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IMPORTANCE OF CAPITAL ADEQUACY REQUIREMENTS IN BASEL III FRAMEWORK FOR COMMERCIAL BANKS IN KENYA

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Abstract

Purpose: The purpose of the study was to examine the importance of capital adequacy requirements in Basel III framework for commercial banks in Kenya

Methodology: A descriptive survey design was applied to a population of 43 commercial banks operating in Kenya. The target population composed of the 159 management staff currently employed at the head offices of the various commercial banks in Kenya. The population was composed of Senior, Middle and Junior or Entry level Management staff. A sample of 30% was selected from within each group. Primary data was gathered using questionnaires which were dropped off at the bank's head offices and picked up later when the respondents had filled the questionnaires. Descriptive analysis was used to analyze quantitative data while content analysis was used to analyse qualitative data.

Results: The study concludes that capital adequacy requirement is perceived to be important in commercial banks. The study thus deduces that financial stability, credit risk management, reduced vulnerability to liquidity shocks balance sheet structure and deposit insurance affect the capital requirement of the commercial banks in Kenya. In addition, the study concluded that Basel III increases capital requirements for counterparty credit risk arising from derivatives, repurchase agreements and securities financing activities.

Unique contribution to theory, practice and policy: The study recommends that banks should ensure a flexible Basel III management expertise that delivers speed, accuracy, and performance to deliver competitive advantage.

Keywords: *Basel III framework, capital adequacy requirement, commercial banks*

1.0 INTRODUCTION

1.1 Background of the Study

The global financial crisis of 2009-2010 spurred the need to review the regulatory framework of banks across the globe. As a result, reforms were necessary to rectify flaws in the regulatory framework. The Basel Committee on Banking Supervision (BCBS) is leading efforts to reform the global banking regulatory framework (BCBS, 2010a). In December 2010, BCBS announced Basel III proposals which national regulators and regional supervisory organisations are reviewing to evaluate its suitability to conditions in their own financial systems. According to Bean (2009), the banks were undercapitalised which is one of the reasons behind the 2007-2010 financial crises. The financial crisis 2007-2009 still has effects on international financial markets and the real economy.

Key lessons from the global financial crisis revolve around leverage, capital and liquidity. According to BCBS (2010b) the existence of the credit bubble, alongside with the constant innovation in financial products and techniques and fair value accounting have to be cited in this context as additional causes of the crisis. In addition, inadequate bank regulation is viewed as one of the main causes of the financial crisis (BCBS, 2010a; Calice, 2010).

According to Financial Stability Board (2011) global crises had a huge impact on banks across the world. The crisis resulted from too much leverage, little capital and inadequate liquidity by many banks. They were thus unable to absorb their large trading and credit losses that had occurred since 2007 and many banks failed (International Monetary Fund, 2010). The weaknesses in the banking sector were rapidly transmitted to the rest of the financial system and the economy resulting in a massive contraction of liquidity and credit availability (Moreno, 2011).

Basel III is the third instalment of the Basel accords and is a global regulatory standard set by the BCBS on capital adequacy (including a new leverage ratio and capital buffers), market liquidity risk (with new short-term and long-term liquidity ratios) and stress testing focusing on stability. The Basel III reforms to global regulatory standards were agreed by the G-20 in November 2010 and were then issued by the Basel Committee on Banking Supervision in December 2010 (BCBS, 2010a). The key aim of these reforms is to strengthen the capital adequacy requirements with regard to quality and quantity of capital which banks must hold in order to absorb losses.

The Basel III framework, whose main thrust has been enhancing the banking sector's safety and stability, emphasises the need to improve the quality and quantity of capital components, leverage ratio, liquidity standards, and enhanced disclosures. Basel III is therefore an effort to control the causes of the most recent crisis. Regulation of this sort has been effective in the past (BCBS, 2010b).

Basel III introduces new and enhanced rules, these includes the introduction of a new and stricter definition of capital – designed to increase consistency, transparency and quality of the capital base – and the introduction of a global liquidity standard (BCBS, 2010a,b). The two new liquidity ratios – the longer-term Net Stable Funding Ratio (NSFR) and the short-term Liquidity Coverage Ratio (LCR)–call on banks to raise high-quality liquid assets and acquire more stable sources of funding, ensuring that they are in agreement with the principles of liquidity risk management. In addition, Basel III introduces a new leverage ratio,

a substitute to the risk-based Basel II framework. By setting 3 percent as the ratio of Tier 1 Capital to total exposure, the new leverage ratio may limit banks' scope of action (BCBS, 2010c).

Moreover, Basel III increases capital requirements for securities financing activities, repurchase agreements and counterparty credit risk arising from derivatives. Additionally, the new framework has formulated ways of reducing systemic risk and the cyclical effects of Basel II. For instance, it introduces a countercyclical capital buffer and capital conservation, and discusses "through the- cycle" provisioning. The bursting of the credit bubble led to a rapid decline in asset prices, combined with a reduction in what Wilmot, Sweeney, Klein & Lantz (2009) dubbed, the stock of shadow money, liquid assets which take up the role of money to finance the expansion during an economic boom.

Basel III is poised to have a significant impact on the world's financial systems and economies. The implications for the banking industry from Basel III could be profound. According to BCBS (2010b) new minimum capital standards changes combined with the higher capital charges for trading books make some business models less profitable or even unprofitable going forward and banks will need to rethink their strategy and business portfolio in the light of the changes.

As the ailing global economy blew cavernous holes in national budgets, mounting censure was directed to financial regulators in OECD nations. Their counterparts in emerging economies have not escaped fierce condemnation for blatantly (Ashcraft and Schuermann, 2008). While credit rating firms failed to properly measure the inherent dual risks arising from sub-prime loans and the new financial architecture, policymakers resorted to easy money and low interest rates to further boost house purchases and consumption (Mishkin, 2008). All the more, the openness of international financial markets tempted western governments to expand their expenditure by taking up huge foreign debt at cheap interest rates especially since they were weary of rebounding into a post-2001 recession.

The issuance of government bonds tamed emerging economies' hunger for holding solid sovereign securities (Balin, 2010). Consequently, western fiscal agents accumulated national debt that approached the perilous threshold of 90 percent debt-to-GDP ratio boding an economic predicament (Reinhart and Rogoff, 2010). Despite the fact that Macroprudential regulation is necessary for Africa, the proposals in Basel III are still inadequate in reducing systemic risks on the continent. This is because they do not deal with systemic threats resulting from cross border capital flows arbitrated through the banking system.

Lukonga and Kay (2010) argue that the regulatory shortcomings facing Africa need a larger collection of instruments than those offered in Basel III. These instruments can include limitation to foreign exchange exposure and regulations to limit amassing of large loan. This calls for a more aggressive regulatory regime to warrant a more healthy and flexible financial system in Africa. Most African countries inflict restrictions on business activities, banks' large loan concentrations and foreign exchange exposures which are not within the traditional commercial banking.

Lukonga and Kay (2010) further argued that African bank regulation are more forceful compared to the advanced economies which basically rely on just one regulatory instrument, the capital adequacy requirement, which exposed the advanced economies to "gaming" by banks to reduce the amount of capital they had to hold. The potential impact of Basel III on

the banking system is significant. Banks will experience increased pressure on their Return on Equity (RoE) due to increased liquidity and capital costs. In particular, Basel III creates incentives for banks to improve their operating processes – not only to meet requirements but also to increase efficiency and lower costs (BCBS, 2010a).

Kenyan banks are forced to improve their capital buffers through increased capital adequacy requirements, as well as the introduction of liquidity requirements and countercyclical macro prudential measures (BCBS, 2010). The banks are also required to maintain a total capital to risk-weighted assets ratio- a gauge of a bank's financial strength based on total capital including items such as goodwill and revaluation of 14.50 per cent, up from the current 12 per cent (CBK, 2013). Banks are building their buffer capital in line with the CBK's prudential requirements and CBK is undertaking stress-testing to ensure that this progresses well within the 18-month build up window.

Currently, the minimum capital requirements for Kenyan banks are already above the proposed minimums as the tier 1 capital to Total Risk Weighted Assets stands at 8 per cent and total capital to total risk weighted assets at 12 per cent. An analysis of the two ratios for banks shows that the top six and other tier two banks such as Diamond Trust and NIC Bank are already in compliance with the new requirements. Equity, Barclays and Co-operative Banks adjusted their ratios in advance, their adoption of new accounting methods resulting in a drop in both ratios as at June 2013 when compared with December 2012 (CBK, 2013).

Further, the progressive increase of the minimum core capital of banks and mortgage finance companies to Ksh1 billion (\$12.5 million) by 2012 will position the Kenyan banks to exploit new market niches and absorb any emerging shocks. As at December 2013, the Kenyan Banking system comprised of 43 commercial banks, 2 NBFIs, 4 building societies and 48 foreign exchange bureaus Central Bank of Kenya, (2013). This study aimed at carrying out a study on the effects of Basel III framework on capital adequacy of commercial banks in Kenya.

1.2 Problem Statement

The aggregate effects of the requirements vary from one bank to another. Among large banks almost all of them have had to deal with its far reaching implications. Several studies have been carried out with regard to such bank regulations across the globe. In Egypt for the period 1989-2004, using a bank scope data base for 28 banks Naceur and Kandil, (2009) analysed the effects of capital regulations on the stability and performance of banks. The study analysed two measures of performance: cost of intermediation and banks' profitability-measured by return on assets. Result revealed that banks raise the cost of intermediation as the capital adequacy ratio internalizes the risk for shareholders. This results to higher return on assets and equity revealing the need for capital regulation to the performance of banks and financial stability in Egypt. Their study suggested that the use of structural reforms aiming at establishing more competition in the banking industry can help ensure that performance indicators are corresponding with the best practices of the intermediation function that assures financial stability over time.

According to the quantitative impact study conducted by the Basel Committee (2010c), on average the newly defined capital ratio (Common Equity Tier I ratio) of large banks decreases from 11.1 percent to 5.7 percent, due to the change of definition of capital and the changes in risk-weighted assets. Furthermore, Basel III increased the required minimum

capital level percent to more than 7 percent. Kamau et.al (2004) used the simultaneous equations approach to model the regulatory effect of minimum capital requirements on bank risk behaviour and capital levels in Kenya for the period 2000-2002. This study established that the Kenya's banking sector has an oligopolistic market structure.

To the best of the researcher's knowledge, no study had ever concentrated on assessing the effects of Basel III framework on capital adequacy of commercial banking industry in Kenya hence the research gap that the current study sought to fill. This study was built on the premise that the passage of time and the very numerous and significant changes in the commercial banks operating environment have led to totally different operating environment after the Basel III framework requirements.

1.3 Research Objectives

The purpose of this study was to assess the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

2.0 LITERATURE REVIEW

2.1 Empirical Review

Mutesi (2011) sought to investigate the relationship between risk management, information and financial performance of commercial banks. The research objectives that guided the study were, to examine the relationship between information sharing and risk management, to examine the relationship between information sharing and financial performance, to investigate the relationship between information sharing, risk management and financial performance. A sample of 104 commercial banks branches were selected from a total of all the branches of commercial banks in Kampala. The respondents were purposively selected from each branch. Cross-sectional research design was used in this study. Questionnaires were used collect primary data. SPSS package was used to analyze data. Descriptive regression and correlation analysis were carried out.

The findings revealed that there was a significant positive relationship between all the study variables information sharing, risk management, and financial performance. The study recommended that banks should put up strong information sharing premises like credit bureaus, enrich their risk management committee, credit committee and audit function so as to minimize risks. The study also recommended that banks should recruit qualified staff and embrace training as a common practice in the banking industry in order to improve risk management policies and hence improved financial performance.

Abiola and Olaisi (2014) sought to investigate the impact of credit risk management on the performance of commercial banks in Nigeria. Secondary data was obtained from financial reports of seven commercial banking firms. The study used a time series methodology whereby data was obtained for seven years (2005–2011). The panel regression model was employed for the estimation of the model. In the model, Return on Equity (ROE) and Return on Asset (ROA) were used as the performance indicators while Non-Performing Loans (NPL) and Capital Adequacy Ratio (CAR) as credit risk management indicators. The findings revealed that credit risk management has a significant impact on the profitability of commercial banks in Nigeria.

Hosna, Manzura and Juanjuan (2009) sought to find out how credit risk management affects the profitability of banks in Sweden. The study used the quantitative approach and

concentrated on the description of the outputs from SPSS. Regression model was used to do the empirical analysis. In the model ROE was defined as profitability indicator while NPLR and CAR as credit risk management indicators. The data was collected from the sample banks annual reports (2000-2008) and capital adequacy and risk management reports (2007-2008). The findings and analysis showed that credit risk management has effect on profitability in all 4 banks. Among the two credit risk management indicators, NPLR had a more significant effect on profitability (ROE) than CAR.

Mwangi (2012) examined the effect of credit risk management on the financial performance of commercial banks. The study used a descriptive research design. The study used secondary data which was obtained from the commercial banks' annual reports (2007-2011). Of the 43 commercial banks in Kenya, complete data was obtained from only 26 banks and thus the study concentrated on the 26 banks. The data obtained from the annual reports of the banks was analyzed using multiple regression analysis. Statistical Package for Social Sciences (SPSS version 18) was used to obtain the regression output. In the model return on equity (ROE) was used as the profitability indicator while non-performing loans ratio (NPLR) and capital adequacy ratio (CAR) as credit risk management indicators. Results revealed that there is a significant relationship between financial performance (in terms of profitability) and credit risk management (in terms of loan performance and capital adequacy). The results of the analysis revealed that both non-performing loans ratio (NPLR) and capital adequacy ratio (CAR) have negative and relatively significant effect on return on equity (ROE), with NPLR having higher significant effect on ROE in comparison to CAR. The study recommended that all banks should take on a credit risk grading system. The system should define the risk profile of borrower's to ensure that account management, structure and pricing are proportionate with the risk involved. Risk grading is a key measurement of a Bank's asset quality, and as such, it is essential that grading is a robust process. All facilities should be assigned a risk grade. Where deterioration in risk is noted, the risk grade assigned to a borrower and its facilities should be immediately changed. Borrower Risk Grades should be clearly stated on Credit Applications.

A bank's balance sheet structure is the only true measure of analysing a bank's financial performance and wellbeing as capital requirements do not take into account either the competence, depth and integrity of management (Commission of the European Communities, 2004). Capital requirements have become the only true internationally accepted standards of bank soundness (Mishkin, 2008). Due to the scrutiny of the banks' balance sheet structure from regulators and other stakeholders capital adequacy has emerged as major strategic theme for bank managers, one to which they devote an increasing amount of time and effort: capital provides a fund against which to charge unexpected or temporary losses, thus acting as a safety cushion for equity holders and debt holders, capital is considered by competitors, customers and rating agencies as a proxy for soundness (BCBS, 2010b; Taylor, 2011).

Kapan and Minoiu (2013) examined the role of bank balance sheet strength in the transmission of financial sector shocks to the real economy. The study used data from the syndicated loan market, they took advantage of variation in banks' dependency on wholesale funding and their structural liquidity positions, in 2007 quarter two, to approximate the effect of exposure to market freezes during 2007-08 on the supply of bank credit. Results revealed that banks with strong balance sheets were better in maintaining lending during the crisis. Particularly, banks that were ex-ante more dependent on market funding and had lower

structural liquidity reduced the supply of credit more than other banks. However, higher and better-quality capital minimized this effect. Hence, it can be concluded that strong bank balance sheets are key for the recovery of credit following crises, and provide support for regulatory proposals under the Basel III framework.

Some proof points to the pro-cyclicality of leverage among financial institutions leading to aggregate volatility. This pro-cyclicality arises when financial institutions finance their assets with non-equity funding (i.e., debt financed asset expansions). Wholesale funding is a key source of market-based funding that enables institutions to adjust their leverage quickly. As such, financial institutions that are dependent on wholesale funding are likely to have higher degrees of leverage pro-cyclicality. Using high frequency balance sheet data for the world of banks, Damar, Meh and Terajima (2010) sought to identify whether there exists a positive relationship between the assets and leverage in Canada, the role played by wholesale funding for this relationship and market and macroeconomic factors associated with this relationship. The findings of the empirical analysis revealed that a strong positive relationship exists between asset growth and leverage growth, and the use to wholesale funding is a key determinant of this relationship. Furthermore, liquidity of several short-term funding markets matters for pro-cyclicality of leverage.

Using the non-parametric Malmquist methodology Casu and Girardone (2010) analyzed the importance of the inclusion of off-balance sheet (OBS) business in the definition of banks output when estimating total factor productivity change indexes. The analysis encompassed the total factor productivity change into technical efficiency and technological change. The results were in line with the common view in the recent literature, indicating that the exclusion of non-traditional activities leads to a misspecification of banks output. In particular, the inclusion of OBS items raised the estimated productivity levels for all countries under study. However, the impact was bigger on technological change rather than efficiency change. Overall, results suggest that despite the uneven distribution of OBS between countries and among different institutions in the same country, these non-traditional activities are very important and failure to account for them would lead to biased conclusions.

The Deposit Protection Fund Board (DPFB) Kenya was established in 1985, under Section 36 of the Banking Act. This followed a number of bank failures in Kenya. Its mission is to build confidence in the banking sector through the provision of an effective deposit insurance scheme. Currently DPFB operates administratively as a department of Central Bank of Kenya. A new Kenya Deposit Insurance Act has established Kenya Deposit Insurance Corporation which will be independent and autonomous (Kimani, 2013).

Minh (2014) sought to study Deposit Insurance of Vietnam (DIV). The first objective of the study was to determine the benefits of DIV to the national banking system, and to the bank depositors. The second objective of the study was to analyse the knowledge of DIV among the bank employees of the Asian Commercial Bank (ACB), Vietnam. The study used a qualitative research method as a single case study for the case bank ACB in Vietnam. The study used primary data which was collected through interviews with the manager, and three employees of the case bank. Results revealed that the basic information of DIV is well-perceived by three of the four bank employees interviewed. Depending upon the duties of bank employees interviewed in the case bank, their knowledge of DIV's key elements, benefits, and limitations can be improved. The study recommended that banks should

increase employees' knowledge of DIV for both the bank and insurer organisation. In terms of the case bank, it is recommended that some training methods should be implemented, for example professional training and consulting in forms of lectures, workshops, and seminars. With regard to the insurer organisation, it is recommended that different communication tools should be used to publicize DIV effectively.

Hamada (2011) investigated market discipline by depositors in the Indonesian banking sector. The study sought to give answers to the following questions; Does depositor discipline fulfill its role in Indonesia? Does deposit insurance affect depositor behavior thereby imposing discipline on banks? These questions are empirically examined using panel data on Indonesian commercial banks from 1998 to 2009. In Indonesia deposit insurance was introduced in 2005. Depositor discipline was examined by two measures: change in the interest rate and amount of deposits. Results revealed that depositors are keen to bank soundness and riskiness and select banks based on the bank's condition paying attention to equity ratio. It is found that depositors impose discipline on banks, but it varies according to regulatory and economic circumstances.

Financial stability is one of the most widely discussed issues in today's economic literature. The relevance of analyses on financial stability was first recognised during the international financial crises at the end of the 1990s, also strengthened by the financial and economic crisis emerging in 2007. These developments prompted the need for continuously providing the professional public opinion with an up-to-date and reliable picture of the condition of a given country's financial sector. Owing to the mutual relations of dependence – affording interpretation on both a vertical and horizontal level – the analyses need to cover the whole financial intermediary system (Reinhart and Rogoff, 2010).

Budding confirm that regulatory policy that restrict entry and banks' activities are negatively linked with bank industry stability. Banking systems having more limitations on banks' activities and hindrances to bank entry face systemic banking distress. On the other hand, capital regulations has no influence on banks financial stability (Barth, Caprio and Levine 2004; Beck et al. 2006). Nevertheless, in highly concentrated markets, financial institutions may judge that they are "too-big-to-fail" resulting to even riskier investments (Berger et al., 2008).

Results of a study conducted by Boyd et al. (2006) and De Nicolo and Loukoianova (2006) revealed that there exists an inverse relationship between higher market concentration and financial stability which is an implication that the risk of failures of a bank is higher in more concentrated markets. When analysing the stability of an institutional system, one examines the degree in which the whole of the system is capable of resisting external and internal shocks. Shocks do not always result in crises, but an unstable financial environment can in itself impede the healthy development of the economy. In global bank regulatory standards Basel III was the first framework to launch a specific macro-prudential measure seeking to deal with challenges to systemic stability; the countercyclical capital shield for the first time. The main aim of this was to control the levels of the credit cycle and chiefly to shun sharp declines of credit during cyclical recession which can have adverse effects on the real economy.

Vodová (2013) sought to find out determinants which affect liquid asset ratio of Czech and Slovak commercial banks. The data covers the period from 2001 to 2010. The study

examined four bank specific factors and nine macroeconomic factors. Results of panel data regression analysis showed that although Czech Republic and Slovak Republic have a lot in common, different factors determined banks' liquid assets in individual countries. The liquid asset ratio of Czech banks increased with increase in capital adequacy, with depreciation of Czech koruna and with worsening quality of credit portfolio. Liquidity of Slovak banks decreased with size of the bank, with higher capital adequacy, higher bank liquidity and during periods of financial crisis. Liquidity of Slovak banks was also positively related to economic cycle.

Raddatz (2010) provided a systematic evidence of the role of banks' reliance on wholesale funding in the international transmission of the ongoing financial crisis. The researcher carried out an event study to estimate the impact of the liquidity crunch of September 15, 2008, on the stock price returns of 662 individual banks across 44 countries, and tested whether differences in the abnormal returns observed around those events related to these banks' ex-ante dependence on wholesale funding. Globally and within countries, banks that were highly dependent on non-deposit sources of funds had a larger decline in stock returns even after controlling for other mechanisms implying that liquidity played an important role in the transmission of the crisis.

Botoe (2012) analysed the impact of liquid asset holdings on Commercial Banks in Liberia profitability. The study used regression analysis to analyze the profitability of commercial banks using balanced data over the period of 2006-2011. The study used the liquidity asset to estimate the relationship between liquid asset and profitability. Results revealed that the business cycle of a commercial bank, deposit ratio and asset ratio influenced banks profitability.

3.0 RESEARCH METHODOLOGY

This study used a descriptive research design. The population of this study comprised of the commercial banks operating in Kenya. The target respondents included the 159 departmental heads, assistant departmental heads and lower cadre staffs like the supervisors, accounts and finance officers from the selected commercial banks' offices in Nairobi. The study used stratified sampling. Sample of responding staff was drawn from 159 top and middle level managers from the staff working in the banks' head offices in Nairobi. The study used stratified random sampling. The study used a sample of 30% of the entire population which was selected from within each group in proportions that each group contributes to the study population. This study used primary data collected using questionnaires. Data was analysed using SPSS and Microsoft excel. SPSS was used to produce descriptive statistics such as means, standard deviation, percentages and frequencies. Results were presented in form of tables, pie charts and graphs. The qualitative data was analyzed using content analysis and presented in prose form. Both quantitative and qualitative data was compiled to generate the final project report.

4.0 RESULTS AND DISCUSSIONS

4.1 General Information

4.1.1 Response Rate

Response rate involves the computation of the response rate from the questionnaire returned from the respondents. The study sampled 48 respondents from the target population to collect

data with regard to the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya. Out of 48 questionnaires distributed 37 respondents completely filled in and returned the questionnaires which accounted for 77.1% response rate. The good response rate was reached due to the adoption of the data collection method of constant follow up with the respondents by the researcher. The response rate demonstrates a willingness of the respondents to participate in the study on the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

4.1.2 Distribution of the Respondents by Gender

Table 1: Gender of the Respondents

Gender	Frequency	Percent
Male	23	62
Female	14	38
Total	37	100

The respondents sampled comprised male and female staff of the commercial banks in Kenya. They were to indicate their gender by ticking on the spaces provided in the questionnaire. Table 1 shows the distribution of the respondents by gender.

Accordingly, 62% of the respondents were males while 38% of them were females. The findings show that the institution studied has both male and female members; however the majority of them are males. The findings imply that the views expressed in this findings are gender sensitive and can be taken as representative of the opinions of both genders as regards to the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

4.1.3 Response Rate Based on the Respondents' Departments

Table 2: Respondents' Departments

Department	Frequency	Percentage
Human resource	7	19.0
Finance	16	42.9
Procurement	7	19.0
Operations	5	14.3
Marketing	2	4.8
Total	37	100.0

Capital requirements and implementation of Basel III decisions affect the various aspects of performance of the organizations across various departments. It was therefore important to ensure that questionnaires were distributed and returned from various departments within the selected commercial banks. This was to ensure that the all areas influenced by Basel III are captured in the study. The results are as depicted in Table 2.

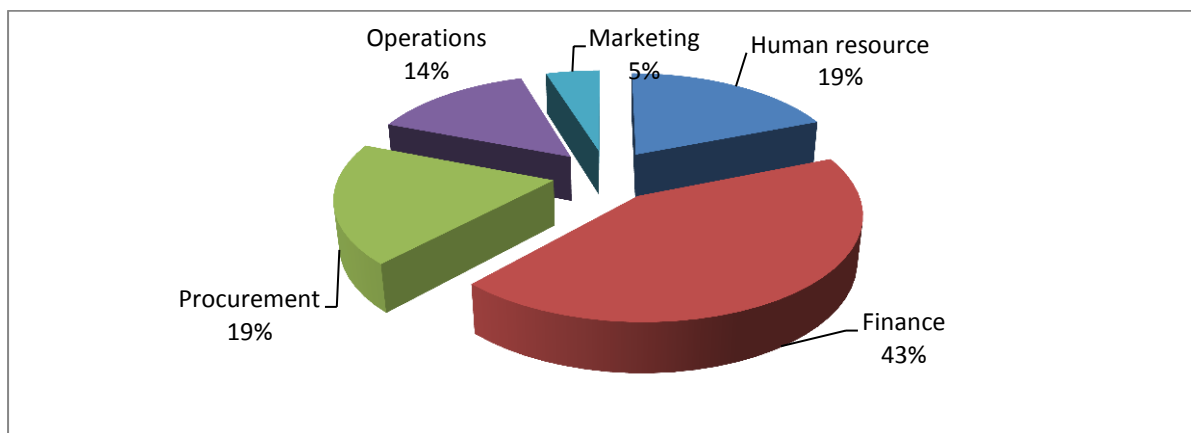


Figure 1: Respondents' Departments

From the results shown in table 2 and figure 1, 42.9% of the respondents were working in the finance departments, 19.0% of them were working in the human resource departments, 19.0% worked in procurement department, and 14.3% worked in the operations department, while 4.8% worked in marketing departments. This implies that all departments that were targeted by the study were involved and that the findings are not biased hence representative of the various departments' views on effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

4.1.4 Respondents Managerial Positions

Table 3: Respondents Designations

Designations	Frequency	Percentage
Heads of department	4	10.3
Assistant heads of department	13	34.5
Supervisors	13	34.5
General staffs	8	20.7
Total	37	100.0

The study targeted to collect data from the management staffs. As such the respondents were likely to include managers, assistant managers, supervisors and general staffs. This was relevant to assess the distribution of the respondents across the management levels since they are part and parcel in the process of determining the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

The study findings in table 3 show that all the respondents occupy positions concerned with implementation of decisions like Basel III therefore they are aware of the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya. As such, 34.5% of the respondents indicated that they were assistant heads of department (assistant managers), another 34.5% of them were supervisors, 20.7% of them indicated that they were general staffs, while 10.3% of the respondents comprised of heads of departments (managers). These findings show that the respondents that participated in the study were

mainly those involved in the implementation of Basel III requirements that affect the capital adequacy requirement in commercial banks in Kenya.

4.1.5 Distribution of Respondents by Working Experience in the Banking Industry

Table 4: Respondents’ Duration of Work in the Commercial Banks in Kenya

Duration	Frequency	Percentage
0-5 yrs	7	19.0
5-10 yrs	11	31.0
10-15	19	50.0
Over 15 yrs	0	0.0
Total	37	100.0

The respondents were required to indicate the length of time they had worked in commercial banks in Kenya. The length of service/working in an organization determines the extent to which one is aware of the issues sought by the study. The results are as depicted in Table 4.

From the respondents’ duration of work in the commercial banks demonstrated in Table 4, 50.0% of them indicated that they had worked in the commercial banks for 10 to 15 years, 31.0% of them had been working in the commercial banks for 5 to 10 years, while 19.0% had worked in the commercial banks for 0 to 5 years. For that reason, majority of the respondents had enough experience on the effects of Basel III framework on capital adequacy requirement in commercial banks in Kenya.

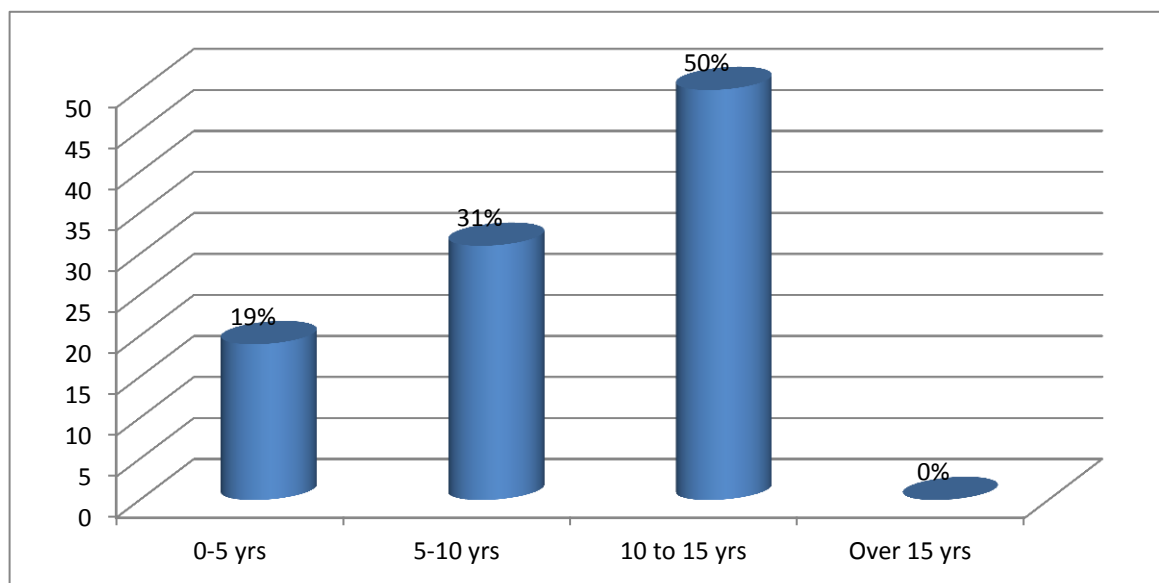


Figure 2: Working Experience in the Banking Industry

4.1.6 Highest Formal Qualification

Table 5: Level of Education

Level of Education	Frequency	Percent
Undergraduate	15	40.5
Post graduate level	19	50.0
Certificate/Diploma	4	9.5
Total	37	100.0

The respondents were asked to indicate their level of education. The target population comprised of people in different responsibilities and qualification requirements hence different academic qualifications. This difference might contribute to differences in the responses given by the respondents. The study therefore sought to investigate the education level achieved by the respondents.

The outcome depicted in table 5 show that majority of the respondents had at least an undergraduate degree and hence understood the information sought by this study, that is, 40.5% of the respondents had acquired a undergraduate degrees level of education, 50.0% of the respondents indicated that they had acquired a post graduate level of education, while 9.5% of the respondents indicated that they had acquired other levels of education such as ICPAK and Higher Diplomas. These outcomes mean that majority of the respondents had at least an undergraduate degree and hence understood the information sought by this study.

4.2 Descriptive Statistics

The objective of the study was to establish the importance of capital adequacy requirement. In this regard the respondents were required to indicate the extent to which capital adequacy requirement is perceived to be important in commercial banks in Kenya.

From table 6, 53.2% of the respondents indicated that capital adequacy requirement is perceived to be important in commercial banks to a great extent, 30.1% of them indicated that capital adequacy requirement is perceived to be important in commercial banks to a very great extent, 13.0% of the respondents indicated to a moderate extent, while 3.7% of the respondents indicated that capital adequacy requirement is perceived to be important in commercial banks to a little extent.

Table 6: Extent to which Capital Adequacy Requirement is Important to Banks

Extent	Frequency	Percent
To a very great extent	11	30.1
To a great extent	20	53.2
To a moderate extent	5	13
To a little extent	1	3.7
Total	37	100

In addition the respondents were required to indicate the extent to which various aspects of Basel III regulations affect the capital requirement of the commercial banks in Kenya. The results are as depicted in Table 7.

Table 7: Extent to which Basel III Regulations affect Banks' Capital Requirement

Aspects of Basel III regulations	No extent	Little extent	Moderate Extent	Great extent	Very great extent	Mean	Std. Dev.
Credit Risk Management	2.1	16.7	10.4	60.4	8.3	3.6250	1.0022
Balance Sheet Structure	4.1	26.3	18.1	19.2	32.3	3.4612	1.2633
Deposit Insurance	27.1	37.5	6.3	14.6	14.6	3.2083	1.1842
Financial Stability	2.1	27.1	16.7	10.4	43.8	3.6667	1.3421
Reduced Vulnerability to Liquidity Shocks	29.2	43.8	8.3	8.3	10.4	3.5428	1.5152

From the study majority of the respondents indicated that financial stability affects the capital requirement of the commercial banks in Kenya to a great extent as shown by a mean score of 3.6667, credit risk management affects the capital requirement of the commercial banks in Kenya to a great extent as shown by a mean score of 3.6250 and reduced vulnerability to liquidity shocks affects the capital requirement of the commercial banks in Kenya to a great extent as shown by a mean score of 3.5428 while balance sheet structure and deposit insurance affect the capital requirement of the commercial banks in Kenya to moderate extents as shown by mean scores of 3.4612 and 3.2083 respectively.

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

The objective of the study was to assess the importance of capital adequacy regulations in commercial banks in Kenya. Capital is often considered as a cushion that helps banks absorb their losses and thus avoid failure in the long run. The study found that capital adequacy requirement is perceived to be important in commercial banks to a great extent, where financial stability, credit risk management and reduced vulnerability to liquidity shocks were found to affect the capital requirement of the commercial banks in Kenya to great extents while balance sheet structure and deposit insurance affect the capital requirement of the commercial banks in Kenya to moderate extents. Additionally, the respondents added that Basel III increases capital requirements for counterparty credit risk arising from derivatives, repurchase agreements and securities financing activities. As such, the capital conversion buffer ensures that banks absorb losses without breaching the minimum capital requirement, and are able to carry on business even in a downturn without deleveraging.

5.2 Conclusions

The study concludes that capital adequacy requirement is perceived to be important in commercial banks. In this regard, capital adequacy requirement is perceived to be important in commercial banks. The study thus deduces that financial stability, credit risk management, reduced vulnerability to liquidity shocks balance sheet structure and deposit insurance affect the capital requirement of the commercial banks in Kenya. In addition, the study concluded

that Basel III increases capital requirements for counterparty credit risk arising from derivatives, repurchase agreements and securities financing activities. As such, the capital conversion buffer ensures that banks absorb losses without breaching the minimum capital requirement, and are able to carry on business even in a downturn without deleveraging.

5.3 Recommendations

Among the benefits of Basel II implementation, the allocation of bank capital is better matched to specific bank risks, resulting in more efficient pricing and allocation of funds. The goals of Basel III are strengthening capital regulations with the goal of promoting a more resilient banking sector; and improving the banking sector's ability to take up shocks resulting from financial and economic stress. Accordingly, the study recommends that banks should ensure a flexible Basel III management expertise that delivers speed, accuracy, and performance to deliver competitive advantage. And those banks that implement the optimal solution will not only have an ideal platform for delivering Basel III, they will also have a solid platform for their future commercial development. A key success factor in implementing Basel II and furthering risk management was gaining buy-in and support at the highest levels of banking organizations, including not only various levels of management, but the board as well. Such an integrated program will coordinate all Basel III initiatives enterprise-wide in the banks and help ensure that major work streams in risk management solution sets and projects fully address Basel III implementation requirements.

5.4 Areas for Further Research

Basel III framework is founded on strengthening the banking industry through the three key principles of capital adequacy, leverage ratio and liquidity requirements. This study has only analyzed the impact of capital adequacy. Therefore, further research could be done on the Impact of leverage ratios in the commercial banking industry in Kenya as Basel III requires banks to maintain a leverage ratio in excess of 3%.

Further research can also be done on the impact of liquidity requirements on the performance of commercial banks in Kenya since Basel III also introduced two essential liquidity ratios. The liquidity Coverage Ratio is guarantee that a bank holds sufficient high-quality liquid assets to cover up for total net cash outflows for over 30 days. Similarly, the Net Stable Funding Ratio necessitate that the available amount of stable funding should be more than the requisite amount of stable funding for more than one-year of pro-longed stress.

REFERENCES

- Abiola, I. &Olaisi, A. (2014). The Impact of Credit Risk Management on the Commercial Banks Performance in Nigeria, *International Journal of Management and Sustainability*, 3(5): 295-306
- Ag'enor, P.-R., and L. Pereira da Silva. (2010). *Reforming International Standards for Bank Capital Requirements: A Perspective from the Developing World*. In *International Banking in the New Era: Post-Crisis Challenges and Opportunities*, ed. S. Kimand M. D. McKenzie, 191–254. Emerald (Bingley).

- Ashcraft, A., & Schuermann, T., (2008). *Understanding the securitization of subprime mortgage credit*, Federal Reserve Bank New York, Staff Report No. 318.
- Balin, B. J. (2010). The impact of the global economic crisis on sovereign wealth funds, *Asian-Pacific Economic Literature* 24 (1): 1-8.
- Basel Committee on Banking Supervision (2010a). *Basel III: A global regulatory framework for more resilient banks and banking systems*. Basel, Switzerland: Bank for International Settlements.
- Basel Committee on Banking Supervision (2010b). *Basel III: International framework for liquidity risk measurement, standards and monitoring*. Basel, Switzerland: Bank for International Settlements.
- Basel Committee on Banking Supervision (2010c). *Results of the Comprehensive Quantitative Impact Study*. Basel, Switzerland: Bank for International Settlements.
- Bean, C. (2009). *The great moderation, the great panic and the great contraction*, Transcript of the Schumpeter Lecture at the Annual Congress of the European Economic Association, Barcelona, 25 August.
- Berger, et. al. (2008). Bank Competition and Financial Stability, *J Financial Serv* 45, pp99-115
- Botoe, C. (2012). *The Impact of Liquidity on Profitability of Commercial Banks in Liberia*, Unpublished Thesis, University of Nairobi
- Brunnermeier, M. K. (2009). Deciphering the 2007–08 liquidity and credit crunch, *Journal of Economic Perspectives* 23(1): 77-100.
- Calice, P. (2010). *A Preliminary Assessment of the Implications of Financial Regulatory Reform for Africa*, Policy Brief No 3/2010, African Development Bank.
- Casu, B. & Girardone, C. (2010). *An Analysis of the Relevance of Off-Balance Sheet Items in Explaining Productivity Change in European Banking*, The Reading University
- Central Bank of Kenya (2010). *Bank Supervisor Annual Report*. Various Issues.
- Central Bank of Kenya, (2013). *Joint Annual Report by Financial Sector Regulators, June 2013; Kenya's Financial Sector Stability Report. 2011 pg35-39*
- Commission of the European Communities (2004). *Review of capital requirements for banks and investment firms — Commission services, Third Consultation Paper, feedback on responses*, http://www.europa.eu.int/comm/internal_market/regcapital/docs/cp3/200403-feedback/feedbackdoc_en.pdf.
- Cooper, D. R., and Schilndler, P.S. (2006). *Business Research Methods*, (9th ed). New York: McGraw Hill/Iruib

- Damar,H., Meh, A. &Terajima, Y. (2010).*Leverage, Balance Sheet Size and Wholesale FundingBank of Canada*, Working Paper 39
- Dewatripont,M.,& Jean,T. (1993).*The Prudential Regulation of Banks*, MIT Press, Cambridge, MA.
- Hamada, M. (2011).*Market Discipline by Depositors: Impact of Deposit Insurance on the Indonesian Banking Sector*, IDE Discussion Paper No.292
- Hosna, A., Manzura, B. &Juanjuan, S. (2009).*Credit Risk Management and Profitability in Commercial Banks in Sweden*, University of Gothenburg, Sweden
- Institute of International Finance (2010).*Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework*, IIF Net Cumulative Impact Study
- International Monetary Fund (2010).*Global Financial Stability Report*, October.
- Kamau, A., Karingi, S., Ndung'u, N., & Mwaura, S. (2004). Capital Requirements and Bank Behavior in Kenya: Empirical Evidence KIPPRA Discussion Paper No. 36
- Kapan, T. &Minoiu, C. (2013).*Balance Sheet Strength and Bank Lending During the Global Financial Crisis*,IMF Working Paper,13/102
- Kimani, N. (2013).*The Empirical Analysis of the Commercial Banks' Efficiency and Stock Returns in Kenya*, Unpublished Thesis, University of Nairobi
- Koka, D. (2012).*The Relationship between the Government Bond Issues and Economic Growth in Kenya*, Unpublished Thesis, University of Nairobi
- Kothari, C. R. (2004). *Research Methodology Methods and Techniques (2nd ed.)*. New Delhi, New Age International.
- Lukonga, I. & Kay, C. (2010). *The Cross Border Expansion of African LCFIs): Implications for Regional Financial Stability and Regulatory Reform*, Research Paper, International Monetary Fund.
- Majnoni, G. & Powell, A. (2011). Reforming Bank Capital Requirements: Implications of Basel II for Latin American Countries”, *Economia*, Spring, pp105-149.
- Minh, D. (2014). *Analysing bank employees' knowledge of Deposit Insurance of Vietnam to ensure its effectiveness: The case Asia Commercial Joint-Stock Bank Vietnam*, Lapland University
- Mishkin, F. S. (2008).*On Leveraged Losses: Lessons from the Mortgage Meltdown*, Speech delivered at the U.S. Monetary Policy

- Moreno, R. (2011). *Policymaking from a macro-prudential perspective in emerging market economies*, BIS Working Papers No 336, Bank for International Settlements, Basel.
- Mugenda, O.M., & Mugenda A.G. (2003). *Quantitative and Qualitative Approaches (2nd ed.)*. Nairobi: Acts Press
- Muriithi, M. (2013). *The Causes of Non-Performing Loans in Commercial Banks in Kenya*, Unpublished Thesis, University of Nairobi
- Mutesi, J. (2011). *Information Sharing, Risk Management And Financial Performance Of Commercial Banks In Uganda*, Unpublished Thesis, Makerere University, Uganda
- Mwangi, G. (2012). *The Effect of Credit Risk Management on the Financial Performance of Commercial Banks in Kenya*, Unpublished Thesis, University of Nairobi
- Owino, M. (2013). *The Effect of the Lending Policies on the Levels of Non-Performing Loans (NPLS) of Commercial Banks in Kenya*, Unpublished Thesis, University of Nairobi
- Raddatz, C. (2010). *When the Rivers Run Dry: Liquidity and the Use of Wholesale Funds in the Transmission of the U.S. Subprime Crisis*. The World Bank Development Research Group, Policy Research Working Paper 5203
- Reinhart, C.M., & Rogoff, K.S. (2010). Growth in a time of debt, *American Economic Review* 100 (2): 573-78.
- Taylor, J., (2011). *Origins and policy implications of the crisis*, in Roger B. Porter, Robert R. Glauber and Thomas J. Healey (Eds.) *New Directions in Financial Services Regulation*, MIT Press, Boston, MA.
- Vodová, P. (2013). *Determinants Which Affect Liquid Asset Ratio of Czech And Slovak Commercial Banks*, Silesian University in Opava