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## CHALLENGES FACING COMMERCIAL BANKS IN THE IMPLEMENTATION OF CAPITAL ADEQUACY REQUIREMENT IN BASEL III FRAMEWORK

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### Abstract

**Purpose:** The purpose of the study was to identify challenges facing commercial banks in the implementation of capital adequacy requirement in Basel III framework.

**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 analyze qualitative data.

**Results:** The study concludes that the implementation of Basel III requirement has been faced by various challenges like growth barrier, regulatory constraints, risk and finance management culture and additional capital challenges. In addition, the study concluded that commercial banks face challenges in deciding how best to implement a solution that will allow them to comply with Basel III, how to operate the systems and processes for improved operational effectiveness, and how to understand and ultimately reduce their capital requirements.

**Unique contribution to theory, practice and policy:** The study recommends that Banks should manage their risks more closely and avoid a build-up of unintended risk, reducing the opportunities for regulatory capital arbitrage. This would go a long way in eliminating growth barriers, regulatory constraints, capital adequacy requirement, risk and finance management culture and additional capital challenges.

**Keywords:** *challenges, commercial bank, capital adequacy requirement, Basel III framework*

## 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**

To identify challenges facing commercial banks in the implementation of capital adequacy requirement in Basel III framework.

## **2.0 LITERATURE REVIEW**

### **2.1 Empirical Review**

Recent economic crises have revealed the importance of bank regulations to reduce the high risk attributed to imbalances in banks' balance sheets. The key regulatory role of banking regulation is regulation on capital. Nonetheless, excessive regulations may have adverse effects. Safety of depositors' fund remains the major concern of bank regulators. It is in this respect the capital adequacy becomes relevant and important. Sentero (2013) sought to find out the effect of capital adequacy requirements on the efficiency of commercial banks in Kenya. This study used a descriptive research design. The population of interest in the study consisted of all 43 commercial banks operating in Kenya and had been in existence in the last five years, licensed and registered under the Banking Act Cap.488. To measure economic efficiency the study adopted the Data Envelopment Analysis (DEA) techniques. The value of the F statistic indicated that the overall regression model was significant implying that there is a significant relationship between the predictor variables of capital adequacy ratio and the efficiency of commercial banks in Kenya.

The study recommends that central bank should be keen on commercial banks capital adequacy ratio by laying down financial regulations on liquidity since the goal of financial regulation is to enable banks to improve liquidity and solvency. Stricter regulation may be good for bank stability, but not for bank efficiency, restricting banks may not only lower bank efficiency but also increase the probability of a banking crisis.

Gudmundsson, Ngoka-Kisinguh and Odongo (2013) sought to find out the role of capital requirements on bank competition and stability in Kenya for the period 2000-2011. The study adopted the Lerner index and the Panzar and Rosse H-statistic to measure competition in Kenya's banking industry. Approximations of both the Lerner index and the H statistic showed that competition in the Kenyan banking sector had reduced over the study period. The study approximated the fixed effects of capital requirements on bank competition and stability for the 36 commercial banks using a panel regression model. The panel estimates indicated that there was a significant non-linear effect of core capital on competition. The log of core capital was positive and significant while squared log of core capital was negative and significant which is an implication that an increase in core capital reduces competition up to a

point and then increases competition. Therefore, the advantages of raising capital requirements on competitiveness are achieved after consolidation in the banking sector. Return on equity was used to capture bank performance and stability which showed a positive relationship in support of the evidence that capital regulation improves the performance of banks and financial stability.

Cheserek (2010) examined the determinants of bank failure in Kenya over a period of five years between 2004 and 2009 using capital adequacy. Asset quality and earnings after tax were cited as major predictors of bank failure. The study addressed the determinants of commercial bank failures in the banking industry. Data from 21 commercial banks was obtained and analyzed using SPSS package. Results revealed that Kenya's banking industry looked shaky but are stabilizing. Key ratios like capital adequacy, asset quality and return on assets didn't have a consistent trend and this was worrying. Results also revealed that banks' management did not have clear policies on how to maintain and grow these key ratios. Further, results revealed that bank failure had no significant relationship with earnings after tax, total loans, total equity and return on assets. However, bank failure had a significant relationship with capital adequacy, asset quality and total assets. This explained the reason as to why over the last decade, national and international regulatory bodies, in an attempt to reduce the chance of a bank failure have imposed stricter requirements on capital adequacy and asset quality.

Odinga (2010) carried out a study seeking to find out the relationship between capital adequacy and stability of Commercial Banks of Kenya. All Commercial Banks in Kenya were analysed. Secondary data was used and this was collected from the financial statements for the year ended 31 December 2009. On the face value Kenyan banks are on average well capitalized implying that they have met all the requirements (statutory) as set by the Central Bank of Kenya. However, on closer inspection, tier I commercial banks have a much stronger capital position than tier II and III commercial banks. Not all commercial banks had achieved the minimum core capital of Kshs. 1 billion. With respect to supplementary capital, majority of Banks were found to have supplementary capital reserves. However, very few were found to have no supplementary capital.

Waithaka (2013) sought to investigate the effect of Basel II requirement on Kenyan commercial banks' lending. A descriptive research design was adopted for this study. The populations for this research are the 43 listed Commercial Banks in Kenya analyzed for a period from 2009-2012. The study findings revealed that commercial banks risk weighted asset had increased by 79% over the years indicating a similar growth in bank's assets. To meet the asset growth, core capital had also increased by 88% with bank's undertaking rights issue between 2011 and 2012 in order to meet the new capital requirements with Basel II. Total loans and advances with a risk weight of 100% also increased by 77% from the year 2009 to 2012. The CAMEL rating also showed continuous growth in all the main ratios over the years under review. The study concluded that Basel II requirement has an impact on banks' capital requirement and asset growth with growth in core capital and risk weighted assets clearly seen over the years. The study also concluded that Basel II requirement has an impact on banks' lending. None of the commercial banks so far was in breach of the minimum capital requirements of 8% as additional capital has being raised through rights issues.

Wachiuri (2012) sought to establish the effect of capital adequacy requirements on credit creation by commercial banks in Kenya. Data for a period of 11 years from 2001 to 2011 was studied where an econometric model was used. For this purpose, data from 43 commercial banks in Kenya was extracted from CBK annual bank supervision reports. The study revealed that capital adequacy requirements introduced by Basel 1 had a negative impact on credit creation by banks in Kenya. This was evident especially in 2000 when the requirements were introduced in Kenya and in 2009 when further development of minimum statutory capital requirements from Kshs. 250 million to 350 million (all the way to 1 billion by December 2012) was introduced. The trend in credit created had been changing direction every four years a fact that can be accredited to shocks originating from the continuous development of capital adequacy requirements by the Central Bank of Kenya. Results showed that the volume of existing bank capital may act as binding constraint on liquidity and credit creation. However, there could have been other factors accounting for variations in credit created trends other than the capital adequacy requirements as experienced in 2005, a fact that could be accredited to other factors such as high interest rate and reduced demand for credit. The study recommended that policy makers should certain that commercial banks have adequate capital to strengthen confidence of depositors, but capital adequacy requirements should not be very retaliatory as to restrain bank activities and the performance of the overall economy.

Bett (2012) examined the extent to which current developments in accounting regulations have been embraced by non-listed firms in the Kenya financial sector and their impacts in finding solutions to major problems of corporate financing among small and medium enterprises. The study used a descriptive research which involved acquisition of information about the level of compliance with mandatory and voluntary aspects of accounting regulations from a sample of 93 non-listed firms in different subsectors; Banking, Insurances, SACCOs and Stock brokerage firms among others. Majority of the firms were more compliant with mandatory aspects of accounting regulations like accounting disclosure requirements of the respective Government Regulatory Agencies, Companies Act and IAS1. However, the level of compliance with voluntary accounting regulations tested like IAS 39 on valuation and disclosures of financial assets and liabilities and IFRS 7 on disclosures requirements for firms' exposure to risk was generally very low. This can be explained by the fact that firms not listed in NSE are generally not motivated to achieve high levels of compliance with accounting pronouncements of IFRSs and IASs mainly because they see these regulations as a requirement for the big public firms.

The study recommended that ICPAK should take the challenge of acquainting Small and Medium sized Entities with information on the strategic benefits on achieving high levels of compliances to entire accounting regulatory framework irrespective of the firm size. This would help mitigate on the risk suffered from the perceptions of information asymmetry and other unfavourable consequences associated with low quality accounting information such as limited access to external finance.

Kinuthia (2013) conducted a study seeking to establish the relationship between financial risk management systems and financial performance of micro finance institutions in Kenya. The research adopted a survey research method as well as causal research design to show the relationship between financial performance and financial risk management systems. The study targeted 47 registered MFIs. Both primary and secondary data sources were used in this study. A likert scale questionnaire was used to collect primary data. Statistical Package for



Social Sciences (SPSS version 17.0) was used to aid in the entry, coding and analysis of the data obtained through the questionnaires. A regression analysis was used to determine the relationship between dependent and independent variables. From the findings of the study Mil's-should institutionalize a risk management process. Management of micro finance institutions has in many instances treated internal control and internal audits as marginal to operations, prioritizing only on their ability to uncover past mistakes and wrongdoing. The risk management approach thus suggests a more integrated approach to internal control, placing a greater emphasis on its ability to proactively prevent loss and encourage efficiency. For assured efficiency, MFIs must incorporate the concepts of risk management into their organizational culture and environment. In addition, the board and management should play an active role in a bid to rise above negative perceptions of internal control and internal audit. This can be done by putting emphasis to the employees about the positive results that can be achieved from their effective application. Similarly, the management can create a positive control environment in which all employees have a role in improving the internal control system.

Kasiva (2012) conducted a study seeking to establish the impact of risk-based audit on financial performance in commercial banks in Kenya. This study adopted Correlation research design since it describes the specific phenomenon in its current trends, current events and linkages between different factors at the current time. The target population for the study comprised of 44 respondents who were finance officers, internal auditors, the credit officers, relationship officers/managers and accountants at commercial banks in Kenya. Primary data collected using questionnaires was used in this study. Data analysis was done using descriptive statistics such as mean, standard deviation and frequency distribution. Data presentation was done by the use of pie charts and tables for ease of understanding and interpretation. From the findings, the study concluded that risk based auditing through risk assessment, risk management, annual risk based planning, internal auditing standards and internal auditing staffing should be improved. This would make it easy for the firm to detect risks on time and focusing on high risk areas leading to increased transparency and accountability. Proper planning enhances accuracy, timeliness, efficiency, completeness, convenience and clarity. Credible audit reports, auditor independence to identify and rectify audit errors, effective implementation of audit recommendations, financial management and compliance with accepted audit standards, effective internal audit staff and independent audit committee influence financial performance in commercial banks. From the findings, the study recommended that management in commercial banks in Kenya should adopt effective risk based audit practices such as risk assessment, risk management, annual risk based planning, internal auditing standards and internal auditing staffing to enhance effective and efficient financial performance.

Muriithi (2013) carried out a study to determine the causes of Non-Performing loans in Commercial Banks, in Kenya. The study adopted the descriptive design and applied both multiple regression models on secondary data to determine the relationship between causes of Non-Performing Loans in Commercial Banks in Kenya. The study used secondary data for the period 2008-2012. Inflation, interest rates and growth in loans were used as independent variables while non-performing loan was used as the dependent variable. The population of this study comprised of 43 commercial banks in Kenya and data was analysed using SPSS.

Findings revealed that inflation rate, real interest rate and growth rate in loans were the causes of non-performing loans in Kenya.

The study recommends that in order for the profitability of commercial banks in Kenya to improve, the Government should adopt measures that will control the real interest rate in Kenya. Lower interest rates would be more appropriate in order to reduce the level of non-performing loans in Kenya since they are negatively correlated with ratio of non-performing loans. The study also recommends that there is also need for the Government to control the inflation rate in Kenya as there is some evidence to suggest that low inflation rate will lead to better performance of loans in Kenya. The study further recommends that there is need for the commercial banks to adopt policies that will control the amount of loans they have.

Wanjiku (2010) sought to find out how Suntra Investment Bank (SIB) had managed growth. SIB endured a very tumultuous time in the capital markets during which several stock brokerage firms collapsed, were put under receivership or were acquired by other companies. The study sought to address two main objectives which were to determine the approaches adopted by SIB to manage growth and to determine how SIB has managed the organisation culture through its growth. Both primary data and secondary data were used in this study. Primary data was collected through personal interviews while secondary data was collected from journals, websites and in-house publications. A content analysis was then done on the data obtained and the findings were presented as brief discussions on the growth of the company, the approaches adopted to manage both growth and the organisation culture and on what informed those approaches.

Results revealed that SIB had gone through a full organization life cycle marked by a period of slow growth which lasted about 12 years between 1990 and 2002, rapid growth was experienced between 2003 and 2006 when the company reached maturity and there was a decline in growth in period between 2007 and 2008. Results also revealed that growth for the company was highly dependent on the performance of the economy and the change in government at the end of 2002 was of great benefit to the company due to increased investor confidence which saw to an increase in investors in the capital market and there by positive returns in the company too. Further, results revealed that SIB had adopted various approaches to manage growth more so during the rapid growth phase and the decline stage. These approaches were applied to different extents with the key ones being strategic planning, financial control, and human resource management, enhancements of the management information systems and management of the organisation culture. On the other hand, standardization marketing and lobbying the government were used to a lower extent. The study also established that SIB had experienced a big challenge in overcoming the organizational culture barrier. The company overcame this challenge by having culture change as an objective in the strategic plan and other strategies such as succession planning and induction of all new employees on the mission vision and core values of the company. Finally, the study concluded that it is very important that companies adopt various approaches to manage growth and to keep evaluating the approaches in light of the changes in the business environment.

### **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 inform 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
<b>Total</b>	<b>37</b>	<b>100</b>

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.

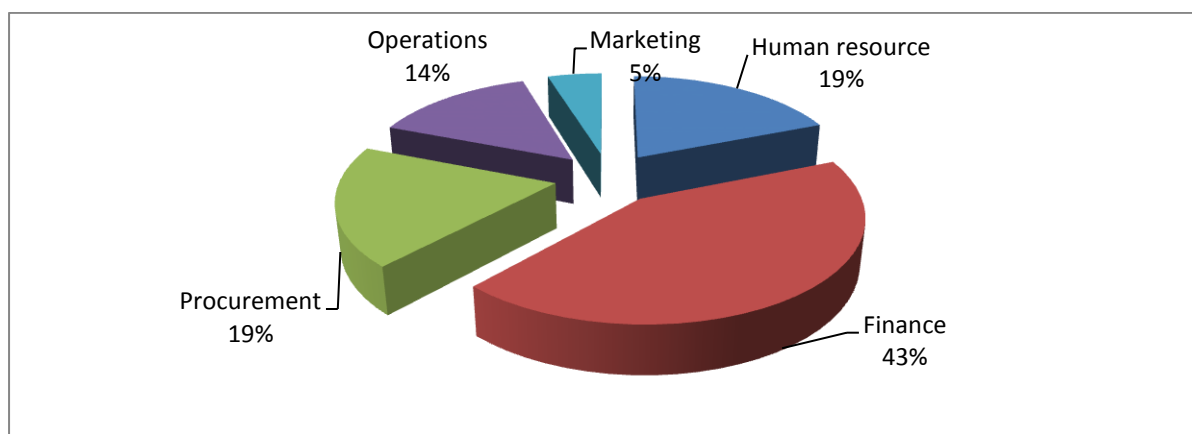
Accordingly, 62% of the respondents were males while 38% of them were females. The findings show that the institution studied has both male and female members; however the majority of them are males. The findings imply that the views expressed in this findings are gender sensitive and can be taken as 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
<b>Total</b>	<b>37</b>	<b>100.0</b>

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**

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

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.

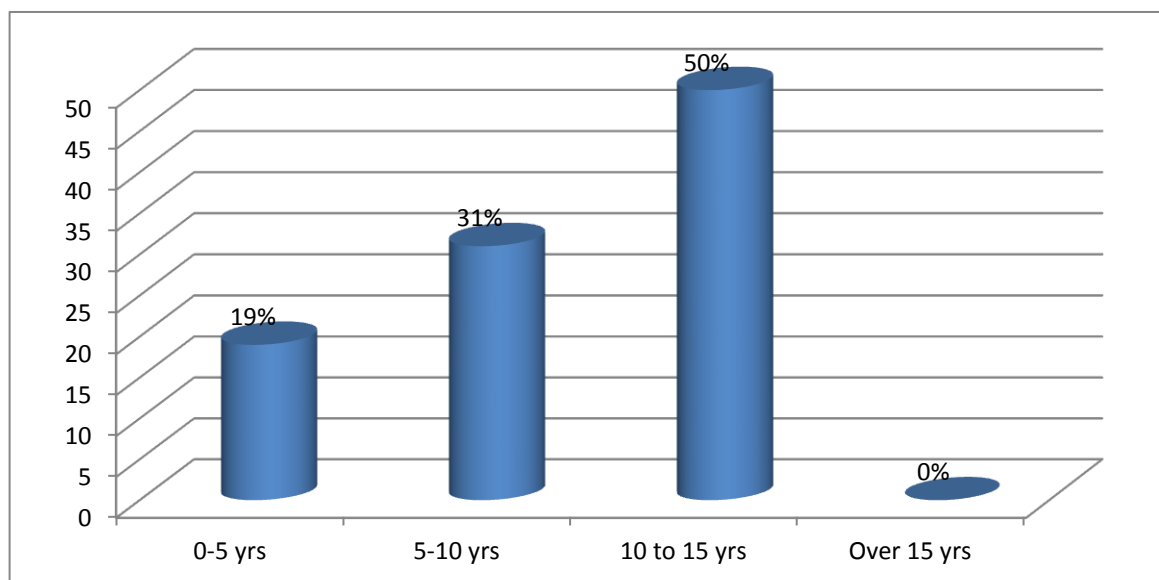
#### 4.1.5 Distribution of Respondents by Working Experience in the Banking Industry

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

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

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
<b>Total</b>	<b>37</b>	<b>100.0</b>

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 seek to investigate the challenges commercial banks are facing in the implementation of capital adequacy requirement. Accordingly, the respondents were required to indicate the extent their banks experience various challenges in the implementation of capital adequacy requirement.

**Table 6: Challenges Faced in the Implementation of Capital Adequacy Requirement**

Challenges	No extent	Little extent	Moderate extent	Large extent	Very large extent	Mean	Stddev
Regulatory constraints	29.2	43.8	8.3	8.3	10.4	3.5428	1.5152
Additional capital	18.8	10.4	35.4	35.4	33.3	3.2972	1.6102
Risk and finance management culture	0	12.5	14.6	25	29.2	3.3322	1.4923
Growth barrier	0	4.2	45.8	37.5	12.5	3.5845	0.7725 1

Results in table 6 reveal that majority of the respondents reiterated that their banks experienced growth barrier and regulatory constraints to great extents as shown by mean scores of 3.5845 and 3.5428 respectively, while they indicated that, in the implementation of capital adequacy requirement, commercial banks experience risk and finance management culture and additional capital challenges to moderate extents as shown by mean scores of 3.3322 and 3.2972 respectively.

## 5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Discussion

The study found out that commercial banks experienced growth barrier and regulatory constraints to great extents, while in the implementation of capital adequacy requirement, commercial banks experience risk and finance management culture and additional capital challenges to moderate extents. Further, the respondents said that other challenges for commercial banks and financial institutions is deciding how best to implement a solution that will allow them to comply with Basel III include; how to operate the systems and processes for improved operational effectiveness, and how to understand and ultimately reduce their capital requirements. The weaknesses in applying consistent, robust risk asset definitions globally have led to distortions of true capital adequacy positions.

These findings agree with those of (Agoraki et al, 2011) who argued that commercial banks are faced by several challenges in the implementation of capital adequacy requirement. The key challenge for Kenyan banks and financial institutions are regulatory constraints and limitations as CBK does not have enough staff and systems to adequately supervise the implementation of the new regulations.

### 5.2 Conclusions

The study concludes that the implementation of Basel III requirement has been faced by various challenges like growth barrier, regulatory constraints, risk and finance management culture and additional capital challenges. In addition, the study concluded that commercial banks face challenges in deciding how best to implement a solution that will allow them to comply with Basel III, how to operate the systems and processes for improved operational effectiveness, and how to understand and ultimately reduce their capital requirements.

### 5.3 Recommendations

The implementation of Basel II has been a key driver for the refinement and maturation of risk management frameworks in financial institutions worldwide. However, the arrival of Basel III signals an unprecedented rising of the bar for risk management practices to support the comprehensive nature of the new requirements. The critical risk management challenges posed by the need to implement Basel III require the support and engagement of multiple competencies across the organization to address impacts on people, process and technology. The study therefore recommends that Banks should manage their risks more closely and avoid a build-up of unintended risk, reducing the opportunities for regulatory capital arbitrage. This would go a long way in eliminating growth barriers, regulatory constraints, capital adequacy requirement, risk and finance management culture and additional capital challenges.

### 5.4 Suggestion 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.

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