 2.394 with a p-value of 0.1308>0.05. The study therefore failed to reject the null hypothesis that first order autocorrelation existed since the p-value was above 0.05 significance level.

5.3 Model Specification Test

The researcher had to apply either random or fixed effects model hence the decision was made using Hausman specification test (Baltagi, 2013). The null hypothesis stated that random model was preferred to fixed model. Model specification test reported a chi-square of 12.35 with a p-value of 0.0063<0.05. The results indicated that the chi-square value was statistically significant at 5%. Hence the null hypothesis that random model was preferred to fixed model was rejected. The study concluded that fixed effect model was consistent. The researcher then tested for panel effects in the data by using Breusch and Pagan Lagrangian multiplier test for random effects. The null hypothesis stated that pooled regression effect model was preferred to fixed effect model. The chibar2 value was zero with a p-value of 1.0000 hence the null hypothesis that pooled regression model was preferred to fixed effect model was not rejected. The researcher concluded that the data did not have panel effects and thus employed pooled regression model (Greene, 2011).

Table 6: Results of correlation analysis

	Financial Performance	Capital
Financial Performance	1.0000	
Capital	0.0836 (0.1600)	1.0000
Market share	0.4416 (0.0000)	-0.0117 (0.8450)
p-values in the parenthesis, denotes 5% level of significance		

Source: Study Data (2021)

From the output in table 6 the study found that capital correlated insignificantly with financial performance r=0.0836 (0.1600) while market share positively and significantly correlated with financial performance r=0.4416 (0.0000).

5.4 Inferential statistics: Regression analysis and Hypothesis testing

The following hypotheses were tested by the study.

H01: Capital has no significant effect on financial performance of commercial banks in Kenya.

The hypothesis H01 was tested using model 3.2 at 5% significance level and the results displayed in table 7.

Table 7: Effect of Basel accord requirements on financial performance of commercial banks in Kenya

	Coefficient	Robust Std. Err.	t	P>t
Capital	.024888	.0114144	2.18	0.030
Constant	.0044411	.0056281	0.79	0.31
Dependent variable= Financial performance (ROA)				

Source: Study Data (2021)

The following model was formulated based on the analysis in table 7.

$$ROA_{it} = 0.0044411 + 0.24888CA_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.2$$

As shown in table 7, the coefficient of capital (β=.024888, p=0.030<0.05) indicates that capital had positive and significant effect on financial performance of commercial banks in Kenya. This implies that the null hypothesis was rejected at 5% significance level. The current study findings corroborated with those of Assfaw (2018) and Moussa et al. (2013) which indicated capital had positive and significant effect on financial performance. However, the study finding contradicted with those of Odonkor and Barmor (2012), Chinoda et al. (2015) whose results showed that capital had an insignificant effect on financial performance. The contradictions in the findings could be due to contextual differences.

H02: Market share has no significant moderating effect on the relationship between Basel accord requirements and financial performance of commercial banks in Kenya.

The study tested H02 using two-steps approach as detailed by Baron & Kenny (1986) in order to determine the moderating effect of market share on the relationship between Basel accord requirements and financial performance of commercial banks in Kenya. In the first step, market share was incorporated as an independent variable while in the second step market share was included as a moderator variable. Regression results are as presented in table 8 (first step) and 9 (second step).

Table 8: Market share as an explanatory variable on ROA

	Coefficient	Robust Std. Err.	t	P>t
Capital	.0218286	.0170004	1.28	0.200
Market Share	.004546	.003138	1.45	0.149
Constant	.004173	.0065277	0.64	0.523
Dependent variable= Financial performance (ROA)				

Source: Research Data (2021)

The following model 3.3 was formulated based on the results in table 8.

$$ROA_{it} = 0.004173 + 0.021829CA_{it} + 0.004546M_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.3$$

As shown in table 8, market share coefficient (β=0.004546, p-value of 0.149>0.05) indicates a positive and an insignificant effect of market share on financial performance of commercial

bank in Kenya. This indicates that market share does not directly affect financial performance (ROA) and hence can moderates the relationship between Basel accord requirements and financial performance of commercial banks in Kenya. This result validates the findings of Arif et al. (2018) who found that market share has a positive and insignificant effect on financial performance of Islamic banks in Indonesia.

Table 9: Market share as a moderator variable on ROA

	Coefficient	Robust Std. Err.	t	P>t
Capital	0.0559723*	0.017887	3.13	0.002
Market share	0.0128236*	0.00577	2.22	0.027
Interaction between capital and market share	-0.004643*	0.0019106	-2.43	0.016
Constant	-0.0081872	0.0099765	-0.82	0.413
Dependent variable= Financial performance (ROA)				
*denotes 5% level of significance.				

Source: Research Data (2021)

Based on the analysis in table 9 the following model 3.4 was formulated.

$$ROA_{it} = -0.0081872 + 0.0559723CA_{it} + 0.0128236M_{it} - 0.004643(M*CA)_{it} + \varepsilon_{it} \dots.3.4$$

As shown in table 9, the market share coefficient (β=0.0128236, a p-value of 0.027<0.05) displays that market share has a positive significant effect on the financial performance of commercial banks in Kenya. This means that market share directly affects financial performance and thus moderates the relationship between Basel accord requirements and the financial performance of commercial banks. The results in table 9 show the coefficient of interaction between capital and market share as a moderator variable (β=-0.004643, a p-value of 0.016<0.05) has a negative and significant effect on ROA. Thus, the second hypothesis that market share has no significant moderating effect on the relationship between Basel accord requirements and the financial performance of commercial banks in Kenya was rejected.

6.0 CONCLUSION AND RECOMMENDATIONS

This study analysed the effect of Basel accord requirements on the financial performance of commercial banks in Kenya using positivism research philosophy and causal research design. Based on the hypotheses, the study found that capital had a positive significant effect on the financial performance of commercial banks in Kenya. The finding is supported by several empirical studies although it also contradicts other studies. Therefore, the study concludes that as commercial banks hold more capital their financial performance increases since they may use the held-up capital to issue new loans to customers at times when the economy is not performing well. Further, market share had negative significant moderating effects on the

relationship between Basel accord requirements and the financial performance of commercial banks in Kenya. The study recommends that the central bank of Kenya should be on the lookout for the reduction of capital levels among commercial banks in Kenya so as to prevent financial crises from occurring hence maintaining confidence in the banking sector. Market share had a negative and significant moderating effect on capital and financial performance of commercial banks in Kenya relationship. The study accordingly, recommends that commercial bank managers in Kenya should ensure that there is vigorous product promotion as well as the development of innovative products so that they can attract more customers hence increasing their customer base and deposits.

6.1 Suggestions for Further Research

The scope of this study was commercial banks licensed and operating in Kenya between the period 2013-2020. A similar study can be conducted to investigate the effect of Basel accord requirements on the financial performance of other financial and non-financial institutions operating in Kenya.

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