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## Factors Influencing Financial Performance of Commercial Banks in Kenya- A Case Study of National Bank of Kenya Coast Region

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### **Abstract:**

*The financial performance of commercial banks in Kenya is very important as it helps it to know the bank is achieving its set objectives and also its profit margin, however banks faces several challenges as they strive to achieve the performance such include; competition from other organizations, government policies, increased provisions through non- performing assets and also increased interest costs. The main objective of this study was to identify, analyze and understand the factors that influence the financial performance of all commercial banks in Kenya. It also aims at revealing the indicators of financial performance, reasons, criteria and systems of determining financial performance of commercial Banks in Kenya. The specific objectives are capital adequacy and liquidity, credit risk, interest rate and inflation rates and their influence on financial performance of commercial banks in Kenya. The research design was descriptive in nature. The target population was 1,700 staff of National Bank of Kenya in Coast region. The sample size was 51. Market power theory, efficiency structure theory and portfolio theory have been used to explain the theoretical framework. A pilot study was carried out to refine the instrument. The quality and consistency of the survey was further assessed using Cronbach's alpha. Data analysis will be performed on a computer using Statistical Package for Social Science (SPSS Version 22) for Windows. Analysis was done using frequency counts, percentages, means and standard deviation, regression, correlation and the information generated will be presented in form of graphs, charts and tables. From the findings majority of respondents have worked for between 3-6 years, on education level, majority of the respondents have a bachelor's degree and work as head of departments in the bank. Change in capital requirement affects financial performance of commercial banks because fund that were to be lend out to earn interest income are put up as capital thus denying commercial banks revenue. Bad economic times affect how customers repay their credit facilities thus causing loan defaulter. When inflation is rising, consumer purchasing power is greatly reduced because many people are not able to borrow and invest and eventually repay loans. Charging different interest rate s affects profitability. According to the findings, it was clear that there was a positive correlation between capital adequacy, credit risk, inflation and interest rates shown by a correlation value of 0.370, 0.376, 0.120 and 0.364 respectively. This indicates that independent variable and dependent variable move in the same direction, that is, as one increase the other one also increases. From the finding  $R^2$  has a value of 0.682 meaning that the 46.5 % of the dependent variable can be explained or attributed to combination of the four independent factors investigated in this study. A further 5.3 % of investment decision making is attributed to other factors not investigated here. That Central bank of Kenya should reduce cash ratio requirement from 20% to 5% to enable commercial banks to have more disposable funds to lend to earn interest income thus increase its profitability.*

## **1. Introduction**

### *1.1. Background of Study*

The Banking sector all over the world acts as the life blood of modern trade and economic development and through being a major source of finance to the economy (Ongore & Kusa, 2013). The concept of profitability is very important both for the non-financial institutions as well as financial institutions and commercial banks are considered to be the major constituents of the financial institutions. The success and growth of commercial banks is mainly dependent on the competitive marketing strategy that their marketing department adopts to help them compete with others in the market (Swarnapali, 2014). Over the last decade, it is clear from banking literature that the performance of commercial banks is one research area that has been of main concern to management experts, investors, and economic analysts across the entire world and has a lot of researchers have focused on the factors that influence the performance (Sufian & Chong, 2008). This concern is closely related to the significant impact of the profitability of these commercial on the potential growth of the economy of the country. This has resulted in a lot of changes in the banking environment in terms of operations in order to improve their financial performance (Hussain & Bhatti, 2010).

It is clear from research that commercial banks play a very crucial role in the allocation of economic resource of countries by basically helping to channel funds from depositors to investors in a continuous manner (Ongore & Kusa, 2013). Handley-Schachler, Juleff and Paton (2007) notes that “these commercial banks offer the all-important services of providing deposit and credit facilities for personal and corporate customers, making credit and liquidity available in adverse market conditions, and providing access to the nation’s payments systems”. It is also noted that commercial banks are also the channels used to transmit effective monetary policy of the central bank of the economy thus it is considered that they also share the responsibility of stabilizing economy of their country (Siddiqui & Shoaib, 2011). The soundness of the banking sector in a country is very critical to the health of the country’s economy (Sufian & Chong, 2008). Further agreeing to this statement, Katrodia (2012) argues that the banking sector and the economy of a country are closely related. On the other hand, it is important to note that the soundness of the commercial banks is largely dependent on their financial performance which is normally used to indicate the strengths and the weaknesses of such a commercial bank (Makkar & Singh, 2013). The financial performance of any business organization is normally evaluated by determining their profitability.

Generally, researchers note that the sustainability of a commercial bank is largely determined by its level of profitability. This is due to the fact that these commercial banks must generate the necessary income in order to be able to cover their costs of operations which are incurred as they go about their work (Ongore & Kusa, 2013). It is also noted that it is out of these profits that the shareholders of the banks get their dividends from their investment and this leads to a situation where they are encouraged to invest more in the bank thus ensuring a steady flow of investment funds for the bank and thus securing the future in terms of sustainability of operations (Ongore & Kusa, 2013). It is important to note that business entities normally remain in operation due to the fact that they expect to make profits from their operations; therefore, in case the management confirms that they cannot achieve this goal, the only option that they remain with is to close shop and exit the business in order to avoid a situation of loss making (Ayanda, Christopher & Mudashiru, 2013). Ongore & Kusa (2013) asserted, “Profit is the ultimate goal of commercial banks, thus all the strategies designed and activities performed are meant to realize this grand objective”. They however, clarified that this does not mean that commercial banks or any other business entities are not guided by any other additional goals and objectives and that they are also guided by goals such as social benefits as well as economic benefits.

According to Ayanda (2013) profitability is defined as the “the ability of the business organization to maintain its profit year after year”. Further, according to Podder (2012), the profitability of a commercial bank “is the efficiency of a bank at generating earnings”. Others also further that apart from ensuring that the commercial banks’ operations are sustainable, profitability also has far much wider implications on the economy of the country as a whole. Researchers note that the profitability of any commercial organization normally contributes to the economic development of a country through the fact that the profits can be reinvested back into the business and thus offer additional employment to the citizens of the country and thus increased revenue for the country through taxation (income tax and corporate tax) (Ayanda *et al.* 2013). It is also noted that the profitability of any commercial organization leads to increased wealth of the investors through the higher dividends that are paid which in turn leads to improved quality and standards of living of the people of the country. As it can be seen from the discussion above, the profitability of commercial banks is very critical and therefore, poor financial performance of the banking industry of a country can result in serious negative impacts on the growth and development of a country as well as the wellbeing of the citizens of that country (Ongore & Kusa, 2013).

A lot of researchers in the banking sector and in the academic world have given their attention to the issue of performance of commercial banks due to the fact that the banking industry is a major player in the economic development of a country (Ayele, 2012). These studies have shown that the performance of commercial banks can be expressed or measured in various terms and these include competition, productivity, profitability, efficiency as well as concentration (Macit, 2011). Commercial banks that have better financial performance are considered to have better ability to resist any negative shocks from the external environment and thus be able to contribute to the stability of a country’s financial system (Athanasoglou, Sophocles, & Matthaios, 2013).

The banking sector in Kenya is governed by various Acts such as The Companies Act, the Banking Act, the Central Bank of Kenya Act and various other prudential guidelines that have been issued by the Central Bank of Kenya (CBK) over the years. The banking sector in Kenya was liberalized in 1995 which led to the removal of exchange controls. The CBK is normally responsible for formulating and implementing the monetary policy adopted by the Kenyan government and ensuring there is liquidity, solvency and proper functioning of the financial system in the country. The entity also publishes valuable information related to the banking industry in Kenya and the non-banking financial institutions, as well as information about the interest rates prevalent in the country and other publications and guidelines. The Kenyan commercial banks have come together under an umbrella body referred to as the Kenya Bankers Association (KBA), which serves as a lobby body for the members’ interests and addresses issues affecting the registered commercial banks in the country (CBK, 2013). In Kenya, the performance of commercial banks has been influenced by various factors such as the prevailing economic conditions and the ownership structure. These determinants have influenced the performance in negative as well as positive ways depending on the management skills of the executives of the commercial banks (Ongore & Kusa, 2013).

#### 1.1.1. USA Banking Financial Performance

Commercial banking in the US is an industry in transition. Many believe that commercial banks face their greatest challenges since the Great Depression, including navigating the new regulatory framework imposed by the Dodd-Frank Act and dealing with the remaining repercussions of the global financial crisis. Some argue that the need for more than \$1 trillion of assistance afforded the industry since the fall of 2008 — via programs such as the Troubled Asset Relief Program (TARP) and Quantitative Easing (QE1 and QE2) — is symptomatic of an industry that may require further regulatory intervention to avoid a relapse into financial distress. On

the other hand, 7 of the 15 largest commercial banks in the US posted record-setting revenues in 2010, with 3 of these also earning record profits, leading others to argue that banks are well on their way to recovery and do not require further regulatory support (or interference, depending on your point of view).

This paper examined how banks are responding to the new regulatory mandates and the extent to which they have recovered from the events of 2008-2009. We examine the financial performance, risk, changing revenue and asset mix, prospects for future shareholder value creation and executive compensation of the 15 largest commercial banks in the US from 2001-2010. We focus on these 15 banks because they are most likely to have the resources to respond quickly to the new regulatory framework mandated by the Dodd-Frank Act, and, as dominant players in their industry, also receive a disproportionate amount of regulatory scrutiny. As commercial banking continues adapting to the new environment, early signs of significant change are most likely to be evident in banks of this size and scope.

#### 1.1.2. Islamic Banking Financial Performance in the Middle East

Islamic banking in Middle East started around two decades ago. Since then it has played an important role in financing and contributing to different economics and social sectors in the country in compliance with the principles of Shariah rules in Islamic banking practices. Islamic bank is a financial and social institution whose aims, principles as well as practices must comply with the Islamic Shariah rules and which must avoid the interest in any of its practices (Ahmed, 2004). Islamic banking is growing in number and size all over the globe. According to some estimates Islamic banking has grown at an annual rate of 15% over the past five years. Currently there are over 250 institutions managing assets and client money around US\$400 billion (AME Info, 2005). The growth of these banks is proof of their success.

Even though the Islamic banks are performing well and have good plan for the future, nevertheless these banks are also facing some key challenges domestically as well as globally that reduce their growth potential. Among the challenges are the conflicting situation in the region (e.g. political status in Palestine and other part of Middle East), the economic slowdown which has plagued the country for the past few years, globalization (e.g. abolition of tax barriers, liberalization of commodity and services etc.), increased cash surpluses with limited finance and investment opportunities (IIAB, 2002), public awareness and acceptance, lack of institutions which conduct research and development to in this area, lack of skilled and professional people, and local competition from large numbers of commercial banks that are operating in the country.

Globally Islamic banking faces as well, many challenges such as financial globalization, speculation, the flow of savings abroad, competition from international banks (AME, 2005), lack of inter-bank Islamic money market and Islamic money brokers, investors are unwilling to hold to maturity.

#### 1.1.3. African Banks Financial Performance Uganda

The study seeks to establish the underlying factors responsible for performance of domestic commercial banks in Uganda. The study analyses performance of all licensed domestic and foreign commercial banks independently on average basis. The study found that, management efficiency; asset quality; interest income; capital adequacy and inflation are factors affecting the performance of domestic commercial banks in Uganda (Ayele, 2012). Policy implications emerged for commercial banks' management includes; efficient management; credit risk management; capital adequacy levels; diversification and commercial bank investment. In addition, monetary policy regulations and instruments should not enforce high liquidity and capital adequacy levels. Regulations on non-interest income activities should be put in place to harmonize the impact of diversification on all commercial banks' performance and to avoid exploitation of bank customers.

Uganda commercial banking industry underwent significant restructuring in the early 1990s embarking on banking sector reforms, focusing on improving bank performance, through liberalization and strengthening prudential regulations, (Bategeka & Okumu, 2010). The reforms restructured the banking industry with regard to advances in computer technology, that led to electronic and internet based banking. Consequently, there are changes in internal bank operations; relationships with customers and inter-bank interactions. These improvements caused repercussions on the costs and revenue of commercial banks and ultimately performance differences between domestic and foreign commercial banks. The results of banking sector reforms suggest mixed outcomes. Whereas there was impressive improvement for the banking system as a whole, the performance of foreign commercial banks remained quite steady and even improved while domestic commercial banks suffered massive decline in their profitability and they also accumulated more non-performing loans (Mpuga, 2002). The decline became a source of anxiety as domestic commercial banks are performing relatively poorly compared to foreign commercial banks. There was a need to reveal the causes these differences among commercial banks in Uganda.

#### 1.1.4. Kenya Banks Financial Performance National Bank of Kenya

National Bank was incorporated on 19th June 1968 and officially opened on Thursday November 14th 1968. At the time it was fully owned by the Government. The objective for which it was formed was to help Kenyans get access to credit and control their economy after independence. The Bank is listed on the Nairobi Securities Exchange. In 1994, the Government reduced its shareholding by 32% (40 Million Shares) to members of the public. Again in May 1996, it further reduced its Shareholding by 40 million Shares to the public. The current Shareholding now stands at: National Social Security Fund (NSSF) 48.06%, General Public – 29.44% and Kenya Government 22.5%. In 2003, the bank increased its Share Capital to Ksh9 billion through the creation of 1,200,000,000 non-cumulative preference Shares of Ksh5 each. The current issued and fully paid up share capital is Ksh6.675 billion held by National Social Security Fund (NSSF) 48.06%, General Public – 29.44% and Kenya Government 22.5%.

National Bank is a major player in Kenya's banking industry. It is one of the largest banks in the country giving financial services to all sectors of the economy. The bank will continue to cover the financial landscape and respond positively to the needs of its customers, shareholders and the economy besides offering traditional financial services and products. National Bank has taken a leading role in the issuance and promotion of modern delivery and payment systems. The Bank has also been involved in the stock market playing multiple roles as an arranger, underwriter and placing agent. The Bank is an appointed fiscal agent, registrar and market maker in the secondary market. National Bank operates one subsidiary Company; NatBank Trustee and Investment Services Limited incorporated in Kenya on 21st July 1995 with a Share Capital of Ksh.10 Million.

On 24th May 2013, the bank rebranded and changed its logo and colours from the predominately green to yellow. The new slogan is "Bank on Better." This is a brand promise to customers, shareholders as well as stakeholders (www.nationalbank.co.ke)

### 1.2. Statement of the Problem

Understanding the factors that influence the performance of commercial banks is critical not only to the management of these commercial banks but also to other stakeholders and interest groups such as the country's Central Bank, the government as a whole, the banker's association as well as other financial authorities in the country (Ayele, 2012). Studies carried out to evaluate the determinants of the financial performance of commercial banks have revealed various factors such as the internal bank specific factors, industry specific factors and external macro-economic factors (Sufian and Chong, 2008). It is however important to note that countries differ in terms of the macro-economic conditions, the financial systems as well as the operating environment of these banks (Ongore and Kusa, 2013). This shows that factors that influence performance in one country may not be the same as those in another country (Lipunga, 2014).

A search for literature in this area shows that there are various studies that have been carried out both on the international arena, in the African context as well as locally. Obamuyi (2013) evaluated the determinants of a bank's profitability in a developing economy and focused on the banking industry in Nigeria. The study found that bank specific factors such as efficient management of expenses and increased interest income and macro environment factors such as favorable economic conditions lead to improved profitability of commercial banks. This study did not evaluate the influence of industry specific factors on the performance of the commercial banks and this will be a focus of the current study. Lipunga (2014) also carried out a similar study and focused on the banking industry in Malawi. The results of the study found that the size of the bank, the efficiency of the bank's management and the liquidity of the bank influenced its profitability measured by ROA. This study only focused on internal factors or firm specific factors only and did not consider the influence of external factors such as the GDP or interest rates as will be used in the current study.

Most studies conducted in relation to bank performance focused on sector specific factors which affected the entire banking sector performance. For instance, Comparative Studies of Foreign and local banks in Thailand by Chantapong (2005) and the profitability of European banks: a cross-sectional and dynamic panel analysis by Goddard *et al.* (2004). Also, Ongore & Kusa (2013) studied the effects of various factors in banking sector performance in Kenya. The results of the study showed that board and management decisions influence the performance of commercial banks in Kenya and also that macro-economic factors have insignificant influence on their performance. This study however omitted the effects of industry specific factors on the performance of commercial banks. Literature has not specifically focused on the identifying the specific factors that influence bank performance in developing countries but the available literature shows determinants in all economies (Karasulu, 2001). Macro-economic factors that influence the performance of commercial banks have also not been evaluated in the Kenyan context despite their importance in determining the performance of any industry in the economy. It is clear therefore that in Kenya, no study has been done on the determinants of bank performance using the industry specific factors, the bank specific factors and the macro-economic factors. This is the gap this study will seek to fill.

### 1.3. Objective

This study was guided with general and specific objectives as follows:

#### 1.3.1. General Objective

The general objective of the study was to investigate the factors influencing financial performance of commercial banks in Kenya.

#### 1.3.2. Specific Objectives

1. To examine how capital adequacy influence financial performance of commercial banks in Kenya
2. To establish how credit risk exposure influences financial performance of commercial banks in Kenya
3. To evaluate how Inflation influences financial performance of commercial banks in Kenya
4. To examine how interest rates influences financial performance of commercial banks in Kenya

### 1.4. Research Questions

1. How capital adequacy does affect financial performance of commercial banks in Kenya?
2. How does credit risk exposure affect financial performance of commercial banks in Kenya?
3. How does inflation affect financial performance of commercial banks in Kenya?
4. How does interest rate influence financial performance of commercial banks in Kenya?

### 1.5. Justification of Study

This research study was significant because it dealt with issues Kenyan banks are facing and will continue to confront in the future. In the present scenario, asset liability management is important for the banking industry due to increased importance of managing the asset liability mix. It will help to assess the risks and manage the risks by taking appropriate actions. So, to understand the asset liability management process and various strategies that are helpful for the banks to manage the risks, this topic was selected. Therefore, it was beneficial for me to develop my knowledge regarding the asset liability management process, functions and its effect in the financial performance of commercial banks. The research study might contribute and form the basis for further research into the application of innovative asset liability management strategies in liquidity risks by similar industry players. This can go a long way in coming up with even better and more efficient strategies that are specific to different bank sizes, markets in which they operate and balancing of the different risk appetites that may be present within the different banks.

### 1.6. Scope of the Study

Financial performance varies from one organization to another. This implies that nature of the firm and the nature of the business determine the size and types of financial processes and techniques to adopt. The study is limited to the factors influencing financial performance of commercial banks in Kenya a case study of National Bank of Kenya Coast region. The study is conducted within a specified time-period of one semester.

## 2. Literature Review

### 2.1. Introduction

This chapter covers on what various scholars on the topic under study have already established. The relevance and importance of the topic is illustrated in this area as portrayed by available literature and other materials in relation to the area under study.

### 2.2. Theoretical Review

Theories are formulated to explain, predict, and understand phenomena and, in many cases to challenge and extend existing knowledge within the limits of the critical bounding assumptions. The theoretical framework introduces and describes the theory which explains why the research problem under study exists. A theoretical framework consists of concepts, together with their definitions, and existing theory/theories that are used for the particular study (Sekaran, 2005). The theories used in this study are market power theory, efficiency structure theory and portfolio theory.

#### 2.2.1. Market Power Theory

Applied in banking the MP hypothesis posits that the performance of bank is influenced by the market structure of the industry. There are two distinct approaches within the MP Applied in banking the MP hypothesis posits that the performance of bank is influenced by the market structure of the industry. There are two distinct approaches within the MP According to the SCP approach, the level of concentration in the banking market gives rise to potential market power by banks, which may raise their financial performance. Banks in more concentrated markets are most likely to make “abnormal profits” by their ability to lower deposits rates and to charge higher loan rates as a results of collusive (explicit or tacit) or monopolistic reasons, than firms operating in less concentrated markets, irrespective of their efficiency (Tregenna, 2009). Unlike the SCP, the RMP hypothesis posits that bank financial performance is influenced by market share. It assumes that only large banks with differentiated products can influence prices and increase profits. They are able to exercise market power and earn non-competitive profits (Tregenna, 2009).

#### 2.2.2. Efficiency Structure Theory

An alternative hypothesis is the efficiency-structure (ES) hypothesis that emerges from criticism of the SCP hypothesis (Athanasoglou *et al*, 2006). The efficiency hypothesis postulates that the relationship between market structure and performance of any firm is defined by the efficiency of the firm. Firms with superior management or production technologies have lower costs and therefore higher profits. There are also two distinct approaches within the ES; the X-efficiency and Scale–efficiency hypothesis (Athanasoglou *et al*, 2006). According to the X-efficiency approach, more efficient firms are more profitable because of their lower costs. Such firms tend to gain larger market shares, which may manifest in higher levels on market concentration, but without any causal relationship from concentration to profitability. (Athanasoglou *et al*, 2006). The scale approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can obtain lower unit cost and higher profits through economies of scale. This enables large firms to acquire market shares, which may manifest in higher concentration and then profitability (Athanasoglou *et al*, 2006).

#### 2.2.3. Portfolio Theory

The portfolio theory approach is the most relevant and plays an important role in bank performance studies (Nzongang & Atemnkeng, 2011). According to the Portfolio balance model of asset diversification, the optimum holding of each asset in a wealth holder’s portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio. It implies portfolio diversification and the desired portfolio composition of commercial banks are results of decisions taken by the bank management.

Further, the ability to obtain maximum profits depends on the feasible set of assets and liabilities determined by the management and the unit costs incurred by the bank for producing each component of assets (Nzongang & Atemnkeng, 2011).

### 2.3. Conceptual Framework

(Mugenda & Mugenda, 2006) defines conceptual framework as a concise description of phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. According to (Young, 2009), conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variables. A conceptual framework shows the relationship between independent and dependent variable. In this study, the dependent variable is financial performance while the independent variables are capital holding, changes in interest rates, capital adequacy, credit risk and inflation as shown in figure. 1.

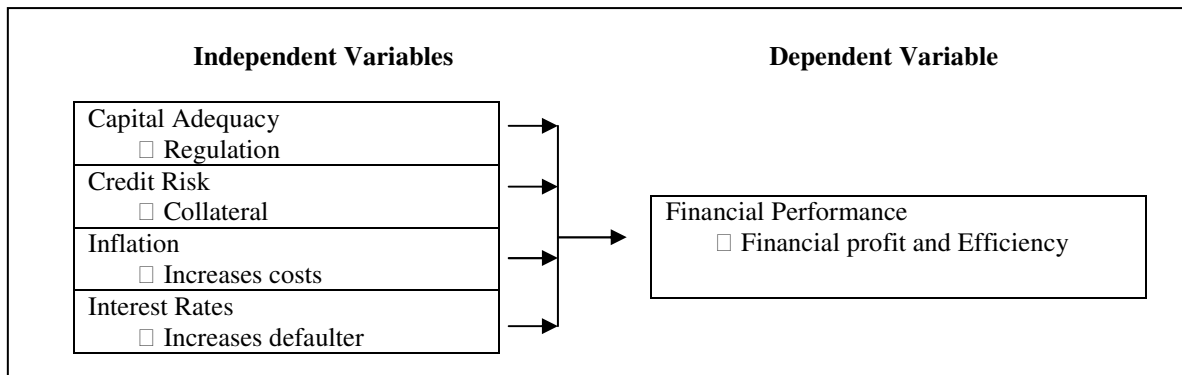


Figure 1: Conceptual Framework

#### 2.3.1. Capital Adequacy

Capital is one of the bank specific factors that influence the level of bank profitability. Capital is the amount of own fund available to support the bank's business and act as a buffer in case of adverse situation (Athanasoglou, Sophocles, & Matthaios, 2013). Banks capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs. Moreover, greater bank capital reduces the chance of distress (Diamond, 2000). However, it is not without drawbacks that it induces weak demand for liability, the cheapest sources of fund Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential losses and protect the bank's debtors. According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi & Nazir, 2010).

Capital adequacy for commercial banks is measured by different variables including the log of total assets (LTA), Loan Loss provisions to total loans, loans to assets, tax to operating profit before tax, overhead expenses to total assets, non-interest income to total assets, total revenue to number of employees and shareholders' equity to total assets. All these measures aim to measure capital adequacy of commercial banks from different perspectives. The idea behind the measures is to determine the level of capital held compared to equity and other balance sheet activities. For instance, capitalization which is regarded as the principal measure of capital adequacy, is a measure ratio of shareholder's equity to total assets. The lower the capitalization or capital ratio is the risky the banking institution is and vice versa.

#### 2.3.2. Credit Risk

Existing theory on the bank exposure suggests that increased credit risk is associated with a decrease in bank profitability. Credit risk is negatively related to Return on Assets (ROA) and Return on Equity (ROE). Credit risk is defined as the loan-loss provisions to loans ratio. Therefore, banks can improve their performance by reducing the credit exposure. According to Podder (2012), this can be achieved by improving on screening and monitoring of credit risk policies and adopting current strategies to forecast future levels of risk. In most countries, the central banks and other regulatory authorities that regulate the banking and financial institutions set us specific standards to address the level of loan loss provisions in order to enhance good performance of banking institutions and safeguard the economy. In line with these provisions, most banking institutions adjust their provisions held for loan losses to a predetermined level set at the end of each period. Therefore, credit risk is a predetermined determinant of bank performance that is depended on risk attitude and philosophy of management as well as on other decisions taken by the management.

#### 2.3.3. Inflation

The inflation rate in a country is also another macro-economic factor that has been associated with the performance of commercial banks and a number of researchers have focused on establishing this relationship. It is noted that generally, high inflation rates lead to high interest rates on loans and thus lead to higher income to commercial banks. Swarnapali (2014), however, asserts that "the effect of inflation on banking performance depends on whether inflation is anticipated or unanticipated". In an event where an increase in the

inflation rates is fully anticipated and an adjustment is made to the interest rates accordingly, then this leads to a positive influence on the financial performance of commercial banks.

On the other hand, when an increase in the inflation rates is not anticipated, it results in a situation where the local borrowers are faced with cash flow difficulties and this can result in the termination of bank loan agreements in a premature fashion thus causing loan losses for the issuing commercial bank. The general observation is that when commercial banks take a lot of time to adjust their interest rates after changes in the inflation rates, it leads to a situation where the bank's operating costs may rise faster than the revenues of the bank. Siddiqui & Shoaib (2011) even conclude that "high and variable inflation may cause difficulties in planning and in negotiation of loans".

#### 2.3.4. Interest Rates

It is also believed that an increase in interest rates should lead to an increase in the financial performance of commercial banks since this leads to an increase in the spread between the interest rates for savings and the interest rates for borrowing. Podder (2012) evaluated this relationship and found that "this relationship is particularly apparent for smaller banks in the USA". They further noted that a reduction in the interest rates during a recession period results in a slower growth in bank loans while at the same time increasing the amount of nonperforming loans and thus increased loan losses. This therefore means that commercial banks, particularly the smaller ones may have a lot of difficulties in maintaining their financial performance when the market rates are on a decreasing trend. More studies have been carried out to evaluate this relationship and results have clearly shown that there is a positive relationship between interest rates and the financial performance of commercial banks (Podder, 2012).

Interest rates affect both the commercial banks and their customers in two major ways. When the interest rates rise, customers are unable to service their existing loans which leads to losses to the commercial banks since if the situation continues that way, they are forced to write off their debts. This eats into the profits of the company since it means that the commercial bank is not able to recover both the principal amounts loaned as well as the expected interest from the customers (Makkar & Singh, 2013). When the interest rates are too low, the interest earned from the loaned out amounts is negligible and thus contributes little to the profitability of the commercial bank. There is therefore need for a balance in the interest rates in order to ensure the banks benefit (Lipunga, 2014).

Customers on the other hand avoid the consumption of bank loans when the interest rates are too high since they can either not afford to take up loans or the interest rates are too high that they just prefer to seek other cheaper alternatives such as micro finance institutions and other cheaper lending institutions. This affects negatively the ability of the commercial banks to earn interest from their customer deposits since they cannot loan them out to borrowers. This therefore leads to poor performance of the commercial bank as well as its profitability. It is important to note that this is the case that happened when the financial crisis of 2008 occurred. Macit, (2011) analyzed the bank specific and macro-economic determinants of the profitability of commercial banks and found that interest rates are a major determinant.

#### *2.4. Measurement of Financial Performance*

The determinants of bank performances can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010; Aburime, 2005). These are stochastic variables that determine the output. Internal factors are individual bank characteristics which affect the banks performance. These factors are basically influenced by internal decisions of management and the board. The external factors are sector-wide or country-wide factors which are beyond the control of the company and affect the profitability of banks. The overall financial performance of banks in Kenya in the last two decades has been improving. However, this doesn't mean that all banks are profitable, there are banks declaring losses (Oloo, 2010). Studies have shown that bank specific and macroeconomic factors affect the performance of commercial banks (Flamini *et al.* 2009). In this regard, the study of Olweny and Shiphoo (2011) in Kenya focused on sector-specific factors that affect the performance of commercial banks. Yet, the effect of macroeconomic variables was not included. Moreover, to the researcher's knowledge the important element, the moderating role of ownership identity on the performance of commercial banks in Kenya was not studied. Thus, this study was conducted with the intention of filling this gap.

Financial performance measures are intended to evaluate the effectiveness and efficiency by which organizations use financial and physical capital to create value for shareholders. Some authors have suggested the balanced scorecard which provides a framework, the use of financial and non-financial measures of performance via balancing four perspectives - financial, customers, internal business processes, and learning and growth (Kaplan & Norton, 1992). The key recommended measures for financial analysis include: profitability, liquidity and solvency (Zenios *et al.* 1999). Profitability measures the extent to which a business generates a profit from the factors of production: labour, management and capital. A subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.

This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Copisarow, 2000). Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business. Four useful profitability ratios and measures are the return on assets (ROA), return on equity (ROE), operating profit margin and net income. The ROA measures the return to all assets and is often used as an overall index of profitability and the higher the value, the more profitable the business. The ROE measures the rate of return on the owner's equity employed in the business. It is useful to consider the ROE in relation to ROA to determine if the firm is making a profitable return on their borrowed money. The operating profit margin measures the returns to capital per unit of gross revenue. Net income comes directly off of the income statement and is

calculated by matching revenues with the expenses incurred to create those revenues, plus the gain or loss on the sale of capital assets (Zenios *et al.* 1999).

Measures of financial performance according to Copisarow, (2000) are subjective measures of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial performance is the single most important factor in assessing growth potential, earnings capacity and overall financial strength (Richardson, 2002). In theory, product diversification should lead to reduce volatility of earnings. However, earnings arising from non-interest activities of banks are much more volatile than net interest income (European Central Bank, 2010).

Most studies divide the determinants of commercial banks financial performance into two categories, namely internal and external factors. Internal determinants of profitability, which are within the control of bank management, can be broadly classified into two categories, i.e. financial statement variables and non-financial statement variables. Financial statement variables relate to the decisions which directly involve items in the balance sheet and income statement including product development. Developing new products is a major responsibility for bank product managers, which includes defining marketing needs and scanning the environment for new opportunities as additional major responsibilities. Among the internal, management controllable factors are bank specific financial ratios representing cost efficiency, liquidity, asset quality, and capital adequacy (Richardson, 2002).

In general, large-sized banks have the advantage of providing a larger menu of financial services to their customers, and hence mobilize more funds (Haron & Sudin 2004). High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Stronger management's beliefs and strategic planning results in better financial performance. External factors are those factors that are considered to be beyond the control of the management of a bank. Among the widely discussed external variables are competition, regulation, market share, bank ownership and structure, monetary policy, and macro-economic indicators including inflation, money supply, exchange rate and gross domestic product. Annual Growth Rate for Gross domestic product is considered important factor affecting bank financial performance because the high of GDP growth means the increased of investment. Inflation is another important environmental condition which may effect on ROE and ROA as this factor represents the changes in the general price level or inflationary conditions in the economy and affects the investor's return. Inflation affects the real value of costs and revenues although it may have a positive or negative effect on profitability depending on whether it is anticipated or unanticipated. Exchange rate stability has a direct impact on financial performance given a favorable movement and stability in the market (Haron & Sudin, 2004).

### 2.5. Critique of the existing Literature

The measurement of bank performance particularly commercial banks is well researched and has received increased attention over the past years (Seiford & Zhu, 1999). There have been a large number of empirical studies on commercial bank performance around the world (Yeh, 1996; Webb, 2003; Laceywell, 2003; Halkos & Salamouris, 2004; Tarawneh, 2006). However, little has been done on bank performance in South Africa. However, with the deteriorating health of the banking institutions and the recent surge of bank failures as a result of the current global financial crisis, it is justified that bank performance receives increased investigation from both scholars and industry specialists.

There are two broad approaches used to measure bank performance, the accounting approach, which makes use of financial ratios and econometric techniques. Traditionally accounting methods primarily based on the use of financial ratios have been employed for assessing bank performance (Ncube, 2009). However, the limitations of this method coupled with advances in management sciences have led to the development of alternate methods such as non-parametric DEA and parametric Stochastic Frontier Approach (hereafter, SFA) (Berger & Humphrey, 1997).

Berger and Humphrey (1997) assert that the whole idea of measuring bank performance is to separate banks that are performing well from those which are doing poorly. They further indicated that, "evaluating the performance of financial institution can inform government policy by assessing the effects of deregulation, mergers and market structure on efficiency". Bank regulators screen banks by evaluating banks' liquidity, solvency and overall performance to enable them to intervene when there is need and to gauge the potential for problems (Casu *et al.* 2006). On a micro-level, bank performance measurement can also help improve managerial performance by identifying best and worst practices associated with high and low measured efficiency.

### 2.6. Research Gap

Amdemikael (2012) carried out study to examine the bank-specific, industry-specific and macro-economic factors affecting bank profitability for eight commercial banks operating in Ethiopia, covering the period of 2000-2011. He adopts a mixed research approach by combining documentary analysis and in-depth interviews. He used ROA as a dependent variable and capital strength, operational efficiency, income diversification, liquidity risk, bank size, asset quality, industry concentration level, real GDP growth and inflation as independent variables. The findings of the study show that capital strength, income diversification, bank size and gross domestic product have statistically significant and positive relationship with banks' profitability.

On the other hand, variables like operational efficiency and asset quality have a negative and statistically significant relationship with banks' profitability. However, the relationship for liquidity risk, concentration and inflation is found to be statistically insignificant. Even though studies were undertaken by Belayneh (2011), Amdemikael (2012), Birhanu (2012), Habtamu (2012) and Mohana *et al.* (2012), on the determinants of Ethiopian banking performance, they all fails to include the important variables like capital structure and effective tax rate. Because these variables are very important variables which can significantly affects the performance of Ethiopian banking industry.



However, locally, Murerwa (2015), used industry specific, firms' specific and macro-economic specifics to determine the banks financial performance in developing economies. Therefore, this study seeks to determine financial performance of commercial banks by examining factors that influence financial performance of commercial banks in Kenya a case study of National Bank of Kenya Coast region.

### 2.7. Summary

The study reviewed literature from various sources including theories that support financial performance of commercial banks. The review also looked at the conceptual framework especially how independent variable influences the dependent variable. Critical review of existing literature is examined to shed light on what other researchers have done on similar topic and the research gap justified how and why this study is being conducted.

## 3. Research Methodology

### 3.1. Introduction

This chapter outlines the research design and methodology that will be used to carry out the study. The chapter also deals with the target population, type of data collected, sampling frame, sample and sampling technique, the sample size, data collection procedures, pilot test, validity and reliability of the instrument as well as the data analysis techniques and how eventually data will be presented.

### 3.2. Research design

The researcher will use descriptive research design. Descriptive study is concerned with finding out who, what, where and how much of a phenomenon, which is the concern of the study. (Sekaran, 2011) observes that the goal of descriptive research is to offer the researcher a profile or describe relevant aspects of the phenomena of interest from the individual, organization, industry or other perspective. In addition, the design best fit in the ascertainment and description of characteristics of variable in this research study and allows for use of questionnaires, interviews and descriptive statistics such as frequencies and percentages. In addition, a descriptive design is appropriate since it will enable the researcher to collect enough information necessary for generalization.

### 3.3. Target Population

The study will target 1,700 employees of NBK in the senior management and heads of department, working in Mombasa in various departments. Mombasa branch is selected as a case study because of proximity to the researcher, time availability for research and budgetary constraints.

### 3.4. Sample Size

(Mugenda & Mugenda, 2006) asserts that sampling is that part of the statistical practice concerned with the selection of individual or observations intended to yield some knowledge about a population of concern, especially for the purpose of statistical inferences. They advise that a researcher would have to use 30% of the total target population as a sample for it to be accepted as a good representative sample. The sample size will be 51 as shown in Table 1

Management	Population	Percentage %	Target Population	Percentage	Sample
Senior Managers	200	10	20	30	6
Department Managers	1,500	10	150	30	45
TOTAL	1, 700		170		51

Table 1: Sample Size

### 3.5. Sampling Technique

Sampling is the process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire population. Sample is a small group of objects or individuals selected or drawn from a population in such a manner that its characteristics represent population characteristics (Orodho, 2009).

Stratified random sampling method is used to select relevant respondents from various departments of NBK. (Mugenda & Mugenda, 2006) argue that stratified random sampling is where a given number of cases are randomly selected from each population sub-group. It thus ensures inclusion in the sample of subgroup which otherwise could be omitted entirely by other sampling methods. In this case stratification will be based on departments namely treasury, retail banking, corporate banking, loans department and agency banking department.

Stratified sampling enables the population to be divided into two segments (relevant departments within NBK) called strata. Simple random sample is then drawn from each stratum, and then those sub-samples joined to form complete stratified samples. In addition, proportional allocation is done, where each stratum contributed to the sample a number that is proportional to its size in the population.

### 3.6. Data Collection Instruments

The researcher will use structured questionnaires to collect data from NBK respondents. A questionnaire with high reliability would receive similar answers if it is done again and again or by other researchers (Bryman & Bell, 2015); Saunders *et al.*, 2007). In addition, the questionnaires are convenient for the task in that they can be easily and conveniently administered with the study sample. The use of questionnaire is cost effective, less time consuming as compared to the use of interview. Data collected through the use of well-structured questionnaire is easy to analyze. The questionnaire will use Likert scale because it requires respondents to respond to a series of statements by indicating whether he or she agrees to a great extent or no extent. Likert scale is used because it is easy to understand and responses are easily quantifiable and subjective to computation of mathematical analysis (Allen *et.al*, 2011).

### 3.7. Data Collection Procedures

The researcher will use primary and secondary data. Structured questionnaires will be used to collect primary data from respondents. The questionnaire will be self-administered to the respondents and collected after will be collected after three days. Secondary data will be obtained from related materials in the internet, procurement journals, white papers, periodicals and books relevant to the study.

### 3.8. Piloting

The questionnaires will be pilot tested before the actual data collection. This will involve a few respondents from NBK to ascertain its effectiveness. The researcher will be interested in testing the reliability of the research instruments, the questionnaire hence validity of data collected. Validity is the accuracy and meaningfulness of inferences which are based on the research results (Mugenda & Mugenda, 2006) asserts that reliability is done using Cronbach's Alpha Model on SPSS. (Mugenda & Mugenda, 2006) assert that reliability is the measure of the degree to which research instrument yields consistent results or data after repeated trials. The researcher will do a pilot with 10 % of respondents before distributing the questionnaire. The researcher will use 7 respondents for the pilot process. The purpose is to ensure that those items in the questionnaire are clearly stated and have the same meaning to all respondents. At the same time, I will help to determine how much time is required to administer the questionnaire. Respondents for pre-testing will not form part of the sample.

### 3.9. Data Processing, Analysis and Presentation

(Kothari, 2012) argues that data collected has to be processed, analyzed and presented in accordance with the outlines laid down for the purpose at the time of developing the research plan. Data analysis involves the transformation of data into meaningful information for decision making. It will involve editing, error correction, rectification of omission and finally putting together or consolidating information gathered. The collected data will be analyzed quantitatively and qualitatively. Descriptive and inferential statistics will be done using SPSS version 22 and specifically multiple regression model will be applied. Set of data will be described using percentage, mean standard deviation and coefficient of variation and presented using tables, charts and graphs. (Fraenkel & Wallen, 2011) argue that regression is the working out of a statistical relationship between one or more variables. The researcher will use a multiple regression analysis to show the effect and influence of the independent variables on the dependent variables.

The relationship is as follows;

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

$\alpha$  = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$  = Partial regression coefficient

$X_1$  = Capital Adequacy

$X_2$  = Credit Risk

$X_3$  = Inflation

$X_4$  = Interest Rates

## 4. Data Analysis, Results and Discussion

### 4.1. Introduction

This chapter presents analysis of the data on the determinants of investment decision making among employees of National Bank of Kenya Coast region, Kenya. The chapter also provides the major findings and results of the study and discusses those findings and results against the literature reviewed and study objectives. The data is mainly presented in frequency tables, means and standard deviation.

### 4.2. Response Rate

The study targeted 51 employees of National bank of Kenya, Coast region, Kenya. From the study, 40 out of the 51 sample respondents filled-in and returned the questionnaires making a response rate of 78.4% as per Table 2 below.

	Frequency	Percentage
Respondent	40	78.4
Non-respondent	11	21.6
<b>Total</b>	<b>51</b>	<b>100</b>

Table 2: Questionnaire Return Rate

According to (Mugenda & Mugenda, 2006) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent; therefore, this response rate was adequate for analysis and reporting.

#### 4.2.1. Data Validity

The researcher asked experts, three academicians, to assess the scales' content validity. Accordingly, the researcher made changes on the first draft in terms of eliminating, adding or rewording some of the items included in that draft.

#### 4.2.2. Reliability Analysis

Prior to the actual study, the researcher carried out a pilot study to pre-test the validity and reliability of data collected using the questionnaire. The pilot study allowed for pre-testing of the research instrument. The results on reliability of the research instruments are presented in Table 3 below.

Scale	Cronbach's Alpha	Number of Items
Capital Adequacy	0.764	7
Credit Risk	0.809	7
Inflation	0.723	7
Interest Rates	0.791	7

Table 3: Reliability Coefficients

The overall Cronbach's alpha for the four categories which is 0.752. The findings of the pilot study show that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Mugenda & Mugenda, 2006).

#### 4.3. Background Information

The background information was gathered based on length of time worked, level of education and position held in the bank.

##### 4.3.1. Length of Time Worked in the Bank

The study set out to establish from the study how long respondents have worked in the bank. The results revealed that majority of respondents have worked for between 3-6 years at 42.5%, 0-3 years, 25%, 6-9 years 22.5% and respondents who have worked for over 9 years were 10% with a mean score of 2.18 with standard deviation of 0.931 as shown in Figure 2.

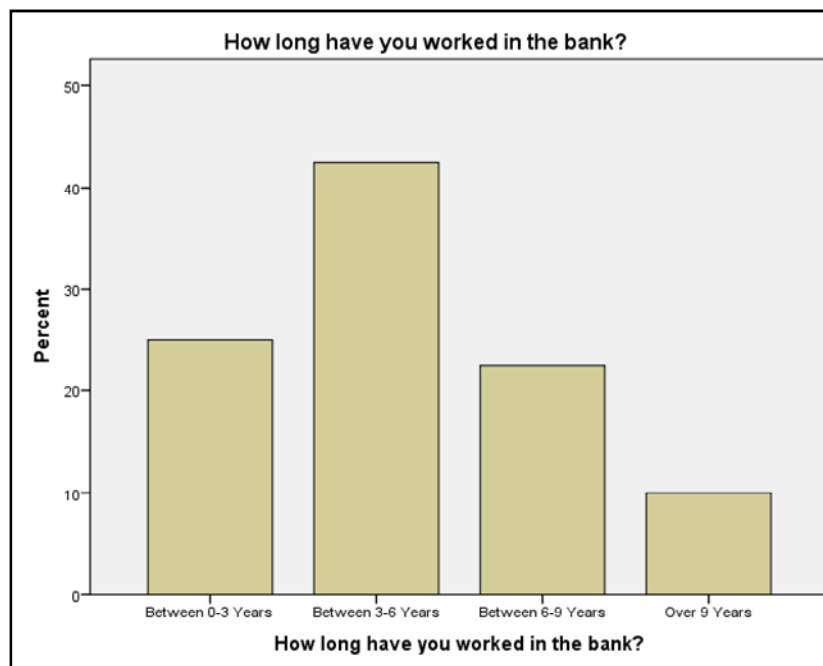


Figure 2: Length of time worked in the bank

##### 4.3.2. Level of Education

The study sought to determine the level of education of respondents. The results revealed that 55% of respondents hold a bachelor's degree, 25% hold master's degree, 10% certificates, 7.5% hold other forms of qualifications and 2.5% hold diploma certificates with a mean score of 3.18 and a standard deviation of 0.984 as shown in Figure 3.

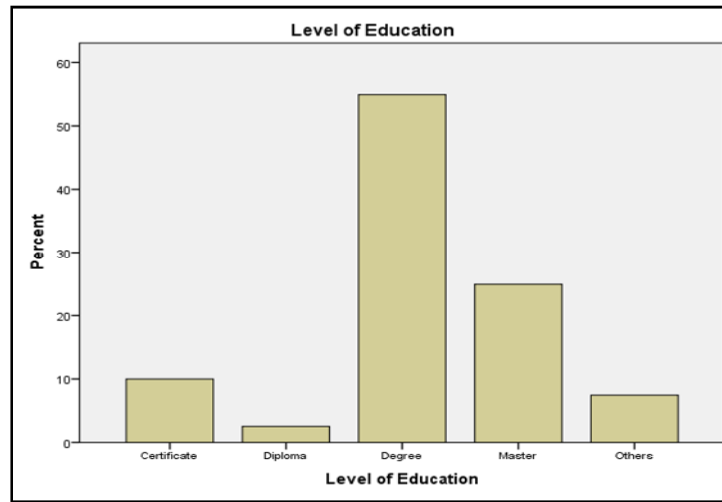


Figure 3: Level of Education

4.3.3. Position Held in the Bank

The study sought to know what position respondents hold in the bank. The results revealed that 72.5% are heads of department and 27.5% are senior manager with mean score of 1.28 and a standard deviation of 0.452 as shown in Figure 4

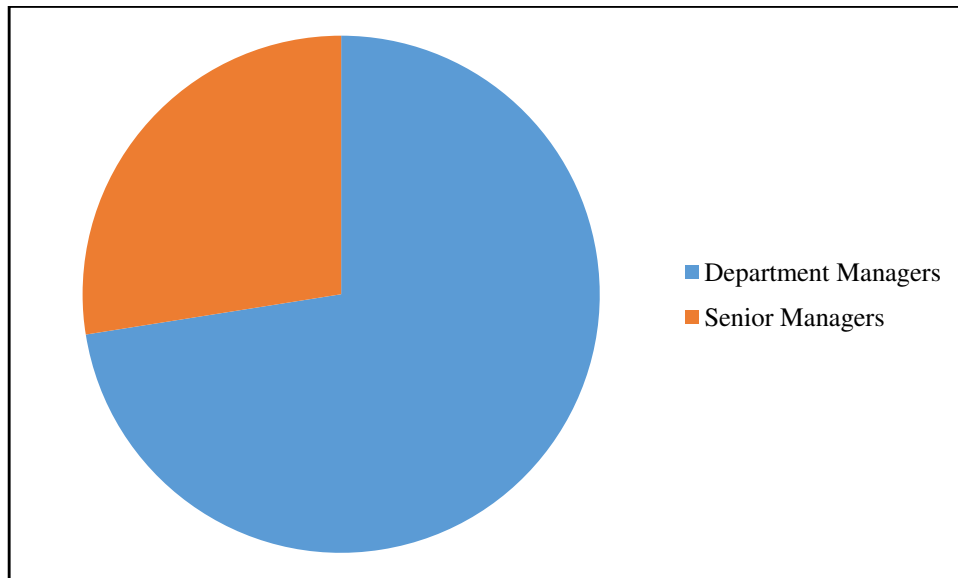


Figure 4: Position in the bank

4.4. Analysis of Objectives

In the research analysis the researcher used a tool rating scale of 5 to 1; where 5 was the highest and 1 the lowest. Opinions given by the respondents were rated as follows, 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree and 1= Strongly Disagree. The analysis for mean, standard deviation and coefficient of variation were based on this rating scale.

4.4.1. Capital Adequacy and Liquidity

Capital Adequacy	N	Mean	Std. Deviation
Central bank of Kenya regulations negatively impacts our profits	40	3.60	1.150
There is a positive relationship between Capital Ratio and bank performance	40	4.25	.776
There is a negative relationship between Liquidity and bank performance	40	4.00	1.281
The nature of ownership, whether private or public, plays a role in our profits	40	3.82	1.279
Change in capital requirements affects financial performance of the bank	40	4.20	.992
The strategic positioning of our bank branches directly impacts our profits	40	3.37	1.254
High cash reserves held by the Central bank of Kenya affects financial performance	40	4.10	1.257
Valid N (listwise)	40		

Table 4: Capital Adequacy and Liquidity

The first objective of the study was to establish the effect of capital adequacy and liquidity on financial performance of commercial banks in Kenya. Respondents were required to respond to set questions related to capital adequacy and liquidity and give their opinions. The opinion in agreement that change in capital requirement affects financial performance of the bank had a mean of 4.20 and standard deviation of 0.992 signifying a high level of agreement. When Central Bank increases capital requirements for operation of a bank, it eats into the retained earnings or shareholders are required to increase their shareholding thus denying the bank the necessary funding for credit or investment (Jenkinson, 2008). The opinion that CBK regulations negatively impacts our profits had a mean score of 3.60 and a standard deviation of 1.150 implying that regulation is good and does not necessary impact negatively on performance of commercial banks (Jenkinson, 2008). The opinion that there is a positive relationship between capital ratio and bank performance had a mean score of 4.25 and a standard deviation of 0.776 signifying that capital ratio held by the CBK currently standing at 20% of the capital is not earning interest whereas if this capital ratio were to be reduced to less than 10%, then commercial banks would have much liquidity to lend to the public therefore earn interest on the capital (Bernake & Blinder, 2009). The opinion that there is a negative relationship between liquidity and bank performance had a mean score of 4.00 with a standard deviation of 1.281 implying that when a bank has no sufficient liquidity it lends less and therefore earn less in interest income (Boahene, Dasah, & Agyei, 2012). The opinion that the nature of ownership, whether private or public plays a role in our private had a mean of 3.82 with a standard deviation of 1.279. The opinion that strategic positioning of our bank branches directly impacts our profits had a mean of 3.37 with standard deviation of 1.254. The opinion that high cash reserves held by the CBK affects financial performance had a mean score of 4.10 with a standard deviation of 1.257.

#### 4.4.2. Credit Risk

<b>Credit Risk</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
The level of debts held by the bank will affect its profitability	40	3.50	1.155
Growth of mobile money transfer and mobile banks has directly affected our profits	40	3.95	1.239
The high level of loan defaulters affects profitability	40	4.28	1.086
Absence of credit risk analyst affects profitability	40	2.90	.709
Bad economic times affects how customers repay their credit facilities	40	4.60	.744
Cheap credit availability from other non-conventional sources affects profitability	40	2.95	1.108
Strict lending terms affects profitability	40	3.75	.981
Valid N (listwise)	40		

Table 5: Credit Risk

The first objective of the study was to establish the effects of credit risk on financial performance of commercial banks in Kenya. Respondents were required to respond to set questions related to credit risk and give their opinions. The opinion in agreement that strict lending term affects profitability had a mean score of 3.75 with a standard deviation of 0.981 signifying a high level of agreement. Implies that when commercial banks relax their lending terms many people are able to borrow thereby enabling banks to earn interest from loans advanced (Boahene, Dasah, & Agyei, 2012). The opinion that the level of debt held by banks affects profitability had a mean score of 3.50 with a standard deviation of 1.155. The opinion that growth of mobile banking has directly affected banks' profits had a mean score of 3.95 with a standard deviation of 1.239. The opinion that high level of loan defaulters affects profitability had a mean of 4.28 with a standard deviation of 1.086 this implies that bad loans and non performing loans when they are written off profits are used to settle them (Biefang & Howells, 2011). The opinion that absence of credit risk analyst affects profitability had a mean score of 2.90 with a standard deviation of 0.709 implying that absence of credit analyst does not affects profitability. The opinion that bad economic time affects how customers repay their credit facilities had a mean score of 4.60 with a standard deviation of 0.744. Bad economic times cause earnings to shrink and therefore bank customers are not able to repay their loans on time sometime they are forced to reschedule the loan term or default on repayments (Kealhofer, 2008). Cheap credit availability from other non-conventional sources affects profitability had a mean score of 2.95 with a standard deviation of 1.108.

#### 4.4.3. Inflation

<b>Inflation</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
The level of debts held by the bank will affect its profitability	40	3.50	1.155
Growth of mobile money transfer and mobile banks has directly affected our profits	40	3.95	1.239
The high level of loan defaulters affects profitability	40	4.28	1.086
Absence of credit risk analyst affects profitability	40	2.90	.709
Bad economic times affects how customers repay their credit facilities	40	4.60	.744
Cheap credit availability from other non-conventional sources affects profitability	40	2.95	1.108
Strict lending terms affects profitability	40	3.75	.981
Valid N (listwise)	40		

Table 6: Inflation

The third objective of the study was to establish the effects of inflation on financial performance of commercial banks in Kenya. Respondents were required to respond to set questions related to inflation and give their opinions. The opinion in agreement that when there is inflationary pressure on the economy consumers change their behavior thus affecting profitability of the bank had a mean score of 4.60 with a standard deviation of 0.744. The opinion that stability of inflation rates plays a role in the profit we make had a mean score of 2.90 with a standard deviation of 0.709. The opinion that the saving culture and practices of Kenyans has an impact on our financial performance had a mean score of 3.75 with a standard deviation of 0.981. Imbalance of trade, which is the gap between imports and exports in Kenya affects our profits, had a mean score of 2.75 with a standard deviation of 1.108. The opinion that the consumer purchasing power plays a role in the commercial banks financial performance has a mean score of 4.28 with a standard deviation of 1.086. The opinion that depreciation and appreciation of the Kenyan currency is a key determinant of our profitability had a mean score of 3.95 with a standard deviation of 1.239. The volatility of exchange rates affects our financial performance has a mean score of 3.50 with a standard deviation of 1.155. Implying that when the economy is experiencing harsh inflationary pressures, purchasing power of the people dwindles resulting in low consumption hence many manufactures will not borrow to expand production hence denying banks revenue in the form of interest income (Bofondi & Gobbi, 2011).

#### 4.4.4. Interest Rates

<b>Interest Rates</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
The volatility of exchange rates affects our financial performances	40	3.60	1.081
Depreciation and appreciation of Kenya currencies is a key determinant of our profitability	40	3.40	1.215
The consumer purchasing power plays a role in our financial performance	40	3.35	1.312
Stability of inflation rates plays a role in our financial performance	40	3.88	1.159
Change in consumption behaviours affects the profits we make	40	4.23	.891
Imbalance of trade, which is the gap between imports and exports in Kenya affects our profits	40	3.72	1.132
The saving culture and practices of Kenyans has an impact on our financial performance	40	3.85	1.189
Valid N (listwise)	40		

Table 7: Interest Rates

The fourth objective of the study was to establish the effects of interest rates on financial performance of commercial banks in Kenya. Respondents were required to respond to set questions related to interest rates and give their opinions. The opinion in agreement that charging different interest rates affects profitability had a mean score of 4.23 with a standard deviation of 0.891 signifying a high level of agreement. When there are uniform interest rates charged a commercial bank is able to forecast its profitability contrary to charging different rates which reduces interest income (Boahene, Dasah, & Agyei, 2012). The opinion that types of interest rates affects profitability had a mean of 3.85 with a standard deviation of 1.189. Interest rate determination through the CBR affects profitability had a mean of 3.72 with a standard deviation of 1.132. The statement that macro-economic policies by the government such as increasing or decreasing its expenditure affects its profits had a mean score of 3.60 with a standard deviation of 1.081. The opinion that high interest rates limits people to borrow thus affecting profitability had a mean score of 3.40 with a standard deviation of 1.215. The opinion that high interest rates affect loan repayment by customers had a mean score of 3.35 with a standard deviation of 1.312 (Jenkinson, 2008). The opinion that interest rates charged to customers are a source of revenue to the bank had a mean score of 3.88 with a standard deviation of 1.159.

#### 4.4.5. Financial Performance

<b>Financial Performance</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Macro-economic policies by the government such as increasing or decreasing its expenditure affects our profits	40	3.85	1.252
High interest rates limit people to borrow thus affecting profitability	40	3.95	1.176
High interest rates affect loan repayment by customers	40	3.98	1.165
Interest rates charged to customers are a source of revenue to the bank	40	4.60	.496
Charging different interest rate affects profitability	40	3.27	1.261
Interest rates determination through the Central Bank rate affects profitability	40	2.75	1.032
Types of interest rates affects profitability	40	2.55	1.037
Valid N (listwise)	40		

Table 8: Financial Performance

The opinion in agreement that increase in cash ratio affects profitability in banks had a mean score of 4.60 with a standard deviation of 0.496. Increase in cash ratio requirement denies the much needed funds to expand the credit lines being advanced to the people (Boahene, Dasah, & Agyei, 2012). Competition affects bank performance had a mean score of 3.85 with a standard deviation of 1.252.

Concentration of banks in the banking industry affects profitability had a mean score of 3.95 with a standard deviation of 1.176. Innovations in products contents is a key driver of profitability had a mean score of 3.98 and a standard deviation of 1.165. The time period the bank has been in operation affects the profits levels had a mean score of 2.75 with a standard deviation of 1.032 and the opinion that the development of financial sector in Kenya impacts on profits had a mean score of 2.55 with a standard deviation of 1.037.

#### 4.5. Multiple Regression Analysis

The correlation analysis Table 9 shows the relationship between the independent variables, capital adequacy, credit risk, inflation and interest rates the dependent variable financial performance at National Bank of Kenya Coast Region. The analysis indicates the coefficient of correlation, r equal to 0.370, 0.376, 0.120 and 0.364 for capital adequacy, credit risk and inflation and interest rates respectively. This indicates positive relationship between the independent variables, capital adequacy, credit risk, inflation and interest rates and the dependent variable financial performance at National Bank of Kenya Coast region.

Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	5.205	6.258		.832	.011			
	Capital Adequacy and Liquidity	.256	.175	.281	1.468	.001	.370	.241	.004
	Credit Risk	.156	.174	.170	.894	.003	.376	.149	.002
	Inflation	.059	.169	.070	.347	.000	.120	.059	.001
	Interest Rates	.226	.291	.155	.778	.002	.364	.130	.003

a. Dependent Variable: Financial Performance

Table 9: Multiple Regression Analysis

The regression equation was:

$$Y = 5.205 + 0.256X_1 + 0.156X_2 + 0.059X_3 + 0.226X_4$$

Where

Y: the dependent variable (Financial Performance).

X<sub>1</sub>: Capital Adequacy.

X<sub>2</sub>: Credit Risk.

X<sub>3</sub>: Inflation.

X<sub>4</sub>: Interest Rates.

The regression equation above has established that taking all factors into account (financial performance as a result of capital adequacy, credit risk, inflation and interest rates) constant at zero investment decision making among employees of NBK will be 5.205. The findings presented also shows that taking all other independent variables at zero, a unit increase in capital adequacy will lead to a 0.256 increase in the scores of financial performance among employees of NBK; a unit increase in credit risk will lead to a 0.156 increase in financial performance among employees of NBK, a unit increase in inflation will lead to a 0.059 increase in the scores of financial performance among employees of NBK; and a unit increase in interest rates will lead to a 0.226 increase in the score of financial performance among employees of NBK. This therefore implies that all the four variables have a positive relationship with financial performance with capital adequacy contributing most to the dependent variable.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.682 <sup>a</sup>	.465	.500	2.68073	.682	2.653	4	35	.001

a. Predictors: (Constant), Interest Rates, Capital Adequacy and Liquidity, Credit Risk, Inflation

Table 10: Regression Analysis Summary

Table 10 above indicates an overall P-value of 0.001 which is less than 0.05 (5%). This shows that the overall regression model is significant at the calculated 95% level of significance. It further implies that the studied independent variables namely capital adequacy and liquidity, credit risk, inflation and interest rates have significant effect on financial performance of National Bank of Kenya Coast region.

Table 10 shows the regression model summary indicating the coefficient of determination R Square as 0.465. This means that 46.5% of the relationship is explained by the identified four factors namely capital and liquidity adequacy, credit risk, inflation and interest rates. The rest 53.5% is explained by other factors in the banking industry not studied in this research.

In summary the four factors studied namely, capital and liquidity adequacy, credit risk, inflation and interest rates explains or determines 46.5% of the relationship while the rest 53.5% is explained or determined by other factors.

#### 4.6. Analysis of Variance (ANOVA)

The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model is as per Table 11 below with P-value of 0.22 which is less than 0.05. This indicates that the regression model is statistically significant in predicting factors affecting financial performance in National Bank of Kenya Coast region.

Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall Anova results indicates that the model was significant at  $F = 2.653$ ,  $p = 0.022$ .

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.253	4	19.063	2.653	.022 <sup>b</sup>
	Residual	251.522	35	7.186		
	Total	327.775	39			
a. Dependent Variable: Financial Performance						
b. Predictors: (Constant), Interest Rates, Capital Adequacy and Liquidity, Credit Risk, Inflation						

Table 11

## 5. Summary of the Findings, Conclusions and Recommendations

### 5.1. Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The chapter finally presents the limitations of the study and suggestions for further studies and research.

### 5.2. Summary of the Findings

The objective of this study was to examine the factors that influence financial performance of commercial banks in Kenya, a case study of National Bank of Kenya, Coast region. The study was conducted on the 40 employees out of 51 employees that constituted the sample size. To collect data, the researcher used a structured questionnaire that was personally administered to the respondents. The questionnaire constituted 38 items. The respondents were the employees of NBK. In this study, data was analyzed using frequencies, mean scores, standard deviations, percentage, Correlation and Regression analysis.

From the findings majority of respondents have worked for between 3-6 years, on education level, majority of the respondents have a bachelor's degree and work as head of departments in the bank. Change in capital requirement affects financial performance of commercial banks because fund that were to be lend out to earn interest income are put up as capital thus denying commercial banks revenue (Biefang & Howells, 2011). Bad economic times affect how customers repay their credit facilities thus causing loan defaulter (Bofondi & Gobbi, 2011). When inflation is rising, consumer purchasing power is greatly reduced because many people are not able to borrow and invest and eventually repay loans. Charging different interest rates affects profitability.

To establish the relationship between the independent variables and the dependent variable the study conducted Karl Pearson's coefficient of correlation ( $r$ ) was used in trying to show the relationship between the study variables and their findings. According to the findings, it was clear that there was a positive correlation between capital adequacy, credit risk, inflation and interest rates shown by a correlation value of 0.370, 0.376, 0.120 and 0.364 respectively. This indicates that independent variable and dependent variable move in the same direction, that is, as one increase the other one also increases.

From the finding  $R^2$  has a value of 0.465 meaning that the 46.5 % of the dependent variable can be explained or attributed to combination of the four independent factors investigated in this study. A further 53.3 % of financial performance is attributed to other factors not investigated here.

According to the regression equation established, taking all factors constant at zero, investment decision making as a result of these independent factors will be 5.205. The findings presented also shows that taking all other independent variables at zero, a unit increase in capital adequacy will lead to a 0.256 increase in the scores of financial performance among employees of NBK; a unit increase in credit risk will lead to a 0.156 increase in financial performance among employees of NBK, a unit increase in inflation will lead to a 0.059 increase in the scores of financial performance among employees of NBK; and a unit increase in interest rates will lead to a 0.226 increase in the score of financial performance among employees of NBK. This therefore implies that all the four variables have a positive relationship with financial performance with capital adequacy contributing most to the dependent variable.

### 5.3. Conclusion

From the research findings, the study concluded all the independent variables studied have significant effect on financial performance at NBK as indicated by the strong coefficient of correlation and a p-value which is less than 0.05. The overall effect of the analyzed factors was very high as indicated by the coefficient of determination. The overall P-value of 0.00 which is less than 0.05 (5%) is an indication of relevance of the studied variables, significant at the calculated 95% level of significance. This implies that the studied independent



variables namely capital adequacy, credit risk, inflation and interest rates have significant effect on financial performance of commercial banks.

#### 5.4. Recommendations

The study recommends the following:

1. That Central bank of Kenya should reduce cash ratio requirement from 20% to 5% to enable commercial banks to have more disposable funds to lend to earn interest income thus increase its profitability (Kealhofer, 2008).
2. That Central bank as the regulator should not increase capital requirement for existing banks but to apply capital requirement increase to new players in the banking industry (Kealhofer, 2008).
3. Those commercial banks should use other alternative to mitigate against inflation in the economy like use of derivatives.

#### 5.5. Limitation of the Study

The respondents took a lot of time in filling in the questionnaires therefore the researcher had to collect the already filled questionnaires to do the analysis because of the time constraints. This made the response rate not to be 100% as expected. The respondents were also not free to give personal information as they considered it of private nature but the researcher assured them the information will be treated confidentially and will be used purely for academic purposes.

#### 5.6. Suggestion for Further Research

This study focused on the factors influencing financial performance of commercial banks in Kenya, a case study of National Bank of Kenya, Coast region. Since only 94.7% of results was explained by the independent variables in this study, it is recommended that a study be carried out on other factors that affect financial performance, specifically, a study on relationship between behavioral factors and financial performance from across the country should be carried out in order to pick out other variables not covered in this study. The research should also be done in other banks and the results compared so as to ascertain whether there is consistency on factors influencing financial performance of commercial banks in Kenya.

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