EFFECT OF NON-INTEREST INCOME ON PROFITABILITY OF COMMERCIAL BANKS IN KENYA

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DECLARATION

I declare that this Research Project is my original work and has not been submitted for examination in any other university or institution of higher learning .

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D63/64687/2013

This Research Project has been submitted for examination with my approval as the University Supervisor

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DEDICATION

This project is dedicated to my family for their love, support and understanding when I was pursuing my project.

ABSTRACT

Non-interest income is seen an extra source of income for commercial banks which is essential to enhance profitability of commercial banks in Kenya. The study sought to determine the effect of non-interest income on profitability of commercial banks in Kenya. To achieve this objective the study used a descriptive survey. The population of the study constituted all the 43 commercial banks in Kenya. The data was gathered from financial statements and records. Data analysis was done using a regression model. The study found that non-interest income was positively related to profitability of commercial banks. Bank size and liquidity were also found to be statistically significant since their p-values were less than 5%. The correlation results were found there was a moderate correlation between Non-interest income and profitability of commercial banks. The study recommends that firms should offset the risk of doing business. The limitation of this study is that it used financial statements which do not give a complete picture of the activities and projection of commercial banks profitability because the financial statements are historical in nature and might not necessary reflect the actual needs of the researcher this might have affected the validity and reliability of data and thus impact negatively on the findings obtained.

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ABBREVIATIONS

ANOVA	Analysis of Variance
APT	Arbitrage Pricing Theory
ATM	Automated Teller Machine
CAPM	Capital Asset Pricing Model
CBK	Central Bank of Kenya
GDP	Gross Domestic Product
KCB	Kenya Commercial Bank
KNBS	Kenya National Bureau of Statistics
MPT	Modern Portfolio theory
ROA	Return on Assets
ROE	Return on Equity
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks play an instrumental role in the Kenyan economy and the financial system of any nation. The primary function of commercial banks is to form a bridge between the customers and financial assistance. As an imperative component of the financial system, commercial banks allocate funds from borrowers and investors in a well-organized manner that enables both parties, investors and banks gain profits. Notably, commercial banks also provide specialized non-financial and financial services. In this regard, banks help in improving the efficiency of the entire economy. In a nutshell, banks serve as a collection unit of investment capital in search of an optimum return. Banks can also engage in other functions in the macro economy, which can affect individual economic units like consumers in myriad ways (Wright, 2001).

Profitability of commercial banks in Kenya are from the intermediation process from instant interest from deposits, interest received due to loaning and other securities, and the net interest margins. However, in the past, commercial banks in Kenya progressively extended past the former revenue sources towards fee-earning, trading profit and loss, commissions, and other non-interest sources of income. The interest rate in Kenyan commercial banks has been relatively higher than other developing countries for example South Africa and Tanzania. However, Were and Wambua (2014), documents that interest when observed over a period from 1990s, a general decrease can be observed. There was an observable decline trend for various types of interest rates in the early 2000s for commercial banks.

While various studies address different issues relating to profitability in commercial banks in Kenya, none of these specifically focuses on the impact of non-interest income on the profitability of commercial banks. This study, therefore, seeks to add to Kenyan economic literature by investigating the effect of non-interest income on the profitability of commercial banks in Kenya. Precisely, it determines if non-interest income has taken a critical role in controlling profitability of the commercial banks, and if it has assisted in the improvement of the financial health of the commercial banks.

1.1.1 Non-interest Income

Financial Institutions charge fees that make available non-interest income as a way of creating revenue and ensuring profitability in the event of increased default rates. Bank's non-interest income is the proceeds mainly from service and penalty charges, asset sales and property leasing. Unlike interest income, this income is largely unaffected by economic and financial market cycles and is usually not controlled by law or regulation. The large financial institutions are able to make a substantial amount of monies through non-interest income, especially through service charges on accounts they hold. Non-interest income is among the significant factor influencing bank profitability according to (Bodla & Verma, 2007).

Banks in the past have been earning non-interest income through providing traditional banking services such as checking, trust, letter of credits and cash management. Of late, banks have been earning non-interest from new sources which can be highly traced from securitization of mortgage, credit cards and other loan products presents in commercial banks. Other sources are such as insurance and mutual fund sales. The recent growing development towards increasing non-interest income generating activities has been promoted by a number of factors like increased

competition, technological advancement and financial market integration, country's specific regulatory and legislative innovation (DeYoung & Roland, 2001).

An efficient bank should generate higher amounts of noninterest income. A well-managed bank should set its fees to fully exploit market demand, and will cross-sell additional fee-based products to a larger percentage of its core customer base. Thus, holding product mix and banking strategy constant, the intensity of noninterest income is likely to be a forward-looking signal of a bank's financial success. However due to new development like improvement of technology, competition, existences of interest forbidden society, deregulation then banks should not focus only on interest income activities thus diversification is encouraged. Findings by Mndeme (2015), confirmed that diversification is good for the banking sector profitability.

1.1.2 Profitability

A profitability measurement baseline is one of the most valued time-phased tools used by commercial banks to determine their financial health and growths. Profitability is the capability of a business to have a remainder of the income created after it pays all expenses directly related to the production. Profitability is core of any institution's long and short-term strategy and in today's global economic climate and regulatory environment. Achieving the profitability objective is a major concern for top-level management of banks and economic analysts as it has effects on economic growth in general. The set standard application of financial health enables the evaluation of the profitability to determine whether variances exist based on different non-interest factors (Taylor, 2008).

The most appropriate methods applied in the determination of profitability of a commercial bank is through ratio deliberation of historical financial data of specific

financial bank. One of such comparisons of the assessment is given through the analysis of returns on equity (ROE). Under the specific ROE tools of profitability determination, three main ratios are applied. Firstly, profit margin obtained from net income against sales. Secondly, asset turnover is an important reflection of the sales against assets relationship that can be used to demonstrate the performance and profitability of commercial banks. The other ROE tool is the financial leverage function that highlights the measure of property against shareholders' equity. Alternatively, another important profitability indicator usually applied in economics is the return on assets (ROA). ROA reflects actual performance that every investment unit has over a particular period. One of the two ways to obtain ROA is the multiplication of asset turnover with the profit margin that reflects performance (profit) with respect to total return element on assets (Higgins, 2001).

The central idea behind the study is find the nexus between non-interest and profitability of Kenyan commercial banks, which measures the potential improvement capabilities and relative efficiencies of commercial banks. Bank profits are explained by both internal and external determinants. The factors however, vary from bank to bank because of difference in shareholder and managerial decisions and activities. When analyzing the profitability of commercial banks, it is important to know that the level of profitability attained would depend on the variation of its determinants over time (Sharma & Gounder, 2012).

1.1.3 Non-Interest Income and Profitability

The management of any firm should be able to identify its strength and weakness, likewise exploit opportunities and tackle threats if it is determined to make profits. Literature on the consequence and the actual nexus of non-interest income on

profitability of commercial shows different results. According to Nguyen et al., (2015), banks with high non-interest income present lower risk than those with mainly interest income. Similarly, Saunders et al., (2014) found out that higher ratio of non-interest income to interest income is associated with a higher profitability across the banking sector and under different market regimes. Annual abnormal returns have more significant positive relation with changes in the non-interest component of bank earnings compared with changes in the interest component of earnings according to the findings of (Ebrahim & Hasan, 2008).

On the contrary, Stiroh (2006), concluded that banks most reliant on activities that generate non-interest income do not earn higher average equity returns, but are much more risky as measured by return volatility and market betas. The importance of bank profitability at both the micro and macro levels has made the topic on the factors that determine bank profitability of considerable interest (Athanasoglou et al., 2005).

1.1.4 Commercial Banks in Kenya

The banking sector in Kenya is an essential part of the economy and is among the major economy drivers. The banking industry entails Commercial Banks, Non-Bank Financial Institutions, Forex Bureaus and Deposit-taking Microfinance Institutions. In Kenya, the banking sector is governed by Companies Act, the Banking Act, the Central Bank of Kenya Act and the different guidelines issued by the Central Bank of Kenya. The Central Bank of Kenya's responsibility among others is to formulate and implement monetary policies in the banking sector. It is also responsible for determining of bank's liquidity, solvency and ensuring that the commercial banks operate efficiently.

The banking industry has grown and as at 31st December 2014, the banking sector comprised of the Central Bank of Kenya, as the regulatory authority, 44 banking institutions (43 commercial banks and 1 mortgage finance company), 8 representative offices of foreign banks, 9 Microfinance Banks, 2 Credit Reference Bureaus, 13 Money Remittance Providers and 87 Foreign Exchange (forex) Bureaus. Out of the 44 banking institutions, 30 were locally owned while 14 were foreign owned.

The financial review by the Central Bank of Kenya (CBK) in 2013 indicated a weak financial intermediation by the commercial banks. CBK also identified commercial banks as the primary financial intermediary in Kenya. The reason is that non-banking sectors are still weak and also due to underdevelopment of capital market in the other sectors (CBK, 2014). However, in the last half a decade, Kenya has realized a fast growth in attaining financial stability, controlled commercial bank regulations and economic security.

1.2 Research Problem

Firms' profitability is important to the managers of companies in Kenya today, especially in these times of intense competition and changing customer expectations. Company Managers have to find innovative ways to attract investors and remain in business and one of the ways is to be good to the stakeholders so that they do well. Banks with higher non-interest income, that is, noncore activities like investment banking, venture capital and trading activities tend to have a higher contribution to systemic risk than traditional banking whose only activities were deposit taking and lending (Brunnermeier, 2015),

In their study, Staikouras and Wood (2003), investigated the diversification effects of non-interest income on banks in 15 different European countries and concluded that

non-interest income is more volatile than interest income over time, they find negative correlations between these two income streams, which leads them to conclude that non-interest income tends to stabilize bank earnings. Mndeme (2015), results imply that the focus to non-interest income should be limited and encourage balanced participation on both noninterest income activities and interest income activities. Besides the study found that interest income has positive impact on profitability. DeYoung & Roland (2001), results suggested that the expansion into non-interest income improved the risk-return tradeoff at the average bank during the first part of our sample period, but worsened the risk return tradeoff during more recent years. In contrast, Stiroh (2006), concluded that banks most reliant on activities that generate non-interest income do not earn higher average equity returns

Surviving literature on the effects of non-interest income show mixed conclusions. Many studies which found out that increased share of non-interest income may adversely affect the returns did not even encourage increase in non-interest income but rather recommended that diversification should be considered as the best alternative to ensure good return on assets and equity. On the other hand studies that found a share of non-interest income to have positive impact on profitability advice against solely focusing on interest income activities but also other non-interest revenue sources. Some studies measure the relationship between non-interest income and financial performance and not specifically profitability. Different ratios have been used to measure profitability like return on equity, return on sales among others. These conclusions are mixed up and this study therefore, will bridge this void to specifically answer the question: What is the effect of non-interest income on profitability of commercial banks in Kenya?

1.3 Objective of Study

The objective of this study was to examine effects of non-interest income on profitability of commercial banks in Kenya.

1.4 Value of Study

The study shall be of great importance to academic institutions focusing on the banking sector in Kenya. It will add a knowledge base to existing literature on effects of non-interest income on the financial performance of commercial banks. It will also provide a platform for quality discussion and debates amongst academicians, policy makers, and professionals and provides a basis for further research.

The findings will also be useful to policy makers and regulators in the area of banking sector. This study will guide the government on how certain monetary and fiscal policies influence firm profitability and hence contribute in improvement of policy making. The study will also provide useful insights to CBK the regulator of commercial banks on how various legal, regulatory and procedural requirements could impact on the profitability of commercial bank in general as they endeavor to conform. In this way, the study findings will offer useful inputs to advise the review of the policy and legal framework.

The study will provide a reference to bank managers to be able to make sound decisions regarding non-interest income and risks associated in order to get profits. Investors will also be guided to make good investment decision in firms which have non-interest income sources. However with excess growing need for alternative investment options, these parties have a deep interest on the profitability.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will debate on theories, literature and empirical studies both internationally and locally on non-interest income and financial performance.

2.2 Theoretical Review

This section will discuss the theoretical foundations of non-interest income and financial performance that are found in literature. This study is grounded on Arbitrage Pricing Theory, Modern Portfolio Theory and Agency Theory.

2.2.1 Arbitrage Pricing Theory

Arbitrage Pricing Theory, first developed by Ross (1976) is an asset pricing theory that states that the anticipated investment return or financial assets can be modeled to form a linear correlation of different macroeconomic variables. The change in correlation extent is represented by a beta coefficient**.** Roses (1976) initiated the Arbitrage Pricing Theory to form an alternative to Capital Asset Pricing Model (CAPM) as a result of decreased satisfaction of applicability of CAPM on a theoretical and empirical basis. CAPM is measuring a single correlation between anticipated return and risk, using the beta, is based on the effectiveness of mean standard deviation of the market portfolio.

CAPM, derived from initial principles of expected utility theory is consistent with recognized empirical view, and there is a normal variability in asset prices. However, Ross (1976) asserted that the suppositions of fundamentally expected utility theory did not employ standard variability, but CAPM made distinct between non-diversifiable and diversifiable risks. CAPM's model is a linear model in which the

typical variation in returns is due to one variable, and the real returns deviate from the standard variable by an extra random disturbance. This results in the assumption that the model is composed of two parts, one being random and other systematic. However, there exists a possibility of diversifying the random component, leaving investors with systematic risk. In APT, there is at least two variables and one not being an actual market value. APT model maintains majority intuitive CAPM outcomes and is developed on linear return generating process as one principle, but does not use any utility proposition apart from monotonicity and concavity for greed and risk aversion.

Arbitrage Pricing Theory is essential to this study to determine the correlation between non-interest income and profitability of commercial banks in Kenya as it will give the opportunity to analyze variant variables. The strict testing of this model by Roll and Ross (1980), Chen, Roll and Ross (1986) as well as Lehmann and Modest (1988) makes it viable for this study.

2.2.2 Modern Portfolio Theory

The Modern Portfolio Theory was founded by Markowitz in 1952. The author proposed that majority of investors are usually cautious with their investments and so they take the smallest possible risk to get a highest possible return, optimizing return on the risk ratio. This theory emphasizes that investors should not base their judgments by only looking at the expected risk and return of an individual stock. It support investment in various stocks for benefits of diversifications and decrease in the volatility of the entire portfolio (Markowitz, 1959).

O'Neill (2000) argues that the Modern Portfolio theory presents investors with two aspects. One aspect is that history might be repeated, implying the employ of past data

in investment decision making. The second aspect is that not all assets fluctuate. The investors should, therefore, stop unity-grouping of assets and assumptions that they portray similar characteristics and so expectations. Among the importance of MPT is that it reduces volatility in the portfolio of particular stocks. Till the inception of MPT, the investors were not able to link stock portfolio to the associated risks. Portfolios were randomly initiated. Hagstrom (2001) asserts that before MPT, suppose the investor expected an increase in the price of a stock, it was added to the portfolio without further thinking. Markowitz (1959) developed the precise procedure that would give different theoretical best portfolios. Assuming an investor lists all collections with same risk levels. While the risk of the various securities is similar, but with variant returns, choosing best portfolio is simple, one with maximum performance.

The theory is essential in this study as it seeks to guide the researcher on optimization of the correlation between various risks and performance by composing portfolios of assets dictated by their individual returns, risks, and covariance or relationships with other assets. MPT develops a framework where, any anticipated return has different expected outcomes. The theory, therefore, guides the investor on ruling on investment portfolios.

2.2.3 Agency Theory

Jensen and Meckling (1976) define agency relationship as a contract whereby one party engages the other party to act on his or her behalf. Mitnick (1973) was responsible for creation of institutional theory of agency while Ross (1977) was responsible for origin of economic theory of agency but the fundamental concepts are the same. This theory is part of positivist group of theories obtained from financial

economics literature. The theory emphasizes that a firm entails a contract economic resource owners (managers) and the agents who are responsible for regulating the resources. The manager or principal agent is also charged with the responsibility of making decisions and controlling the agent in order to control efficiency and productivity.

The agency theory has been used in explaining financial performances of various organizations. The theory can help in explaining the connection between organization's management and organization owners who normally are shareholders. The organization managers hire or retain any agent based on given characterizes for instance talents, knowledge and experience. The management is normally expected to act in their capacity and interests to boost the financial performance based on the assets (Moldoveanu & Martin, 2001). The theory makes assumption that the managers and appointed agents will act rationally and that they are able to employ tactics to maximize on the returns. Also, agency theory is based on proposition that appointed agents have adverse knowledge and able to properly serve organization's interests and requirements.

Eck and Wierenga (2001) assert that through agency theory, the appointed agents independently decide to engage in agency relationships with the principals or managers with pre-assumptions that the relationship will not affect the agent's own interests. The engagement, however, obliges the agent to bind to legal and moral rights that safeguard managers and organization's interests through lawfully enforceable contract enter by the two parties.

The agency theory will be useful in this project since it will help in evaluating the relationships between the agents in various commercial banks, their obligations and

the manager's responsibilities. This will be with the aim of determining the suitable strategies to be used by the organizations in enhancing the relationship between the two parties, agents and managers, and maximizing profitability based on the assets.

2.3 Factors Affecting Bank Profitability

Bank profitability is influenced by both internal factors and external factors which management or shareholders of firms can't control. This section will debate a number of factors that affect bank profitability with empirical evidence.

2.3.1 Non-interest Income

Bank's non-interest income is the proceeds mainly from service and penalty charges, asset sales and property leasing. Commercial banks sources of income include interest income, non-interest income and other incomes. Interest income is also known as traditional source of income. Most commercial banks in Kenya rely significantly on traditional source of income. However this source of income has lost important regulatory protection as new competition has emerged from non-bank financial institutions which have significantly reduced interest income earned by commercial banks (Atellu, 2014).

In his study, Köhler et al., (2013), established that banks with a retail-oriented business model such as savings banks, cooperative banks and other retail-oriented banks become significantly more stable if they increase their share of non-interest income. On contrary, investment-oriented banks become significantly less stable so he recommends that larger and more investment-oriented banks should increase their share of interest income to become more stable. This shows that non-interest income affects bank profitability.

2.3.2 Capital Adequacy

Capital adequacy the ratio of total capital to total risk weighted assets. The Signaling Theory argues that there is a positive relationship between a bank`s profits and its level of capital. One of the indicators of bank`s profitability is capital adequacy. From the literature, this variable is measured by the ratio of capital and reserves of each commercial bank to total assets or as the ratio of equity to total assets of a bank. Generally banks with high capital ratio, other factors held constant will face relatively lower financial difficulties during general financial crisis within the economy and this will translate to high profits. Well capitalized banks are able to meet the capital requirements set by central bank while the excess can be used to provide loans (Onounga, 2014).

Guyo, (2013) in his study showed that bank characteristic variables such as interest spread, capital adequacy, size, and liquidity have positive and strong influence in the performance of commercial banks, while management efficiency and asset quality recorded strong and negative association to profitability. In the study of banks profitability for twelve countries selected from Europe, North America and Australia, Bourke (1989), observed a significant positive association between capital adequacy and bank profitability. This means that the higher the capital ratio the more profitable the bank will be.

2.3.3 Liquidity

Liquidity of a business is its ability to pay off its short-term debt obligations. It is measured by the ratio of net liquid assets to net liquid liabilities.. Liquidity has an impact on the profitability of banks. DeYoung and Roland (2001), explained that the reason why banks, and more generally financial intermediaries exist is so that can

they mitigate a host of problems that otherwise prevent liquidity from flowing directly from agents with excess liquidity (depositors) to agents in need of liquidity (borrowers). These problems arise because of informational asymmetries, contracting costs, and scale mismatches between liquidity suppliers and liquidity demanders.

The importance of liquidity goes beyond the individual bank as a liquidity shortfall at an individual bank can have systemic repercussions. When banks hold high liquidity, they do so at the opportunity cost of some investment, which could generate high returns. Literature has proven that a nexus exists between liquidity and profitability. Amankwaa et al.. (2014) concluded that customer deposits, exposure to risk and liquidity are common factors among banks in Ghana that affect profitability.

2.3.4 Bank Size

Bank size is measured by its assets. Commercial banks should make every effort to increase their size by diversifying their products through investing in for instance, in financial market and selling mutual funds in the market. Size of a firm in general is the speed and extent of growth that is ideal and this growth can be in terms of revenue, profits, assets or number of employees which are all essential for increased financial performance and profitability. Large firms are more likely to manage their working capitals more efficiently than small firms. Most large firms enjoy economies of scale and thus are able to minimize their costs and improve on their financial performance (Yuqi, 2007).

Almajali et al., (2012), argued that the size of the firm can affect its financial performance. However, for firms that become exceptionally large, the effect of size could be negative due to bureaucratic and other reasons. Onounga, (2014) in his analysis of internal determinants of Profitability of Kenya's Top Six Commercial

Banks revealed that bank size, capital strength, ownership, operations expenses, diversification do significantly influence profitability of the top six commercial banks.

2.3.5 Operational Efficiency

The operating efficiency of a business in relation to the efficient utilization of the assets is reflected in net profit margin.

In the banking industry, It will be measured as a ratio of total costs to total income. Although a high return margin reflects better performance, a lower margin does not automatically indicate a lower rate of return on assets turnover. Operational efficiency is the capability of a business to deliver quality commodities to customers in the most cost-effective manner possible. According to Kalluru & Bhat (2009), Operational efficiency is the proficiency of a corporation to curtail the unwelcome and maximize resource capabilities so as to deliver quality products and services to customers.

In his study, Njenga (2014), main findings are that income of commercial banks in Kenya is affected by micro and macroeconomic factors. His results show that among the microeconomic variables, managerial efficiency and operational efficiency are negatively and significantly related to income.

2.4 Empirical Review

The empirical review will discuss the studies in the recent past both internationally and locally on non-interest income and profitability

2.4.1 International Evidence

Köhler et.al (2013), analyzed the impact of banks' non-interest income share on risk in the German banking sector for the period between 2002 and 2010. Using linear and quantile regression estimators, they found out that the impact of non-interest income

on risk depends on the business model of a bank. Their study has two important varying implications. First, they indicate that it might be beneficial for retail-oriented banks to increase their share of non-interest income to become more stable. However, investment-oriented banks, in contrast, become significantly less stable if they increase their non-interest income share. Their results generally imply that banks are more stable if they have a more diversified income structure and depend neither heavily on interest nor on non-interest income. Second, the decomposition of non-interest income into fee and commission and trading income shows that impact on bank stability comes from fee and commission income.

Saunders et.al (2014), studied the relationship between non-interest income and bank performance, to answer the question: Is Banks' Increased Reliance on Non-Interest Income Bad? The study was based on a sample of 368,006 involving quarterly observations on 10,341 US banks. The study period was the years from 2002-2013. They found that a higher ratio of non-interest income to interest income is associated with a higher profitability across the banking sector and under different market regimes. Banks with a higher fraction of non-traditional income are also shown to have a lower insolvency risk as measured by the Z-score, and recovered faster after the 2007-09 crisis. Their results hold across bank size groups and are robust to the inclusion of bank fixed effects, bank size, and various measures of leverage and asset quality in the regressions.

Williams (2014), studied on the Impact of non-interest Income on Bank Risk in Australia. They concentrated on the relationship between bank revenue composition and bank risk in Australia, using data drawn from Australian bank confidential regulatory returns. This study found that those banks with lower levels of non-interest income and higher revenue concentration are less risky. Non-interest income is found

to be risk increasing, but it is proposed that some types of non-interest income may be risk reducing when bank specialization effects are considered. It is concluded that care must be taken when selecting the appropriate peers for benchmarking, to reflect difference in income composition.

Chiang et.al (2014), examined the non-interest income, profitability, and risk in banking industry: A cross-country analysis. The study used a bank accounting data for 22 countries in Asia over the period 1995–2009. This article applies the dynamic panel generalized method of moments technique to investigate the impacts of non-interest income on profitability and risk for 967 individual banks. The findings were that non-interest activities of Asian banks reduce risk, but do not increase profitability on a broad sample basis. Non-interest activities decrease profitability as well as increases risk for savings banks. On the other hand, non-interest activities raise risk for banks in high income countries, while increasing profitability or reducing risk for banks in middle and low income countries. Finally, our results reveal that the persistence of risk is greatly affected by bank specialization and a country's income level, as all risk variables present persistence from one year to the next

Amankwaa et al., (2014) in their study on the analysis of Non-Interest Income of Commercial Banks in Ghana, identifies and discusses some factors common with banks that engage in non-interest earning activities in Ghana. It was found that smaller banks are more involved in non-interest earning activities, relative to their larger counterparts. Higher interest income, customer deposits, exposure to risk and liquidity are also found to be common factors among banks in Ghana that concentrate more non -interest income generation. The Central Bank’s Prime rates also affect banking operations and is positively related to bank’s engagement in nontraditional activities. These results have implications for bank regulators, who must institute

regulations toward harmonizing the various sources of bank income as against likely exposures to risk.

2.4.2 Local Evidence

Murithi (2013) studied the effect of Revenue Diversification into Non-Interest Income on Financial Performance of Commercial Banks in Kenya. This research adopted an exploratory design where the population of interest was drawn from the five most profitable commercial banks in Kenya; KCB, Equity Bank, Barclays, Standard Chartered and Cooperative Bank. Stratified random sampling was used to select the sample, taking a sample of 30% from each stratum. The study used both primary data and secondary data. The questionnaires included structured and unstructured questions and was administered through drop and pick method to respondents who were the top, middle and low level managers in the organizations. Data was analyzed using descriptive statistics. The study established that all the banks in the study had diversified into non-interest income.

Guyo (2013), examines empirically the factors influencing the financial performance of Islamic versus conventional banks in Kenya. The period of his study was (2009 – 2012). The study employed causal comparative research design as the main approach to guide the study. A simple random sampling technique was used to select sample of two Islamic and eight conventional banks from a stratified groups, based on CBK weighted composite index of small and large banks. Data was analyzed using correlation and regression analysis and the results presented in graphs and tables. The study findings showed that bank characteristic variables such as interest spread, capital adequacy, size, and liquidity have positive and strong influence in the performance of commercial banks. On the impacts of the industry specific factors, the results was mixed; whereas the banking sector development variable proxy as credit

to private sector have a positive and insignificant influence on bank performance, the stock market capitalization indicator recorded negative and insignificant influence on banks profitability. Lastly, the study found that the macroeconomic determinants such as real GDP growth rate showed positive and strong association to banks profitability, while Inflation have negative and insignificant impacts on profitability.

Atellu (2014), investigated the determinants of non-interest income in Kenya's commercial banks. A panel data of 2003-2012 was used in this research paper. The main findings are that non-interest income of commercial banks in Kenya is affected by management efficiency, bank's size, technological development and macroeconomic factors. Bank size and management efficiency is positively and significantly related to non-interest income while ATM development, inflation and growth of gross domestic product are negatively and significantly related to non-interest income. He recommends that commercial banks should make every effort to increase their size by diversifying their products through investing in financial market and selling mutual funds in the market. To increase their equity to asset ratio banks should issue more shares through rights issue or post incorporation issue so as to diversify their investments towards non- interest income.

Onounga (2014), did an analysis of internal determinants of Profitability of Kenya's Top Six Commercial Banks. The period of study ran from 2008 to 2013. Generalized least squares method was used to estimate the impact of bank assets, capital, loans, deposits and assets quality on banks profitability. He used return on assets (ROA) as a measure of profitability. The findings revealed that bank size, capital strength, ownership, operations expenses, diversification do significantly influence profitability of the top six commercial banks. The result suggests that the Kenyan Government should set policies that encourage commercial banks to raise their assets and capital

base as this will enhance the performance of the sector. Another implication of the study is that commercial banks need to invest in technologies and management skills which minimize costs of operations as this will impact positively on their growth and survival.

Njenga (2014), set out to investigate the determinants of non-interest income in Kenya's commercial banks. He carries out an empirical analysis to determine the impact of bank specific characteristics, technological development and macroeconomic factors on commercial banks non- interest income. A panel data of2003-2012 is used in this research paper. The main findings are that non-interest income of commercial banks in Kenya is affected by management efficiency, bank's size, technological development and macroeconomic factors. Bank size and management efficiency is positively and significantly related to non-interest income while ATM development, inflation and growth of gross domestic product are negatively and significantly related to non-interest income.

2.5 Summary of Literature Review

The determinants of bank profitability have long been a major focus of banking research world over. The literature categorizes the determinants into internal or micro and external macro factors. In the light of the above literature review, it is evident that commercial banks both locally and internationally are not fully using their potential to increase the non-interest income although it is proposed that some types of non-interest income may be risky and others risk reducing when bank specialization effects are considered therefore, care must be taken when selecting the appropriate peers for benchmarking, to reflect difference in income composition.

Literature show mixed results on the effect of non-income interest on profitability. Saunders et.al (2014), found that a higher ratio of non-interest income to interest income is associated with a higher profitability across the banking sector and under different market regimes. Similarly, Köhler et.al (2013), found out that the impact of non-interest income on risk depends on the business model of a bank and they indicate that it might be beneficial for retail-oriented banks to increase their share of non-interest income to become more stable. In contrast, Chiang et.al (2014), findings were that non-interest activities of Asian banks reduce risk, but do not increase profitability on a broad sample basis. Non-interest activities decrease profitability as well as increases risk for savings banks. On the other hand, non-interest activities raise risk for banks in high income countries, while increasing profitability or reducing risk for banks in middle and low income countries Murithi, (2013). The growth of non-intermediation income activities suggests intermediation activities are becoming less important part of banking business strategies and strategically, banks have shifted their sales mix by diversifying in income sources. These contrasting findings motivate further investigations on the effect of non-interest income on profitability, specifically on commercial banks in Kenya to indorse the more comprehensive results.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This research methodology chapter highlights and explains the strategy used in gathering data and investigating the effects of non-interest income on profitability of commercial banks in Kenya. This section is comprised of research design, population, data collection techniques, sample, data analysis, analytical model, significance test and the relevance of the study.

3.2 Research Design

Research design is the overall plan used in collecting information useful in fulfilling research objectives (Hakim, 2000). According to the author, research design acts as a blueprint since it illustrates all the major parts of the research project and how the goals are achieved. The descriptive research design will be employed in this study. Descriptive research, according to Kothari (2004), is the statistical study that identifies and explains trends in the study population about the study topic. This is a design that illustrates the characteristics of a variable in the study population.

Descriptive research is used in this study since it tends to answer "what is the relationship" question. It also intensely uses descriptions as a method of data analysis which are typically grouped into patterns for analysis. Descriptive research method may be successfully used to identify the relationship between two variables, revealing summary statistics and always help in recognizing alteration needed (Richey & Klein, 2002). Appropriately, Ndichu (2014) and Ngigi (2009) successfully used descriptive research in their projects and so its applicability in this study.

3.3 Population

The target population is the particular group of objects, people or institution from which information is collected. Ngechu (2008), further defines populations group of people, services elements, or things that are under scrutiny. Mugenda and Mugenda (2003), illustrates a population as a set of objects, persons or institutions that have some common characteristics that can be generalized. These populations in this study are all the 43 commercial banks in Kenya as at December 2014 (see Appendix I).

3.4 Data Collection

Data collection is the gathering of information related to the research topic from the target population on selected variables, in an organized and objective-oriented manner. The collected data should enable the researcher answer the research questions and make inferences. This study used secondary data derived from reputable sources for instance Central Bank of Kenya (CBK), Kenya National Bureau of Statistics (KNBS) and annual reports of commercial banks. Mugenda and Mugenda, (2003), define the secondary data as the information already collected by other researchers on the same topic of study. This research covered years between 2010 and 2014 on the sampled commercial banks. The five years span was suitable to give enough information on the trend in the variables in determining the effects on non-interest on profitability of the commercial banks. The study collected data from 40 commercial banks in a period of 5 years which constitutes of 200 data points (40 multiply by five years). The data that was missing in the study period was denoted by 0 in the SPSS data sheet to ensure that all observations were captured.

3.5 Data Analysis

Data analysis is the method through which gathered information is evaluated using a defined strategy to make conclusions from the information (Mugenda and Mugenda, 2003). It involves cleaning, organizing and determining the relationships between variables using descriptive analysis. This study employed linear regression model of analysis, and so it will use analytical software to analyze collected data. Statistical Package for Social Sciences Version 21 (SPSS) was used in the analysis. The choice of linear regression was due to its ability to allow concurrent analysis of relationships between more than one variable. This study has five variables.

3.5.1 Analytical Model

The regression model to be used entailed five independent variables: Non-interest Income, Capital Adequacy, Liquidity, Bank Size and operational efficiency. The dependent variable will be the profitability of the commercial banks.

It will be as follows:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon$$

Where:

Y= Profitability of the commercial banks will be determined using Return on Asset (ROA). ROA is calculated by diving firm's annual earnings by its total assets.

X_1= Non-interest Income was calculated as the ratio of Non-interest income to total income.

X_2= Capital Adequacy this ration could not be adequately determined from the financial statements. The variable is measured as the ratio of total capital to total risk weighted assets.

X_3= Liquidity measured by current assets divided net current liabilities.

X_4= Bank Size measured by the log of total assets.

X_5= Operational efficiency, obtained by dividing net sales by total assets

α = Regression constant

ε = Error term normally distributed about the mean of zero.

$\beta_1\beta_{3\ldots}B_5$ will be the coefficients of the variation to determine the volatility of each variable to financial performance the in regression model.

3.5.2 Test of Significance

According to Robinson (2002), research validity is the degree to which study results is a real presentation of the trend in the study population. It entails how accurate the results map the existing patterns. The credible sources of information, CBK and KNBS will also boost reliability and credibility of the research.

The study will test statistical significance at 95% confidential level. The high significance level will check if the information collected honestly maps the trends in the study populations. The researcher used analysis of variance (ANOVA) to determine this significance level using the received data. If the researcher obtains a result with significance level falling within 95%, that will mean the data collected is a true representative of the study population.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

Chapter four covers the study response rate and then provides the descriptive statistics of the study variables, testing of the hypothesis. It also contains the results of the correlation analysis where inter-relationships among five study variables were examined. The findings will be presented in tables.

4.2 Response Rate

Out of the 43 licensed commercial banks in Kenya, the researcher managed to collect data from all the commercial banks. This represents 100% response rate which was considered acceptable.

4.3 Descriptive Statistics

Descriptive statistics has been used to show quantitative relationship between the study variables. The table below shows the mean, median, minimum, maximum and standard deviation values. The findings are as presented in the table 4.1 below:

Table 4.1: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	200	-.10	6.10	2.4079	2.04195
Non-interest Income	200	-.69	1.19	.5019	.25629
Bank Size	200	.00	18.63	14.4679	2.54085
Capital Adequacy	200	.00	1.01	.1818	.15226
Liquidity	200	.00	10.09	.7558	1.43420
Efficiency	200	.00	87.93	45.4756	19.50241
Valid N (listwise)	200				

Source: Research Findings

From the above findings, the mean value of the return on (ROA) assets is 2.41%, the standard deviation is 2.042. The noninterest income is 0.5% this means that most commercial banks in Kenya diversify their businesses into other lines that are not part of their core activities. The mean size of commercial banks in Kenya is 14.5%, this is a strong indication that most commercial banks have adequate resources and capacity drawn from their large customer base and a branch network to effectively diversify into other lines of business. The results revealed that capital adequacy of commercial banks is 0.18% and its standard deviation is .15%. This implied that most commercial banks promoted stability and efficiency of their financial system.

Further the findings revealed that the liquidity position of commercial banks was 7.6% which is slightly below the conventional rule of 2:1 and 1:1 for liquidity ratio. This was an indication that only a few commercial banks that were not able to meet their financial obligations on time. Further, the results observed that the level of efficiency of commercial banks was 45.5% which implies that commercial banks were efficient in their operations this contributed to increased profitability.

4.4 Correlation Analysis

The relationship between both the direction (positive or negative) and strength of the relationship between the variables was investigated using Pearson product-moment correlation coefficient. This was important in order to assess whether any relationship exists between the variables before carrying out further analysis. The classification employed is strong (0.7 and over), moderate (0.4 and less than 0.7) and weak (0 to less than 0.4). Correlation analysis was also used to determine the existence of multicollinearity between the independent variables. Multicollinearity exists when independent variables are highly correlated (r>=0.9) and tends to lead to a poor regression model.

Table 4.2: Correlation Analysis

	ROA	Noninterest income	Bank Size	Capital Adequacy	Liquidity	Efficiency
ROA	1					
Noninterest Income	.465	1				
Bank Size	.156	.088	1			
Capital Adequacy	.756	.705	.119	1		
Liquidity	.-315	-.173	.062	-.267	1	
Efficiency	.004	.370	-.172	.105	-.022	1

Source: Research Findings

As shown in table 4.2, there is a moderately positive correlation between Noninterest income and profitability of commercial banks as follows r=0.465. The results observed that there was no correlation between bank size and efficiency with profitability of commercial banks in Kenya. The results were as follows: r=0.156 and r=0.004. The study further revealed that there was a strong positive relationship between capital adequacy and profitability of commercial banks in Kenya, the results are as follow r=0.756. It was also observed that there was a moderate positive relationship between the level of liquidity and profitability of commercial bank. The results were as follows r= -0.315.

4.5 Regression Analysis and Hypothesis Testing

Regression analysis is a statistical process that is concerned with establishing the relationship between variables in a study. The study predicted a positive relationship between non interest income and profitability of commercial banks in Kenya. The findings are presented in the table 4.3 below.

Table 4.3: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.462[a]	.213	.193	1.83418

a. Predictors: (Constant), Efficiency, Non-interest Income, Liquidity, Bank Size, Capital Adequacy

Source: Research Findings

From the above findings, R represents multiple correlation its show a moderately strong correlation between the variables as follows R=.462. The coefficient of determination which is represented by R^2 is 21.3%. It shows the proportion of variance in the dependent variable (profitability of commercial banks) that is explained by the independent variables. With regard to the findings the independent variables explain 78.7% of the variability of the dependent variable.

4.4.1 Analysis of Variance

Analysis of variance was used to test whether the overall regression model used in this study was a good fit for the data. The findings are presented in table 4.4 below.

Table 4.4: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177.085	5	35.417	10.528	.000[b]
	Residual	652.657	194	3.364		
	Total	829.741	199			

a. Dependent Variable: ROA

b. Predictors: (Constant), Efficiency, Noninterest Income, Liquidity, Bank Size, Capital Adequacy

Source: Research Findings

The above results shows that the independent variables statistically significantly predict the dependent variable, F (5, 199) =10.528, $p<0.05$ which implies that the

regression model is a good fit of the data. These findings are consistent with the hypothesis of this study which predicted a positive relationship between noninterest and profitability of commercial banks in Kenya.

4.4.2 Model of Coefficients

The study did the tests of coefficient to find out the direction of the relationship between noninterest income and profitability of commercial banks in Kenya. The results obtained are provided in the table 4.5 below.

Table 4.5: Model of Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.636	.929		-.685	.494
	Non-interest Income	2.401	.562	.301	4.270	.000
	Bank Size	.139	.052	.173	2.677	.008
	Capital Adequacy	.554	.987	.041	.561	.575
	Liquidity	-.458	.093	-.321	-4.913	.000
	Efficiency	.001	.007	.014	.212	.832

a. Dependent Variable: ROA

Source: Research Findings

From the above results the following regression equation was obtained from the unstandardized beta coefficients as shown below:

$ROA = -.636 + 2.401X_1 + .139X_2 + .554X_3 + .001X_4 + e$

From the regression model obtained above, holding all the other factors constant, a unit increases in noninterest income results to a corresponding increase in ROA by 2.401. A unit increase in capital adequacy, bank size and efficiency of commercial banks results into a corresponding increase in ROA by 0.554, 0.139 and 0.001 respectively. This implies that holding all the factors constant a unit increase in one of

the independent variables results into a corresponding increase in the dependent variable which is return on assets.

Liquidity whose beta of the coefficient was found to be -0.458 was excluded from the regression model since it depicted a negative relationship with profitability of commercial banks. The results observed that the p-values of noninterest income, bank size and liquidity were found to be statistically significant since their p-values were less than 5% as follows: p=0.000, p=0.008 and p=0.000. Capital adequacy and efficiency were found to be statistically insignificant since their p-values were more than 5% as follows; p=.575 and p=.832.

4.5 Discussion and Findings

The findings concluded that most commercial banks have diversified their businesses into other lines of businesses that are part of their core activities. The findings concluded that most commercial banks were efficient and hence able to meet their financial obligations. The findings show that there was a moderately positive correlation between noninterest income and profitability of commercial banks. This correlation was found to be 0.465. The findings further revealed that there was no correlation between the bank size and efficiency in relation to commercial bank's profitability. The findings also revealed that capital adequacy was positively related to profitability of commercial banks. Further, the regression results above have concluded that the p-values of noninterest income, bank size and liquidity were found to be statistically significant since their p-values were less than 5%. Capital adequacy and efficiency were found to be statistically insignificant since their p-values were more than 5% as follows; p=.575 and p=.832.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussions drawn from the data findings analyzed and presented in the chapter four. The chapter is structured into summary of findings, conclusions, recommendations and areas for further research.

5.2 Summary of Findings

The objective of the study was to examine the effect of non-interest income on profitability of commercial banks in Kenya. The findings concluded that most commercial banks have diversified their businesses into other lines of businesses that are part of their core activities. Further, the findings indicate that the mean value of the ROA is 2.41% which signifies that commercial banks are performing relatively well especially those commercial banks that have high noninterest income. Bank size was also found to be 14.5% which implied that most commercial banks had adequate resources and capacity to invest in non-core activities to boost commercial bank's profitability. The study also concluded that most commercial banks were efficient and hence able to meet their financial obligations.

The findings also conclude that there was a moderately positive correlation between noninterest income and profitability of commercial banks. This correlation was found to be 0.465. The findings further revealed that there was no correlation between the bank size and efficiency in relation to commercial bank's profitability. The findings also revealed that capital adequacy was positively related to profitability of commercial banks. A positive moderate relationship was observed between the level of liquidity and profitability of commercial banks. The results were as follows r= -

0.315 and r=0.004. The regression results found a moderately strong correlation between the variables as follows R=.462. The coefficient of determination which is represented by R^2 is 21.3%. It shows the proportion of variance in the dependent variable (profitability of commercial banks) that is explained by the independent variables. The above findings are consistent with Saunders (2014) who concluded that there was a positive relationship between noninterest income and profitability.

The regression analysis found that the independent variables are statistically significant in predicting the dependent variable p=0.000 this implies that the regression model is a good fit of the data. These findings are consistent with the hypothesis of this study which predicted a positive relationship between noninterest and profitability of commercial banks in Kenya. The results from the model of coefficient, a unit increases in noninterest income results into a corresponding increase in ROA by 2.401. These findings conform to findings by Njenga (2014) in a study who concluded that noninterest income was positively related to profitability.

A unit increase in capital adequacy, bank size and efficiency of commercial banks results into a corresponding increase in ROA by 0.554, 0.139 and 0.001 respectively. This implies that holding all the factors constant a unit increase in one of the independent variables results into a corresponding increase in the dependent variable which is return on assets. The results observed that the p-values of noninterest income, bank size and liquidity were found to be statistically significant since their p-values were less than 5% as follows: p=0.000, p=0.008 and p=0.000. Capital adequacy and efficiency were found to be statistically insignificant since their p-values were more than 5% as follows; p=.575 and p=.832. These findings are supported by a study by Atellu (2014), investigated the determinants of non-interest

income in Kenya's commercial banks and concluded that non-interest income was positively related to profitability.

5.3 Conclusion

The study concludes that noninterest income is positively related to profitability of commercial banks in Kenya. This means that most commercial banks should practice diversification in order to boost their income and expand their business. This will enable commercial banks to minimize their risks since they have diverse sources of income.

5.4 Recommendation

To realize increased profitability by commercial banks in Kenya, they should practice corporate diversification in order to boost their income and grow their businesses. Corporate diversification acts as an extra source of income that the bank can harness and invest in capital projects. This helps commercial banks to mitigate risks since it has many sources of income.

The study recommends that commercial banks should work towards minimizing their operational expenses to boost profitability. This suggests that there is possibility for the commercial banks to increase their profits by putting more effort on proper costs control and operating efficiency. This can be achieved by finding ways of optimal utilization of bank resources during production of banking products and services.

The study suggests that government policies in Kenya should encourage commercial banks to raise their assets and capital base. Commercial banks need to invest on efficient management and in technologies that reduce costs of operations in order to enhance their performance. These results are very important to the commercial banks in Kenya, if they have to survive and grow.

The study further recommends that commercial banks should increase their foreign exchange trading by increasing the volume of foreign exchange transactions and ensuring that positive trade flows are maintained.

The study also recommends that commercial banks should look for more alternative sources of income other than their core activities an example is investing on government securities to earn more commission from treasury bonds and Treasury Bills.

5.5 Limitations

The study used multiple regression analysis due to the nature of the study, yet, it possesses assumptions which may not hold often. However, these assumptions were tested and found to be holding. The study utilized secondary sources of data for a period of five years (2010-2014). This data is historical in nature and might not necessary reflect the actual needs of the researcher this might have affected the validity and reliability of data and thus impact negatively on the findings obtained.

5.6 Suggestions for Further Research

A comparative study can be carried out to establish whether on interest income impacts positively on profitability in another sector other than commercial banks. Investment companies could be a probable area of interest in order to provide a rich base for comparison this might assist in drawing plausible conclusions based in concrete facts upon which reliable conclusions can be made. Areas of commonalities or unique factors can then be established. Future researchers should consider investigating the effect diversification on growth of commercial banks. The findings might be useful is guiding commercial banks to invest in diversification as a way of growing and expanding their business in a competitive market.

REFERENCES

Amankwaa, A., Anku-Tsede, O. & Senyo, B. (2014). Analysis of Non-Interest Income of Commercial Banks in Ghana. *International Journal of Academic Research in Accounting, Finance and Management Sciences* Vol.4, No. 4, ISSN: 2225-8329.

Atellu, A. R., (2014). *Determinants of non-interest income in Kenyans commercial Banks.*

Almajali, Y. A., Alamro, S. H., & Al-Soub, Y. Z. (2012). Factors Affecting the Financial Performance of Jordanian Insurance Companies Listed at Amman Stock Exchange. *Journal of Management Research*

Athanasoglou, Panayiotis & Brissimis, Sophocles & Delis, Matthaios, (2005). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *MPRA Paper* 32026.

Kalluru, S. & Bhat, K. (2009). Determinants of Cost Efficiency of Commercial banks in India. *ICFAI Journal of Bank Management*, 8(2), 32-50.

Bodla, B. S., & Verma, R. (2007). Determinants of profitability of banks in India: A multivariate analysis. *Journal of Services Research, 6*(2), 75–89.

Bourke, p. (1989). Concentration and other determinants of bank profitability in Europe. *North America and Australia.Journal of Banking and Finance*. 13, 65-79.

Brunnermeier, M. K, Dong, G. & Palia, D., (2015). Banks' Non-Interest Income and Systemic Risk. *Princeton Publication.*

Chen, N.F., R. Roll, & S.A. Ross, (1986). "Economic forces and the stock market", *Journal of Business*, 59, 383-403

Chiang, L.C., Shih-Jui, Y., & Chi-Hung, C. (2014). *Non-interest income, profitability, and risk in banking industry*: A cross-country analysis.

DeYoung, R., & Roland, K. P. (2001). Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Total Leverage Model. *Journal of Financial Intermediation*.

Ebrahim, A., & Hasan, I. (2008). The value relevance of product diversification in commercial banks. *Review of Accounting and Finance*, *7*(1), 24–37.

Eck, P. & Wieringa, R. (2001). An Investigation into Agency Requirements in e-business Information Systems. *Proceedings of the Third International Conference on Enterprise Information systems*, ICEIS Pp 1081-1085.

Eken, M. H. & Kale, S. (2010). Measuring bank branch performance using Data Envelopment Analysis (DEA): The case of Turkish bank branches. *African Journal of Business Management*.

Guyo, I. G., (2013). An empirical study of factors influencing financial performance of Islamic versus conventional banks in Kenya. *Unpublished MBA project,* University of Nairobi.

Hagstrom, R.G. Jr. (2001). The Essential Buffet: *Timeless Principles for the New Economy*. John Wiley & Sons, New York.

Hakim, C. (2000). Research Design: *Successful Designs for Social & Economic Research.* (2nd Ed.) London: Routledge.

Higgins, R. C. (2001). *Analysis of financial management.* New York, NY: Irwin/McGraw-Hill

Jensen, M.C., & Meckling, W.H. (1976). Theory of the firms: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 881-880.

Köhler, M., Düllmann, K., Herrmann, H. & Memmel, C. (2013). *Does non-interest income make banks more risky*? ISBN 97838 65589156

Kothari, C.R. (2004). Research methodology methods and techniques (Revised 2nd edition). New Delhi, India: *New Age international publishers*.

Locke, S. (1987). Performance Assessment Indexes and Capital Asset Pricing Models. *Journal of Property Finance*, vol (5)3, 230-249.

Markowitz, H.M. (1959). Portfolio Selection: *Efficient Diversification of Investment.* John Wiley & Sons, New York.

Mndeme, R.K., (2015). Impact of Non-Interest Income on Banking Performance In Tanzania. *International Journal of Economics, Commerce and Management*. Vol. III, Issue 5. ISSN 2348 0386

Moldoveanu, M., & Martin, R. (2001). Agency theory and design of efficient governance mechanisms. *Working Paper*. Rotman School of business.

Mugenda, O.M. & Mugenda, A.G. (2003). Research Methods, *Quantitative & Qualitative Approaches*, Acts Press, Nairobi.

Murithi, J. G. (2013). Effects of Revenue Diversification into Non-Interest Income on Financial Performance of Commercial Banks in Kenya (*A Case of Five Most Profitable Banks in Kenya*)

Ngechu. M. (2008). Understanding the research process and methods. *An introduction to research methods*. Acts Press, Nairobi.

Nguyen, T. C., Vo, D. V., & Nguyen, V. C. (2015). Risk and Income Diversification in the Vietnamese Banking System. *Journal of Applied Finance & Banking*, *5*(1), 93–109.

Njenga, E. (2014). Ddeterminants of non-interest income in Kenya's commercial banks. *Unpublished MBA project*, Kenyatta University

O'Neill, W. (2000). *Fundamentals of the Stock Market*. Black click, OH, USA: McGraw-Hill Professional Book Group.

Onuonga, S. M. (2014). The Analysis of Profitability of Kenya's Top Six Commercial Banks: Internal Factor Analysis. *American International Journal of Social Science* Vol. (3)5.

Richey, Rita, & James D. (2007). Design *and Development Research: Methods, Strategies, and Issues*. Mahwah, N.J: L. Erlbaum Associates. Print.

Roll, R. & S. A. Ross, (1980). An Empirical Investigation of the Arbitrage Pricing Theory. *Journal of Finance.* Vol (35), 1073-1103

Ross, S. A. (1977). The determination of financial structure: the incentive signaling approach. *Bell Journal of Economics and Management Science*, 8, 23-40.

Ross, S.A., (1976). The Arbitrage Theory of Capital Asset Pricing, *Journal of Economic Theory*, Vol (13), 341-360

Saunders, A., Schmid, M. M. & Walter, I. (2014). Non-Interest Income and Bank Performance: Is Banks' Increased Reliance on Non-Interest Income Bad? *Social science research network.*

Stiroh, K. J. (2004). Do Community Banks Benefit from Diversification? *Journal of Financial Economics*, *25*(2/3), 135

Taylor, J. (2008). *Project scheduling and cost control: Planning, monitoring and controlling the baseline*. Lauderdale.

Were, M., &, Wambua, J. (2014). What factors drive interest rate spread of commercial banks? Empirical evidence from Kenya. Volume 4, Issue 2, *Developments in the Financial Services Sector in Africa.*

Williams, B., (2014). The Impact of non-interest Income on Bank Risk in Australia. *Social science research network*

Wright, R. E. (2001). *Origins of Commercial Banking in America*, 1750-1800.

Yuqi, L. (2007). Determinants of Banks' Profitability and Its Implication on Risk Management Practices: *Panel Evidence from the UK.* The University of Nottingham.

APPENDICES

APPENDIX 1: LIST OF COMMERCIAL BANKS IN KENYA

1. ABC Bank Kenya
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank Kenya
6. CFC Stanbic Holdings
7. Chase Bank Kenya
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank of Kenya
11. Cooperative Bank of Kenya
12. Credit Bank
13. Development Bank of Kenya
14. Diamond Trust Bank
15. Dubai Bank Kenya
16. Eco bank Kenya
17. Equatorial Commercial Bank
18. Equity Bank
19. Family Bank
20. Fidelity Commercial Bank Limited
21. First Community Bank
22. Giro Commercial Bank
23. Guaranty Trust Bank Kenya
24. Guardian Bank
25. Gulf African Bank
26. Habib Bank
27. Habib Bank AG Zurich
28. Housing Finance Company of Kenya
29. I&M Bank
30. Imperial Bank Kenya
31. Jamii Bora Bank
32. Kenya Commercial Bank
33. K-Rep Bank
34. Middle East Bank Kenya
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank Kenya
40. Standard Chartered Kenya
41. Trans National Bank Kenya
42. United Bank for Africa
43. Victoria Commercial Bank

Source: https://www.cbk.co.ke

APPENDIX II: SECONDARY DATA FOR ALL THE COMMERCIAL BANKS

	Years	Non Interest Income (000)	TOTAL INCOME (000)	TOTAL EXPENSE (000)	PBT (000)	PAT (000)	Total Assets (000)	Capital (000)	TRWA
KCB	2014	16,190,969.00	47,376,415.00	25,014,660.00	22,361,755.00	15,878,978.00	376,969,401.00	71,210,388	338877072.00
	2013	11,296,488.00	40,297,079.00	22,550,888.00	17,746,191.00	12,426,674.00	323,312,454.00	61,198,568	272565071.00
	2012	10,647,319.00	38,441,479.00	22,685,588.00	15,755,891.00	8,434,449.00	304,112,307.00	44,925,281	197733995.00
	2011	12,094,497.00	33,371,259.00	19,289,393.00	14,081,866.00	9,838,337.00	282,493,553.00	39,920,045	192939432.00
	2010	9,887,901.00	28,386,282.00	16,848,749.00	11,537,533.00	8,818,860.00	223,024,556.00	35,280,236	152310598.00
African Banking Corporation	2014	466,927.00	1,666,608.00	1,348,079.00	318,529.00	258,145.00	21,438,729.00	2,945,088	17095614.00
	2013	469,992.00	1,559,987.00	981,719.00	578,268.00	424,125.00	19,639,370.00	1,873,323	12428995.00
	2012	506,599.00	1,381,911.00	824,666.00	557,245.00	429,803.00	19,070,779.00	1,738,837	12078548.00
	2011	463,044.00	1,215,662.00	700,196.00	515,466.00	373,392.00	12,506,895.00	1,599,163	9085928.00
	2010	393,791.00	1,086,307.00	605,887.00	480,420.00	342,228.00	10,296,561.00	1,393,687	6924382.00
Bank Of Africa Ltd	2014	950,876.00	3,256,097.00	3,052,431.00	203,666.00	144,111.00	62,211,641.00	8,244,176	51781484.00
	2013	1,066,051.80	3,200,903.40	2,172,599.80	1,028,303.60	755,684.60	52,683,299.00	5,587,106	43922680.00
	2012	731,367.00	2,371,943.00	1,735,927.00	636,016.00	473,743.00	48,957,925.00	4,547,069	34542845.00
	2011	534,012.00	1,904,866.00	1,350,316.00	554,550.00	432,725.00	38,734,220.00	4,302,853	26887646.00
	2010	606,837.00	1,495,470.00	1,010,993.00	484,477.00	355,258.00	26,699,124.00	2,682,339	17684430.00
Bank Of Baroda	2014	255,782.00	3,632,034.00	937,427.00	2,694,607.00	2,216,910.00	61,944,650.00	8,361,278	39069720.00
	2013	275,569.00	3,319,953.00	814,926.00	2,505,027.00	2,039,696.00	52,021,524.00	7,663,464	35458332.00
	2012	319,357.00	2,467,136.00	800,436.00	1,666,700.00	1,376,100.00	46,137,777.00	5,875,305	24951471.00
	2011	169,361.00	2,455,491.00	779,108.00	1,676,383.00	1,363,881.00	36,700,797.00	4,667,457	21812452.00
	2010	759,772.00	2,436,867.00	609,294.00	1,827,573.00	1,393,402.00	32,331,505.00	3,471,829	14707879.00
Bank Of India	2014	215,323.00	1,702,967.00	418,707.00	1,284,260.00	1,021,293.00	34,370,422.00	6,036,675	15316073.00
	2013	196,047.00	1,619,827.00	367,123.00	1,252,704.00	1,009,458.00	30,721,440.00	5,067,941	12205480.00
	2012	185,277.00	966,153.00	359,066.00	607,087.00	568,440.00	24876824	4,090,421	10095613.00
	2011	184,138.00	1,288,213.00	313,046.00	975,167.00	765,862.00	23,352,157.00	3,521,981	7588537.00
	2010	205,898.00	1,169,505.00	178,962.00	990,543.00	687,008.00	19,671,456.00	2,756,118	6373445.00
Barclays	2014	8,684,874.00	28,288,488.00	15,994,964.00	12,293,524.00	8,387,346.00	226,118,124.00	33,055,499	207154473.00
	2013	9,062,943.00	27,921,939.00	16,000,500.00	11,133,178.00	7,622,642.00	207,009,618.00	33,171,994	191652230.00
	2012	9,279,219.00	27,424,387.00	14,404,643.00	13,019,744.00	8,740,703.00	185,101,570.00	32,168,963	124840096.00
	2011	10,001,966.00	26,338,089.00	14,325,534.00	12,012,555.00	8,072,637.00	167,304,940.00	33,478,456	106928425.00
	2010	10,350,267.00	26,023,681.00	15,248,327.00	13,552,702.00	10,598,982.00	172,690,915.00	33,311,263	106928425.00
CFC Stanbic Bank	2014	7,957,177.00	16,339,133.00	8,947,937.00	7,391,196.00	5,478,696.00	171,347,152.00	29,249,849	138734535.00
	2013	8,267,003.00	15,776,400.00	8,771,384.00	7,005,016.00	4,958,986.00	170,726,460.00	24,556,836	119641083.00

	2012	7,422,738.00	13,920,609.00	9,208,975.00	4,711,634.00	2,909,384.00	133,378,182.00	21,230,982	83127304.00
	2011	4,669,023.00	10,685,546.00	7,557,174.00	3,128,372.00	1,922,884.00	140,086,550.00	15,356,064	80655431.00
	2010	4,463,022.00	8,603,170.00	6,499,187.00	2,103,983.00	1,477,453.00	107,138,602.00	12,313,611	76004024.00
Chase Bank	**2014**	2,398,541.00	9,080,213.00	5,778,364.00	3,301,849.00	2,316,601.00	107,112,469.00	10,376,478	67948090.00
	2013	1,353,439.00	6,219,661.00	3,968,450.00	2,251,211.00	1,569,905.00	76,568,930.00	7,086,398	47133294.00
	2012	1,266,159.00	3,965,850.00	2,649,740.00	1,316,110.00	904,370.00	49,105,498.00	4,981,816	37709363.00
	2011	773,442.00	2,581,566.00	1,731,636.00	849,930.00	602,246.00	36,513,015.00	2,842,578	22553942.00
	2010	639,885.00	1,737,970.00	1,202,888.00	535,082.00	381,392.00	21,858,603.00	1,699,566	11743653.00
CITI Bank Ltd	**2014**	2,863,550.00	7,387,297.00	3,241,930.00	4,145,367.00	2,443,063.00	79,397,808.00	18,056,884	66135845.00
	2013	3,381,740.00	7,577,582.00	2,593,307.00	4,984,275.00	2,998,585.00	71,242,659.00	15,785,600	44599896.00
	2012	4,123,350.00	9,496,141.00	2,267,565.00	7,228,576.00	4,428,587.00	69,579,795.00	17,224,816	41192490.00
	2011	3,698,073.00	6,815,644.00	2,013,757.00	4,801,887.00	2,942,221.00	74,646,417.00	15,680,430	49815932.00
	2010	2,343,758.00	4,734,278.00	1,855,743.00	2,878,535.00	1,731,114.00	62,069,592.00	12,738,208	35351818.00
Cooperative Bank of Kenya	**2014**	16,410,471.00	27,503,988.00	18,868,168.00	7,293,311.00	4,472,417.00	282,689,097.00	55,534,459	256510900.00
	2013	8,952,980.40	27,548,093.40	16,842,637.40	10,705,456.00	8,979,190.00	228,874,483.60	43,194,837	205151872.00
	2012	7,625,189.00	23,541,284.00	13,967,355.00	9,573,929.00	7,329,431.00	199,662,974.00	34,542,216	145187161.00
	2011	6,202,707.00	18,070,826.00	11,903,057.00	6,167,769.00	5,186,343.00	167,772,389.00	22,621,691	137792005.00
	2010	6,225,485.00	15,403,548.00	9,844,520.00	5,559,028.00	4,379,231.00	153,983,533.00	18,401,501	111233493.00
Commercial Bank of Africa	**2014**	4,420,244.00	10,594,857.00	6,072,957.00	5,107,940.00	3,774,555.00	175,808,828.00	21,705,108	121179833.00
	2013	3,614,787.00	9,126,325.00	4,662,583.00	4,463,742.00	3,476,822.00	124,881,964.00	10,926,609	81059876.00
	2012	3,111,661.00	7,725,934.00	3,727,761.00	3,998,173.00	2,640,547.00	100,455,558.00	10,063,197	62608323.00
	2011	2,671,519.00	6,268,102.00	3,283,631.00	2,984,471.00	1,640,008.00	83,283,368.00	8,037,960	55269596.00
	2010	2,672,266.00	6,004,740.00	3,309,819.00	2,694,921.00	1,870,873.00	63,591,642.00	6,028,147	41552724.00
Consolidated Bank of Kenya	**2014**	467,980.00	1,381,121.00	1,655,311.00	(274,190.00)	(281,632.00)	15,077,051.00	1,443,655	13155009.00
	2013	444,296.00	1,519,359.00	1,661,746.00	(142,387.00)	(109,108.00)	16,778,631.00	1,217,173	11253911.00
	2012	590,908.00	1,522,852.00	1,346,914.00	175,938.00	139,249.00	18,000,858.00	1,543,112	10268383.00
	2011	622,955.00	1,487,838.00	1,241,294.00	246,544.00	149,824.00	15,318,148.00	1,189,762	9402462.00
	2010	628,483.00	1,249,067.00	991,319.00	257,748.00	172,478.00	10,478,682.00	6,028,147	41552724.00
Credit Bank Limited	**2014**	137,277.00	686,548.00	776,930.00	(90,382.00)	(91,715.00)	8,864,537.00	1,164,536	6184951.00
	2013	130,911.00	650,295.70	577,850.80	72,444.90	52,795.90	7,308,854.70	1,256,251	4718695.00
	2012	131,956.00	533,760.00	452,968.00	80,792.00	69,669.00	6,407,485.00	1,203,455	3914190.00
	2011	176,500.00	508,445.00	457,164.00	51,281.00	47,073.00	5,394,064.00	964,848	3214684.00
	2010	184,468.00	473,732.00	440,120.00	33,612.00	33,433.00	4,530,094.00	917,775	2442409.00
Development Bank of Kenya	**2014**	103,788.00	707,881.00	389,475.00	318,406.00	219,948.00	16,954,227.00	17,343,702	6780387.00
	2013	100,894.00	650,003.00	375,966.00	274,037.00	188,578.00	15,580,630.00	1,639,909	6558088.00
	2012	113,774.00	383,495.00	279,797.00	103,698.00	71,953.00	13,417,095.00	1,633,705	6558088.00
	2011						11,523,037.00		5767748.00

		121,958.00	453,987.00	296,550.00	157,437.00	108,073.00		1,561,742	
	2010	125,877.00	526,084.00	290,079.00	236,005.00	160,222.00	10,649,758.00	1,453,669	5349098.00
Diamond Trust Bank	2014	2,102,166.00	10,944,704.00	4,637,632.00	6,307,072.00	4,152,438.00	141,175,794.00	25,064,558	132274406.00
	2013	1,993,364.00	9,841,680.00	4,275,284.00	5,566,396.00	4,057,897.00	114,136,429.00	18,020,720	87816864.00
	2012	1,905,795.00	8,653,082.00	3,983,419.00	4,669,663.00	3,068,693.00	94,511,818.00	13,510,704	68104177.00
	2011	1,719,817.00	6,436,220.00	3,187,746.00	3,248,474.00	2,246,892.00	77,453,024.00	9,718,306	57897786.00
	2010	2,129,905.00	5,565,072.00	2,693,261.00	2,871,811.00	2,058,146.00	58,605,823.00	7,972,638	43248851.00
Dubai Bank	2014	289,105.00	459,002.00	451,812.00	7,190.00	4,395.00	3,502,266.00	1,039,897	4767595.00
	2013	256,580.00	445,693.00	429,702.00	15,991.00	8,937.00	2,926,860.00	1,035,502	6022936.00
	2012	260,879.00	551,523.00	581,413.00	(29,890.00)	(23,040.00)	2,584,333.00	916,473	1977839.00
	2011	154,500.00	317,776.00	297,006.00	20,770.00	14,166.00	2,316,000.00	712,043	1788290.00
	2010	122,545.00	246,678.00	243,359.00	3,319.00	1,849.00	1,874,268.00	595,891	1669905.00
ECO Bank	2014	1,172,921.00	2,170,473.00	2,669,723.00	(499,252.00)	(320,213.00)	45,934,458.00	10,495,302	32967062.00
	2013	731,384.00	1,632,599.00	2,863,728.80	(1,231,129.80)	(881,890.80)	36,907,136.00	7,018,223	22968029.00
	2012	835,591.00	879,738.00	2,413,527.00	(1,533,789.00)	(1,055,754.00)	31,771,340.00	6,275,491	19302871.00
	2011	1,278,326.00	1,984,665.00	1,863,266.00	121,399.00	202,105.00	27,210,497.00	4,556,766	17810979.00
	2010	953,832.00	1,871,669.00	1,683,749.00	187,920.00	125,121.00	26,892,182.00	2,757,913	14264746.00
Equatorial Commercial	2014	475,304.00	1,394,581.00	1,855,179.00	(460,598.00)	(326,431.00)	16,589,359.00	1,441,786	13456863.00
	2013	250,277.00	1,078,782.00	926,329.00	152,453.00	55,650.00	15,562,475.80	1,485,309	1485309.00
	2012	191,407.00	534,537.00	1,190,537.00	(656,000.00)	(481,940.00)	14,108,996.00	1,339,418	10914842.00
	2011	352,700.00	744,304.00	673,123.00	71,181.00	72,341.00	12,926,901.78	1,152,015	8073635.76
	2010	338,162.00	634,085.00	667,597.00	(33,512.00)	(106,786.00)	10,398,805.00	886,367	6118168.00
Equity Bank	2014	15,006,825.00	41,166,394.00	21,054,812.00	20,111,582.00	16,835,990.00	276,115,727.00	46,551,986	268517818.00
	2013	12,047,746.00	35,737,510.00	17,504,638.00	18,232,872.00	12,641,836.00	238,194,354.00	44,151,201	187346170.00
	2012	9,763,050.00	31,874,668.00	15,815,061.00	16,059,607.00	10,996,839.00	215,829,300.00	46,192,443	203393753.00
	2011	9,906,472.00	25,467,002.00	13,363,488.00	12,103,514.00	9,773,857.00	176,910,996.00	27,633,462	127548066.00
	2010	9,137,141.00	20,193,666.00	10,881,849.00	9,311,817.00	7,554,376.00	133,889,997.00	25,320,413	90804610.00
Family Bank	2014	2,554,784.00	7,925,503.00	5,307,144.00	2,618,359.00	1,780,602.00	61,812,663.00	10,550,527	52067367.00
	2013	1,803,969.50	6,254,370.50	4,496,452.80	1,757,917.70	1,226,402.70	43,500,989.00	5,896,039	31126625.00
	2012	1,400,603.00	4,690,949.00	3,847,708.00	843,241.00	540,719.00	30,985,096.00	4,890,935	22210322.00
	2011	1,411,658.00	3,766,040.00	3,243,475.00	522,565.00	354,604.00	26,001,754.00	3,150,399	18519221.00
	2010	1,448,438.00	3,118,827.00	2,618,165.00	500,662.00	390,999.00	20,188,379.00	2,995,208	12757599.00
Fidelity Commercial Bank Ltd	2014	364,970.00	971,518.00	673,986.00	297,532.00	221,655.00	16,515,404.00	1,677,816	10230459.00
	2013	379,275.00	935,175.00	618,793.00	316,382.00	211,914.00	12,778,509.00	-	1485309.00
	2012	364,718.00	638,803.00	537,176.00	101,627.00	90,051.00	11,772,118.00	1,185,116	6409745.00
	2011	350,484.00	754,567.00	453,052.00	301,515.00	197,196.00	10,789,498.00	995,565	6547553.00

	2010	474,883.00	700,174.00	323,587.00	376,587.00	271,778.00	8,208,537.00	801,342	4582782.00
GT Bank Limited	**2014**	389,857.00	1,837,991.00	1,151,251.00	686,740.00	533,648.00	32,991,926.00	4,861,604	18750469.00
	2013	400,974.00	1,507,408.00	1,094,290.00	413,118.00	331,286.00	25,638,049.60	4,353,147	12892149.00
	2012	528,854.00	1,292,066.00	944,202.00	347,864.00	283,439.00	17,149,893.00	1,787,502	10601943.00
	2011	523,412.00	1,341,780.00	1,031,299.00	310,481.00	224,895.00	14,630,460.00	1,545,874	8132530.00
	2010	492,419.00	1,238,504.00	1,087,192.00	151,312.00	133,519.00	14,112,365.00	1,320,981	7743021.00
First Community Bank	**2014**	401,277.00	1,308,016.00	1,205,686.00	102,329.00	50,437.00	15,278,025.00	1,423,322	12652344.00
	2013	261,521.00	1,111,920.00	911,449.00	200,471.00	132,201.00	11,305,398.40	1,140,095	7702126.00
	2012	343,814.00	1,147,505.00	853,744.00	293,761.00	241,305.00	9,958,766.00	1,007,881	6397334.00
	2011	313,388.00	845,865.00	734,232.00	111,633.00	71,323.00	8,740,329.00	766,576	5402918.00
	2010	137,594.00	485,937.00	645,547.00	(159,610.00)	(97,507.00)	6,380,098.00	565,252	3918185.00
Giro Commercial Bank Ltd	**2014**	187,601.00	906,811.00	434,658.00	472,153.00	395,589.00	15,082,199.00	2,422,328	10185687.00
	2013	111,885.00	818,891.00	435,661.00	383,230.00	378,048.00	13,623,296.00	2,086,712	7211856.00
	2012	178,956.00	662,681.00	455,808.00	206,873.00	226,360.00	12,279,809.00	1,774,959	6014238.00
	2011	635,975.00	1,044,087.00	409,753.00	634,334.00	513,763.00	10,233,964.00	1,339,788	5386189.00
	2010	635,975.00	1,044,087.00	409,753.00	634,334.00	513,763.00	10,233,964.00	1,339,788	5386189.00
Guardian Bank Ltd	**2014**	157,526.00	1,013,989.00	636,316.00	377,673.00	261,251.00	14,570,598.00	1,755,138	10599749.00
	2013	150,799.00	885,074.00	501,323.00	383,751.00	275,335.00	12,834,687.00	1,493,885	8312390.00
	2012	142,680.00	635,958.00	412,569.00	223,389.00	153,610.00	11,745,364.00	1,248,646	7502185.00
	2011	175,532.00	628,084.00	458,344.00	169,740.00	116,606.00	8,836,279.00	1,064,940	5841265.00
	2010	201,105.00	487,170.00	375,532.00	111,638.00	75,233.00	8,031,214.00	948,334	4917263.00
Gulf African Bank	**2014**	370,003.00	1,921,941.00	1,305,483.00	616,458.00	402,196.00	19,749,862.00	3,146,683	23284797.00
	2013	325,727.00	1,611,734.00	1,178,034.00	433,700.00	285,477.00	16,053,971.00	2,685,926	14804171.00
	2012	275,962.00	1,454,258.00	1,080,449.00	373,809.00	242,221.00	13,561,818.00	1,561,398	10757374.00
	2011	260,294.00	1,056,571.00	901,194.00	155,377.00	95,335.00	12,915,174.00	1,319,177	9263569.00
	2010	268,403.00	856,874.00	809,834.00	47,040.00	73,894.00	9,594,061.00	1,223,812	7541689.00
HABIB Bank AG Zurich	**2014**	289,578.00	1,012,041.00	369,471.00	642,570.00	399,977.00	12,147,286.00	2,243,442	6036440.00
	2013	104,873.00	778,316.00	304,528.00	473,788.00	313,589.00	11009480	1,834,514	
	2012	116,297.00	748,259.00	336,453.00	411,806.00	250,021.00	9,702,223.00	1,489,806	2617547
	2011	116,059.00	546,795.00	293,120.00	253,675.00	162,152.00	8,721,781.00	1,228,822	3278775
	2010	159,353.00	507,939.00	260,320.00	247,619.00	159,415.00	8,127,135.00	1,027,114	2549957
HABIB Bank Limited	**2014**	114,201.00	768,208.00	236,447.00	531,761.00	318,526.00	9,449,365.00	1,941,527	5924163
	2013	100,362.00	749,996.00	249,742.00	500,254.00	318,631.00	8,078,122.00	1,660,266	4477494
	2012	91,860.00	679,518.00	223,396.00	456,122.00	286,030.00	7,014,395.00	1,348,270	3203544
	2011	90,333.00	461,645.00	190,660.00	270,985.00	166,013.00	5,860,509.00	1,062,240	3163162
	2010	61,183.00	392,765.00	157,563.00	235,202.00	149,357.00	5,425,541.00	896,228	2148080

Imperial Bank (K) Ltd	**2014**	1,140,431.00	5,476,930.00	2,788,345.00	2,688,585.00	2,064,491.00	56,599,361.00	6,633,618	43219474
	2013	1,036,211.00	5,203,288.00	2,709,534.00	2,493,754.00	1,853,994.00	43,006,228.00	3,752,061	20056689
	2012	1,069,397.00	3,955,203.00	2,002,155.00	1,953,048.00	1,492,606.00	34,589,609.00	3,752,061	20056689
	2011	867,142.00	3,409,773.00	1,778,082.00	1,631,691.00	1,197,382.00	25,617,616.00	3,071,900	14894439
	2010	623,122.00	2,726,389.00	1,478,528.00	1,247,861.00	896,056.00	19,399,089.00	2,369,428	11191899
I&M Bank	**2014**	3,550,353.00	11,859,434.00	4,110,309.00	7,749,125.00	5,618,877.00	137,299,354.00	22,863,031	121259710
	2013	2,342,979.00	9,296,211.00	3,236,394.00	6,059,817.00	4,194,435.00	110,315,682.00	18,547,074	97526473
	2012	2,252,547.00	7,183,713.00	2,462,172.00	4,721,541.00	3,362,893.00	91,519,622.00	12,109,223	69847651
	2011	2,029,184.00	6,684,624.00	2,227,293.00	4,457,331.00	3,094,619.00	76,903,272.00	11,244,472	60078832
	2010	1,795,324.00	4,961,387.00	1,956,904.00	3,004,483.00	2,117,401.00	62,552,113.00	8,924,256	44807199
Jamii Bora Bank Ltd	**2014**	361,984.00	945,490.00	849,221.00	96,268.00	19,686.00	13,117,892.00	2,273,279	8708542
	2013	202,767.00	591,023.00	500,949.20	90,073.80	93,886.80	7,010,322.70	1,447,217	5600338
	2012	131,814.00	341,193.00	288,453.00	52,740.00	52,331.00	3,479,656.00	1,337,501	1600495
	2011	39,731.00	146,316.00	183,348.00	(37,032.00)	(37,876.00)	2,070,009.00	771,094	697929
	2010	42,812.00	182,650.00	266,215.00	(83,565.00)	(84,119.00)	1,723,233.00	230,553	645983
K-Rep Bank	**2014**	734,554.00	2,373,057.00	1,643,997.00	729,061.00	514,043.00	15,798,777.00	2,378,872	11571533
	2013	532,581.40	1,930,720.40	1,373,932.40	556,788.00	359,917.20	13,199,240.00	1,851,985	8653563
	2012	398,117.00	1,708,502.00	1,402,292.00	306,210.00	196,078.00	9,546,050.00	1,491,788	6928934
	2011	518,244.00	1,614,875.00	1,358,933.00	255,942.00	173,364.00	9,318,716.00	1,315,043	6649967
	2010	378,295.00	1,252,326.00	1,141,810.00	110,516.00	50,638.00	7,670,050.00	1,141,402	5281063
Middle East Bank (K) Ltd	**2014**	125,760.00	397,036.00	320,752.00	76,284.00	68,627.00	5,936,601.00	1,227,488	3641064
	2013	117,681.00	394,436.00	313,156.00	81,280.00	71,249.00	5,765,799.00	1,165,068	3211606
	2012	114,783.00	299,195.00	252,474.00	46,721.00	44,342.00	5,869,715.00	1,115,259	3504247
	2011	137,495.00	332,621.00	240,161.00	92,460.00	94,196.00	4,639,160.00	1,079,887	2478393
	2010	272,603.00	432,136.00	226,616.00	205,520.00	140,709.00	4,018,428.00	1,005,964	1915114
National Bank of Kenya	**2014**	3,003,946.00	9,793,825.00	7,461,945.00	2,331,880.00	800,698.00	122,864,886.00	11,205,805	80433021
	2013	2,806,190.00	8,444,304.00	6,664,860.00	1,779,444.00	1,089,896.00	92,493,033.80	10,947,526	45332793
	2012	2,835,524.00	7,610,318.00	6,462,910.00	1,147,408.00	729,752.00	67,154,805.00	10,026,963	35280348
	2011	2,714,029.00	7,795,139.00	5,351,289.00	2,443,850.00	1,546,113.00	68,664,516.00	10,003,804	34286442
	2010	2,733,210.00	7,099,916.00	4,402,093.00	2,697,823.00	2,021,919.00	60,026,694.00	9,447,286	25590922
NIC Bank	**2014**	2,987,062.00	10,266,541.00	4,185,260.00	6,081,281.00	4,019,167.00	137,087,464.00	27,340,192	131044542
	2013	2,620,115.00	9,153,895.00	3,933,038.00	5,220,857.00	3,385,576.00	112,916,814.00	14,875,986	95219586
	2012	2,494,716.00	7,414,276.00	3,103,327.00	4,310,949.00	2,773,814.00	101,771,705.00	12,464,653	81972858
	2011	1,979,478.00	5,927,829.00	2,567,227.00	3,360,602.00	2,533,048.00	73,581,321.00	9,620,841	60555497
	2010	1,520,289.00	4,672,453.00	2,256,111.00	2,416,342.00	1,730,397.00	54,776,432.00	7,282,754	46954840
Oriental Commercial Bank	**2014**	186,870.00	493,136.00	409,044.00	84,092.00	71,947.00	7,857,515.00	1,449,721	1449721

	2013	198,170.00	497,931.00	319,988.80	177,942.20	139,970.20	7,006,527.80	1,371,905	4510228
	2012	267,741.00	388,824.00	275,259.00	113,565.00	94,466.00	6,219,906.00	1,188,209	3939017
	2011	259,174.00	453,853.00	261,258.00	192,595.00	152,005.00	5,030,092.00	1,113,281	3155828
	2010	271,832.00	418,470.00	245,540.00	172,930.00	145,771.00	4,558,349.00	1,003,628	2788904
Paramount Universal Bank	**2014**	96,206.00	433,846.00	297,016.00	136,830.00	123,805.00	10,402,326.00	1,375,581	5404156
	2013	18,065.00	328,497.00	229,390.00	99,107.00	87,949.00	8,028,877.00	1,219,805	2914374
	2012	184,842.00	309,741.00	219,914.00	89,827.00	110,247.00	7,254,561.00	1,121,117	2382157
	2011	107,594.00	301,555.00	188,754.00	112,801.00	100,470.00	4,727,237.00	1,025,507	1899555
	2010	333,822.00	486,104.00	205,231.00	280,873.00	252,245.00	4,419,806.00	785,038	1654829
Prime Bank Limited	**2014**	973,554.00	3,945,368.00	1,647,688.00	2,297,680.00	1,736,019.00	54,917,674.00	6,722,219	40099676
	2013	905,073.00	3,402,223.00	1,509,344.00	1,892,879.00	1,440,772.00	49,460,889.00	4,951,234	26914309
	2012	957,573.00	2,468,156.00	1,307,494.00	1,160,662.00	954,719.00	43,462,888.00	3,815,826	22411943
	2011	663,297.00	2,287,445.00	1,206,754.00	1,080,691.00	834,424.00	35,184,677.00	3,242,241	19640904
	2010	679,830.00	1,806,420.00	1,036,790.00	769,630.00	606,413.00	32,444,424.00	2,257,817	16410633
StanChart	**2014**	8,114,556.00	25,994,438.00	11,694,626.00	14,299,812.00	10,404,276.00	222,635,993.00	36,288,187	183104659
	2013	7,026,008.00	23,763,767.00	10,447,562.00	13,316,205.00	9,236,237.00	220,523,869.00	30,720,523	147682332
	2012	6,747,530.00	20,963,651.00	9,445,069.00	11,518,582.00	8,043,250.00	195,492,999.00	23,928,709	132651732
	2011	6,084,606.00	16,196,205.00	7,945,365.00	8,250,840.00	5,834,006.00	164,181,638.00	16,413,785	114759981
	2010	5,731,930.00	14,130,994.00	6,463,462.00	7,667,532.00	5,366,188.00	142,880,029.00	11,399,981	81936011
Transnational Bank of Kenya	**2014**	184,547.00	962,158.00	771,342.00	190,816.00	125,712.00	10,239,922.00	1,914,759	8823857
	2013	215,692.00	914,183.00	688,971.00	225,212.00	158,118.00	9,657,867.00	1,869,048	5956230
	2012	414,941.00	966,670.00	644,616.00	322,054.00	213,393.00	8,801,382.00	1,824,561	4717588
	2011	308,575.00	841,452.00	546,527.00	294,925.00	202,577.00	7,286,906.00	1,737,520	3706961
	2010	294,874.00	642,615.00	484,031.00	158,584.00	142,343.00	4,761,853.00	1,540,731	2181770
United Bank of Africa	**2014**	181,359.00	246,045.00	577,443.00	(331,398.00)	(282,038.00)	4,755,787.00	1,138,962	1943047
	2013	124,771.50	246,363.30	524,087.80	(277,724.50)	(272,089.50)	3,709,630.00	1,059,034	2258460
	2012	123,584.00	145,627.00	542,566.00	(396,939.00)	(287,389.00)	2,923,810.00	1,218,857	1677552
	2011	207,435.00	208,428.00	470,302.00	(261,874.00)	(230,607.00)	3,206,396.00	728,193	1040232
	2010	11,395.00	50,935.00	263,460.00	(212,525.00)	(155,385.00)	2,363,053.00	889,385	1092613
Victoria Commercial Bank	**2014**	217,328.00	1,069,124.00	434,239.00	634,885.00	464,345.00	17,244,092.00	2,755,840	14375861
	2013	202,939.00	983,216.00	396,834.00	586,382.00	431,903.00	13,644,242.00	2,373,200	11960064
	2012	157,494.00	817,292.00	326,408.00	490,884.00	350,532.00	10,322,819.00	2,072,409	8257803
	2011	130,657.00	601,511.00	271,824.00	329,687.00	230,250.00	7,645,235.00	1,269,448	5772373
	2010	152,713.00	523,396.00	212,464.00	310,932.00	214,774.00	6,215,384.00	1,099,070	4676806

APPENDIX III: ANALYZED DATA: SPSS DATA SHEET

	Years	Liquidity	Efficiency Ratio(CIR)	TC / TRWA RATIO	NON INTEREST INCOME/TOTAL INCOME	ROA =PAT/ TOTAL ASSETS
KCB	2014	0.313	53%	21%	34%	4%
	2013	0.333	56%	22%	28%	4%
	2012	0.355	59%	23%	28%	3%
	2011	0.313	58%	21%	36%	3%
	2010	0.307	59%	23%	35%	4%
African Banking Corporation	2014	0.306	81%	17%	28%	1%
	2013	0.38	63%	15%	30%	2%
	2012	0.425	60%	14%	37%	2%
	2011	0.3464	58%	18%	38%	3%
	2010	0.41	56%	20%	36%	3%
Bank Of Africa Ltd	2014	0.283	94%	16%	29%	0%
	2013	0.345	68%	13%	33%	1%
	2012	0.256	73%	13%	31%	1%
	2011	0.261	71%	16%	28%	1%
	2010	0.42	68%	15%	41%	1%
Bank Of Baroda	2014	0.6	26%	21%	7%	4%
	2013	0.606	25%	22%	8%	4%
	2012	0.558	32%	24%	13%	3%
	2011	0.492	32%	21%	7%	4%
	2010	0.651	25%	24%	31%	4%
Bank Of India	2014	0.742	25%	39%	13%	3%
	2013	0.752	23%	42%	12%	3%
	2012	0.659	37%	41%	19%	2%
	2011	0.785	24%	46%	14%	3%
	2010	0.806	15%	43%	18%	3%
Barclays	2014	0.442	57%	16%	31%	4%
	2013	0.42	57%	17%	32%	4%
	2012	0.468	53%	26%	34%	5%
	2011	0.425	54%	31%	38%	5%
	2010	0.541	59%	31%	40%	6%
CFC Stanbic Bank	2014	0.414	55%	21%	49%	3%
	2013	0.679	56%	21%	52%	3%
	2012	0.464	66%	26%	53%	2%
	2011	0.378	71%	19%	44%	1%
	2010	0.368	76%	16%	52%	1%
Chase Bank	2014	0.464	64%	15%	26%	2%

	2013	0.405	64%	15%	22%	2%
	2012	0.434	67%	13%	32%	2%
	2011	0.472	67%	13%	30%	2%
	2010	0.424	69%	14%	37%	2%
CITI Bank Ltd	2014	0.798	44%	27%	39%	3%
	2013	0.63	34%	35%	45%	4%
	2012	0.82	24%	42%	43%	6%
	2011	0.63	30%	31%	54%	4%
	2010	0.69	39%	36%	50%	3%
Cooperative Bank of Kenya	2014	0.338	69%	22%	60%	2%
	2013	0.326	61%	21%	32%	4%
	2012	0.358	59%	24%	32%	4%
	2011	0.272	66%	16%	34%	3%
	2010	0.4249	64%	17%	40%	3%
Commercial Bank of Africa	2014	0.34	57%	18%	42%	2%
	2013	0.4112	51%	13%	40%	3%
	2012	0.4762	48%	16%	40%	3%
	2011	0.272	52%	15%	43%	2%
	2010	0.4471	55%	15%	45%	3%
Consolidated Bank of Kenya	2014	0.361	120%	11%	34%	-2%
	2013	0.275	109%	11%	29%	-1%
	2012	0.474	88%	15%	39%	1%
	2011	0.4495	83%	13%	42%	1%
	2010	0.33	79%	15%	50%	2%
Credit Bank Limited	2014	0.322	113%	19%	20%	-1%
	2013	0.367	89%	27%	20%	1%
	2012	0.489	85%	31%	25%	1%
	2011	0.276	90%	30%	35%	1%
	2010	0.556	93%	38%	39%	1%
Development Bank of Kenya	2014	0.338	55%	256%	15%	1%
	2013	0.386	58%	25%	16%	1%
	2012	0.46	73%	25%	30%	1%
	2011	0.413	65%	27%	27%	1%
	2010	0.4	55%	27%	24%	2%
Diamond Trust Bank	2014	0.356	42%	19%	19%	3%
	2013	0.326	43%	21%	20%	4%
	2012	0.38	46%	20%	22%	3%
	2011	0.357	50%	17%	27%	3%
	2010	0.358	48%	18%	38%	4%
Dubai Bank	2014	0.215	98%	22%	63%	0%

	2013	0.215	96%	17%	58%	0%
	2012	0.241	105%	46%	47%	-1%
	2011	0.339	93%	40%	49%	1%
	2010	0.495	99%	36%	50%	0%
ECO Bank	2014	0.399	123%	32%	54%	-1%
	2013	0.318	175%	31%	45%	-2%
	2012	0.4	274%	33%	95%	-3%
	2011	0.41	94%	26%	64%	1%
	2010	0.58	90%	19%	51%	0%
Equatorial Commercial	2014	0.2782	133%	11%	34%	-2%
	2013	0.3461	86%	100%	23%	0%
	2012	0.3794	223%	12%	36%	-3%
	2011	0.3233	90%	14%	47%	1%
	2010	0.3373	105%	14%	53%	-1%
Equity Bank	2014	0.304	51%	17%	36%	6%
	2013	0.34	49%	24%	34%	5%
	2012	0.44	50%	23%	31%	5%
	2011	0.37	52%	22%	39%	6%
	2010	0.4	54%	28%	45%	6%
Family Bank	2014	0.408	67%	20%	32%	3%
	2013	0.365	72%	19%	29%	3%
	2012	0.37	82%	22%	30%	2%
	2011	0.282	86%	17%	37%	1%
	2010	0.4496	84%	23%	46%	2%
Fidelity Commercial Bank Ltd	2014	0.25	69%	16%	38%	1%
	2013	0.3461	66%	0%	41%	2%
	2012	0.343	84%	18%	57%	1%
	2011	0.306	60%	15%	46%	2%
	2010	0.372	46%	17%	68%	3%
GT Bank Limited	2014	0.493	63%	26%	21%	2%
	2013	0.65	73%	34%	27%	1%
	2012	0.44	73%	17%	41%	2%
	2011	0.48	77%	19%	39%	2%
	2010	0.48	88%	17%	40%	1%
First Community Bank	2014	0.296	92%	11%	31%	0%
	2013	0.287	82%	15%	24%	1%
	2012	0.4	74%	16%	30%	2%
	2011	0.48	87%	14%	37%	1%
	2010	0.4	133%	14%	28%	-2%
Giro Commercial Bank Ltd	2014	0.517	48%	24%	21%	3%
	2013	0.505	53%	29%	14%	3%

	2012	0.5505	69%	30%	27%	2%
	2011	0.438	39%	25%	61%	5%
	2010	0.438	39%	25%	61%	5%
Guardian Bank Ltd	2014	0.344	63%	17%	16%	2%
	2013	0.334	57%	18%	17%	2%
	2012	0.365	65%	17%	22%	1%
	2011	0.28	73%	18%	28%	1%
	2010	0.391	77%	19%	41%	1%
Gulf African Bank	2014	0.287	68%	14%	19%	2%
	2013	0.3461	73%	18%	20%	2%
	2012	0.2898	74%	15%	19%	2%
	2011	0.38	85%	14%	25%	1%
	2010	0.289	95%	16%	31%	1%
HABIB Bank AG Zurich	2014	0.848	37%	37%	29%	3%
	2013	0.824	39%	37%	13%	3%
	2012	0.863	45%	57%	16%	3%
	2011	0.734	54%	37%	21%	2%
	2010	0.788	51%	40%	31%	2%
HABIB Bank Limited	2014	0.606	31%	33%	15%	3%
	2013	0.63	33%	37%	13%	4%
	2012	0.6302	33%	42%	14%	4%
	2011	0.779	41%	34%	20%	3%
	2010	0.8653	40%	42%	16%	3%
Imperial Bank (K) Ltd	2014	0.442	51%	15%	21%	4%
	2013		52%	19%	20%	4%
	2012	0.393	51%	19%	27%	4%
	2011	0.336	52%	21%	25%	5%
	2010	0.288	54%	21%	23%	5%
I&M Bank	2014	0.3052	35%	19%	30%	4%
	2013	0.3402	35%	19%	25%	4%
	2012	0.3546	34%	17%	31%	4%
	2011	0.3832	33%	19%	30%	4%
	2010	0.4347	39%	20%	36%	3%
Jamii Bora Bank Ltd	2014	0.494	90%	26%	38%	0%
	2013	0.424	85%	26%	34%	1%
	2012	0.62	85%	84%	39%	2%
	2011	1.46	125%	110%	27%	-2%
	2010	0.278	146%	36%	23%	-5%
K-Rep Bank	2014	0.368	69%	21%	31%	3%
	2013	0.311	71%	21%	28%	3%
	2012	0.28	82%	22%	23%	2%
	2011	0.29	84%	20%	32%	2%

	2010	0.3	91%	22%	30%	1%
Middle East Bank (K) Ltd	2014	0.3936	81%	34%	32%	1%
	2013	0.23	79%	36%	30%	1%
	2012	0.379	84%	32%	38%	1%
	2011	0.3229	72%	44%	41%	2%
	2010	0.424	52%	53%	63%	4%
National Bank of Kenya	2014	0.315	76%	14%	31%	1%
	2013	0.42	79%	24%	33%	1%
	2012	0.3	85%	28%	37%	1%
	2011	0.34	69%	29%	35%	2%
	2010	0.41	62%	37%	38%	3%
NIC Bank	2014	0.3308	41%	21%	29%	3%
	2013	0.2854	43%	16%	29%	3%
	2012	0.3322	42%	15%	34%	3%
	2011	0.2741	43%	16%	33%	3%
	2010	0.3038	48%	16%	33%	3%
Oriental Commercial Bank	2014	0.426	83%	100%	38%	1%
	2013	0.44	64%	30%	40%	2%
	2012	0.45	71%	30%	69%	2%
	2011	0.44	58%	35%	57%	3%
	2010	0.42	59%	36%	65%	3%
Paramount Universal Bank	2014	0.566	68%	25%	22%	1%
	2013	0.63	70%	42%	5%	1%
	2012	0.68	71%	47%	60%	2%
	2011	0.58	63%	54%	36%	2%
	2010	0.6	42%	47%	69%	6%
Prime Bank Limited	2014	0.375	42%	17%	25%	3%
	2013	0.424	44%	18%	27%	3%
	2012	0.475	53%	17%	39%	2%
	2011	0.423	53%	17%	29%	2%
	2010	0.488	57%	14%	38%	2%
StanChart	2014	0.46	45%	20%	31%	5%
	2013	0.38	44%	21%	30%	4%
	2012	0.39	45%	18%	32%	4%
	2011	0.34	49%	14%	38%	4%
	2010	0.55	46%	14%	41%	4%
Transnational Bank of Kenya	2014	0.404	80%	22%	19%	1%
	2013	0.496	75%	31%	24%	2%
	2012	0.6	67%	39%	43%	2%
	2011	0.67	65%	47%	37%	3%

	2010	0.77	75%	71%	46%	3%
United Bank of Africa	2014	0.993	235%	59%	74%	-6%
	2013	0.966	213%	47%	51%	-7%
	2012	1.128	373%	73%	85%	-10%
	2011	1.918	226%	70%	100%	-7%
	2010	1.348	517%	81%	22%	-7%
Victoria Commercial Bank	2014	0.326	41%	19%	20%	3%
	2013	0.308	40%	20%	21%	3%
	2012	0.384	40%	25%	19%	3%
	2011	0.36	45%	22%	22%	3%
	2010	0.3	41%	24%	29%	3%