EFFECT OF OWNERSHIP, CAPITAL AND COST STRUCTURES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

ELIUD KAGEMA MAINA

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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A Research Report Submitted to the Chandaria Business School of Business in partial Fulfilment of the Requirement for the Degree of Masters in Business Administration (MBA)

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SUMMER 2017

STUDENT'S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed…………………………..   Date……………………………….

Eliud Kagema Maina (646971)

This project has been presented for examination with my approval as the appointed supervisor.

Signed………………………….   Date…………………………….…..

Dr. Elizabeth Kalunda

Signed…………………………..   Date……………………………….

Dean, Chandaria School of Business

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ABSTRACT

Financial performance of commercial banks is very important since banks play an important financial intermediation role in the economy. One of the determinants of commercial banks' financial performance is the banks' ownership structure, the capital structure, and the cost structure and this was the focus of the study. The objective of the study sought to address the following three research questions in the context of Kenya; How does the ownership structure of banks affect financial performance? How does the capital structure of commercial banks affect the bank performance, and finally, how does the cost structure of the bank affect financial performance? ROA and ROE was used to assess financial performance. This research applied descriptive and inferential statistics to determine the relationship between the independent variables and the dependent variables of the three objectives. A descriptive research design was applied to a population of forty two commercial banks operating in Kenya. Secondary data was used and was collected from banks' published annual reports and financial reports. Regression and correlation analyses was used and based on the association among the variables. The software SPSS was the analysis tool for this study. The study aimed to bridge the knowledge gap on some of the elements influencing financial performance and profitability of commercial banks in Kenya and seeks to be of benefit to the commercial banks, regulatory bodies, government, and investors. The study findings indicated that ownership structure has a significant impact on both return on assets and return on equity. Private-public ownership had a significant impact on financial performance but foreign-local ownership did not have a significant impact on financial performance. Capital structure also had a significant impact on both return on assets and return on equity, with debt-to-total assets ratio having a significant effect on return on assets, but had no significant effect on debt-to-total equity ratio. With regards to the third objective, the study found that cost structure had a significant effect on both return on assets and return on equity, with loan loss-to-income ratio the only variable having a significant effect on return on assets, while all the three variables, had a significant effect on the return on equity. The study recommended that proper management guidelines should be provided for both public and private commercial banks since private-managed banks perform better than public-managed. Proper governance and use of Acts such as the Sarbanes-Oxley Act and the Cadbury report are important for management of banks. The study also recommended that individual banks should identify their optimal level of external debt by analysing the costs and the benefits in order to maximize profitability. Finally, the study

recommended that operational costs should be minimized without interfering with the quality of service, and proper vetting of loan applicant should be done to minimize loan losses.

ACKNOWLEDGMENT

DEDICATION

This project is dedicated to my wife Anne Kagema who has been a source of inspiration to me throughout the research work, strong pillar she is. My daughter Eliana Kagema who occasionally had to miss dad's play time. My father Christopher Maina for encouragement, my mother Lucy Wanjiru who taught me how to dream, the value of hard work and commitment and my lecturers who have made this dream come true.

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CHAPTER ONE

1.0   INTRODUCTION

1.1   Background of the Study

Banks exist to intermediate the transactions between demanders and suppliers of money at a given consideration and this provides valuable services to a country. To attain development there should be a well-developed financial system to support not only the economy but also the society. A commercial bank plays a vital role in the socio economic matters of the country. Some of the important roles of banks in the development of a country are: promoting the saving habits of people, capital formation and industry promotion, smoothing of trade and commerce functions, generation of employment opportunity, support agricultural development, applying monetary policy, and balancing of development (Singh, 2010). Earnings from these transactions form bank's traditional income generating activities (Teimet, Ochieng & Away, 2011). Shareholders therefore invest money in a firm by buying shares and in return, they expect the firm to use the provided capital in order to generate a return on the shareholder's investment. In this context, Koller, Goedhart and Wessels (2010) stated that the faster companies can increase their revenues and deploy more capital at attractive rates of return, the more value they create. The combination of growth and return on invested capital (ROIC) relative to its cost what drives value.

Banking institutions play a major part in the allocation of economic resources of countries. They continuously facilitate smooth flow of money from depositors to investors. They are able to do so, if they are in a position to generate enough income to cater for their operational expenses that they incur in the course of their operations. In simpler terms, for intermediation function to be sustainable, financial institutions must be profitable. Apart from financial intermediation, the performance of banks financially has major impacts on countries economic growth (Teimet, *et al*. 2011).

Financial institutions with sound financial performance promote investment and accelerate growth economically. Likewise, unsound financial institutions performance has a potential of causing banking failure and crisis, which has adverse implications on growth of the economy (Madiwe, 2014). Therefore, as banks increasingly compete not only with one another but with other financial firms both domestically and across national borders, it becomes incumbent upon them to make

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every effort to operate efficiently. In those countries with relatively high figures for both population per banking office and staff per banking office, efficiencies are frequently being gained through office closings and staff reductions (Barth, Nolle & Rice, 1997).

Over the past twenty years research has indicated that banking industry in Sub-Saharan Africa (SSA) is by far profitable compared to the rest of the countries world over. Banks in SSA have been having an average Return on Assets (ROA) of 2% (Flamini, McDonald & Schumacher, 2009). Investment in risky businesses and ventures was among the prime reasons for the huge returns in the area. The existence of a big gap between supply of bank service and the demand was also a probable cause of a high profitability in banking business in SSA. This has lead into less competition in the industry and charging of higher interest rates. This phenomenon is common in East Africa where the few banks owned by the government take the biggest share of market. External as well as internal aspects can influence commercial banks performance (Al-Tamimi, 2010; Aburine, 2005). These aspects can be categorized into macroeconomic variables and internal (bank specific). The internal aspects are specific and unique company features, which influence the bank's operations and performance. These aspects can only be manipulated by individual bank's resolutions of board and management. The external aspects are factors beyond the firm's control; they affect all participants in the industry and have an impact on banks profitability. Previous studies have shown that functioning of companies may as well be affected by the identity of owners (Ongore, 2011).

The foreign and local categorization is centered on the environment of the prevailing major ownership identity in Kenya. As stated by Central Bank of Kenya (2015) Supervision Report as of December 2015 out of the 43 commercial banks 14 of them are foreign owned and 30 are owned domestically. As of the year 2015, banks owned by foreigners accounted for about 31% of the banking assets (CBK, 2015). The Kenyan financial industry is dominated by commercial banks. In a country where commercial banks dominate the financial industry, any adversity in the industry has a huge influence on that country's economic growth. This is a consequence of the circumstance that any insolvency that could occur in the industry has a greater potential of leading to bank crisis, runs as well as triggering widespread financial predicament and monetary challenges (Kenya Financial Sector Stability Report, 2015).

Irrespective of the favourable overall financial performance of banks in Kenya, several banks have declared losses (Oloo, 2011). Therefore, to take mitigating and precautionary processes, there is a great need to recognize the banks performance as well as its contributing factors. A profitable industry attracts new entrants into the market as well as encourages continuance and expansion of the business. Profitability is a prerequisite of a competitive banking industry. In order for banks (whether privately or publicly owned) to continue to be profitable, there is a necessity for its revenue to be relatively stable to facilitate its growth and expansion over time. However, banks that hold high fraction of liquid assets are more exposed to risks of earning unreasonable profits (Goddard, Molyneux, & Wilson, 2004).

According to Central Bank of Kenya (2015), the Kenyan banking sector comprised of the CBK, as the regulatory authority, 43 banking institutions (42 commercial banks and 1 mortgage finance company), 8 representative offices of foreign banks, 12 Microfinance Banks (MFBs), 3 credit reference bureaus (CRBs), 15 Money Remittance Providers (MRPs) and 80 foreign exchange (forex) bureaus. The 2015 annual report by Bank Supervision shows that out of 43 domestically owned banks only three (3) holds substantial public shareholding with the Government and State owned Corporations. Seven large banks' in Kenya continued to be profitable and dominate the banking space with 58.2 per cent market share.

The CBK Bank Supervisions Annual Report 2015 indicates that the banking system recorded improved performance in the year to December 2015. The industry pre-tax profits growth decreased by 5.0 percent during the year, while growth in total assets and total deposits were 9.2 percent and 8.7 percent respectively. The capital & reserves increased by 7.74 per cent. The general increase in capital and reserves is attributable to additional capital injections by commercial banks to meet the statutory capital adequacy requirements and leverage on business opportunities. The minimum guiding capital suitability prerequisite, which is measured by the ratio of Core Capital and Total Capital to Total Risk Weighted Assets, was 10.5 percent and 14.5 percent respectively. The Core Capital to Total Risk Weighted Assets ratios remained at an average of 16 per cent in 2015 and 2014. However, the Total Capital to Total Risk Weighted Assets ratio decreased marginally from 20.0 per cent in 2014 to 18.9 per cent in 2015 (CBK,2015)

There has been concern from policy influencers that the Kenyan banking industry, in its endeavour to maintain their profitability objectives, has continued to charge high prices for its products and

services, and maintaining very high spreads, recording higher profitability growth rates than most other sectors of the economy. This has witnessed several attempts in the last ten years to institute controls in the industry. The enactment of interest capping law where interest on loans is capped at CBR rate +4% and interest pay-out on interest earning accounts at 70% of CBR rate, has presented another challenge to the banking industry profitability.

1.2   Statement of the Problem

The financial sector globally and locally is ever changing due to factors both micro and macro factors where some are beyond its scope. With the growth in technology, banks have the need to adapt in order to remain profitable and competitive. One of the ways in which they can adjust is through adjusting/ managing their micro-structures. All over the world, there is keen interest in the study of financial sector performance. Banks in Kenya are now facing a number of challenges such as frequent changes in technology required for modern banking, increasing competition arising from high customer and stakeholder expectations, increasing pressure on profitability, stringent banking norms, worrying levels of non-performing loans, rising operating expenses (frauds and other operational losses), shrinking size of spreads and so on. The reforms in the banking sector have also brought profitability under pressure (Pricewaterhouse Coopers, 2014).

Previous literature on the banks profitability has largely focused on determinants of profitability in developed economies, while little exists in emerging markets or low-income countries. The few studies have investigated the moderating effect of ownership structure on the determining factors of fiscal performance of banking industry in Kenya (Ongore, 2013). This study failed to address other key variables that may influence banks' profitability. Much of the existing empirical evidence is on developed economies. A number of studies have been carried out on the Kenyan banking sectors focusing on specific elements of external and internal factors affecting bank profitability. These studies indicate a need for further investigation of the factors, which have continued to determine profitability of the Kenyan banks. A study carried out on factors affecting profitability of banks listed at the Nairobi Stock Exchange (NSE) by Kaneza (2016) concluded that capital adequacy, asset quality and management efficiency all had a positive but non-significant effect on profitability. However, the research focused on three CAMEL factors and was limited to 10 banks listed at the NSE. This creates need for further study on other factors that affect profitability and on higher sample size of banks.

Empirical underpinning shows that internal and external factors contribute largely in the determination of banking sector profitability (Athanasoglou, Delis, & Staikouras, 2006; and Panayiotis, Athanasoglou, Brissimis, & Mathaios, 2005). Yilmaz, (2013) suggested that the ownership structure of the banking industry in Turkey to be less significant in explaining profitability in this emerging markets. Ćuraka, *et.al*, (2012) using a dynamic panel data for a sample of 16 commercial banks in Macedonian in the period of 2000-2005 indicated that external characteristic (economic development, banking industry revolution and concentration) have a high impact on profitability. Accordingly, the Structure-Conduct Performance stipulates that banks tend to increase their profit portfolios in a concentrated market bank (Ćuraka, Poposkib, & Pepura, 2012). It is this research gap that motivated the study to formulate an objective of determining the effects of ownership structure, capital structure and cost structure on financial performance of commercial banks in Kenya.

1.3   General Objective

The purpose of the study was to analyse the effect of ownership, capital and cost structures on financial performance of commercial banks in Kenya.

1.4   Specific Research Objectives

The specific objectives for the study are:

1.4.1   To evaluate the effect of ownership structure on financial performance of commercial banks in Kenya.

1.4.2   To find out the effect of capital structure on financial performance of commercial banks in Kenya.

1.4.3   To determine the effect of cost structure on financial performance of commercial banks in Kenya.

1.5 Significance of the Study

The objective of this study is to investigate factors influencing financial performance of commercial banks in Kenya. The observations will be of benefit to the following key stakeholders:

1.5.1 Regulatory Bodies and Government

The study will be of significance to the government and regulatory bodies to be able to formulate proper policies that can assist in the banking structure. At the policy level, it will enable bank supervisory authorities in Kenya define strategies and principles to be articulated and applied. Regulatory bodies will also be able to come up with proper banking structures to safeguard customers' savings, and also for the banks to remain profitable and competitive. This is done through laws, and banking regulations and framework.

1.5.2 Commercial Banks

The study is timely in view of the role of financial liberalization, technological advancements and globalization, which are more likely to deepen financial services outreach. This study is therefore of significance to commercial banks so that they can see how they can improve their structures so that they are more efficient and profitable. Management can use the results of the research to improve profitability of the institutions they manage though cost structure adjustment, debt to equity structure maximization and balance sheet structure optimization.

1.5.3 Investors

The study will also be of great importance to the banking industry investors who want to own part of the companies. They will be able to know structure aspects employed by banks and know how it will affect their financial performance. They will be able to know how ownership structure, capital structure and cost structure affect financial performance, which they can find from bank publications.

1.6 Scope of the Study

The scope of the study will focus on all the commercial banks in Kenya. The paper will cover a review of bank data for the years 2008 and 2015 to better develop a trend of performance, analyse the ownership structure, capital structure, cost structures, and establish their impact on the financial results. The study will use banks' annual reports and bank supervision reports for relevant data.

1.7 Definition of Terms

1.7.1 Commercial Banks

According to the Central Bank of Kenya (2015), a commercial bank is one, which undertakes banking business, that is, accepting money from the public and lending or investing money held.

1.7.2 Corporate Governance

According to OECD (1999) principles corporate governance is a system by which business corporations are directed and controlled. It can also be defined as the ways in which suppliers of capital to corporations assure themselves of getting a return on their investments (Shleifer & Vishny, 1997).

1.7.3 Cost structure

This refers to the types and relative proportions of fixed and variable costs found within an organization (Garisson, Noreen & Brewer, 2009).

1.7.4 Financial Performance

Measures used to evaluate how well a company is performing and its firm's capacity to generate new resources, from daily activities over a given period (Chen, 2006). Measure of Return on Assets will be by calculated by dividing the profit before taxation by the bank's asset value.

1.7.5 Financial Risk

Concerning a banking entity, this refers to the possibility that the consequence of an action or decision could lead to an adversative impact. Such results have potential of causing a direct loss of capital/earnings or result in imposition of limits on bank's capacity to meet its business goals (Echeboka et al., 2014).

1.7.6 Liquidity

It refers to the means by which a company ensures that it is capable of paying what it owes on time, which is significant to confidence in it and to its survival as well (Ongore & Kusa, 2013).

1.7.7 Ownership Structure

Ownership structure can be defined on two aspects: first is ownership concentration, which means whether a company is owned by one or few large owners/ concentrated, or owned by multiple small holders/ dispersed/ diffused. Secondly, it can be defined through the percentage of foreign or local ownership (Madiwe, 2014).

1.7.8 Organization Structure

This is an established pattern of relationships among the components of parts of company. It formally defines framework of an organization's task and authority relationships (Quangyen & Yezhuang 2013).

1.8 Chapter Summary

The chapter provides a background overview of the study in line with the, with the concepts of the research topic being discussed. The concepts highlighted were financial performance in banks, Kenyan banking industry and its performance. Additionally, the chapter also highlighted problem statement providing gaps from previous studies on factors affecting bank's profitability, purpose of the study, research questions, and scope of study and definition of terms. Chapter two discussed literature review based on the study. Chapter three highlights research methodology that the researcher used. Chapter four explore results and findings of the study. Chapter five provides summaries and findings of the study.

CHAPTER TWO

2.0   LITERATURE REVIEW

2.1   Introduction

This chapter will explore the structures of commercial banks and its effects on financial performance in Kenya. In addition, this chapter discusses literature review based on the following specific objectives; effect of ownership structure on financial performance of commercial banks in Kenya, effect of capital structure on financial performance of commercial banks in Kenya and effect of cost structure on financial performance of commercial banks in Kenya.

2.2   Ownership Structure and its Effects on Performance of Commercial Banks

2.2.1   Ownership Structure and Profitability

Bank ownership structure indicates who the shareholders of the banks are, or in what percentage the shares are owned. This ownership structure can be classified in different ways: publicly owned vs privately owned, locally owned vs foreign owned, institutionally owned vs individually owned, high concentration ownership vs low concentration ownership. Ownership structure as a determining factor for the financial performance of commercial banks compares public, privately owned and foreign banks. Researchers observe that public banks are not as vibrant as private banks (Nouili et al. 2015). However, Onuonga (2014) indicated that the influence of ownership structure on performance of banks have offered contradicting outcomes.

Publicly owned financial institutions in Switzerland do not do better compared to private banks (Dietrich & Wanzenried, 2011). However, the case may have changed due to financial crisis that has been experienced globally making government owned banks to be more attractive because they are considered to be safer which could make their performance better. According to Cornett, Guo, Khaksari and Tehranian (2009), government-owned banks are less profitable compared to private banks since they lend riskier loans which increase their credit risk.

Chege (2013) did a study analysing the relationship between ownership structure and financial performance among commercial banks listed in the Nairobi securities exchange in Kenya. The research design was descriptive survey study in nature since it focused on all investment firms in

Kenya. The population of the study was banks listed at the NSE. A four year secondary data was collected from the 10 listed banks which were used to compile data on financial performance and ownership structure. Data was analysed using both descriptive; mean and standard deviation and inferential statistics - regression analysis. The study findings indicated a relationship between profitability and ownership structure for both foreign and local shareholding.

Some scholars similarly note a variance in performance of foreign and domestic commercial banks. Farazi et al., 2011, discussed that some scholars claim that foreign banks have a better performance in terms of profitability unlike local banks. This is because of the fact that foreign owned banks are considered to have applied management skills and expertise in other nations over a period. Foreign firms usually adopt and use their systems of operations found effective at their home countries (Ongore, 2011). In Thailand, North Africa and Middle East regions, it was found that foreign firms perform better compared to locally owned banks (Azam & Siddiqui, 2012; Chantapong, 2005; Farazi et al. 2011).

Chen (2012) conducted a study investigating the effect of ownership structure on firm performance with evidence from Scandinavia. The study prepared twelve testable hypotheses for empirical analyses. Simple statistics analysis and regression analysis were done: simple statistics analysis allocated firms and their four performance ratios according to their owner identities/nationalities. Regression analysis was also done to test the effect of ownership structure on firm performance, based on the assumption that the relationship is linear and ownership structure is exogenous. The study results showed that ownership concentration has a positive effect on firm profitability and growth. However, the study had a negative effect on firm valuation and risk; divergence between voting right and capital right has positive influence on firm valuation; and owner identities do influence firm performance, especially with regard to profitability and growth.

2.2.2 Effects of Foreign Entry

Claessens et al. (1998) did a study on how foreign entry affects domestic banking markets in eighty countries across the world using seven thousand nine hundred observations. Using regression analysis they investigated how overhead, taxes, net interest margins, and profitability differ between foreign and domestic banks. They used accounting data and macroeconomic data for the period 1988-1995. The findings revealed that foreign owned banks are more profitable than the

domestic owned banks in developing countries but in well developed countries, the domestic banks perform better than foreign banks.

Bonin et al. (2004) did a study on bank performance, efficiency and ownership in transition countries. Using data from the period between 2012 and 2000 they investigated the effects of ownership, especially by a strategic foreign owner on bank efficiency for eleven transition countries in an unbalanced panel consisting of 225 banks and 856 observations. Applying stochastic frontier estimation procedures, they computed profit and cost efficiency taking account of both time and country effects directly. In second-stage regressions, they used the efficiency measures along with return on assets to investigate the influence of ownership type. The result revealed that privatization of banks is not enough to enhance their performance. They also concluded that state owned banks are not more inefficient that domestic and private owned banks.

Dadson (2012) did a study on concentrated share ownership and financial performance of listed companies in Ghana. Data on listed firms at the Ghana Stock Exchange over a period of ten years between 2013 and 2008 was used. The study used panel data regression analysis and performance was measured by using Tobin's Q and ROA. Significant statistical relationships were found in this research. The findings showed that share ownership on the Ghana Stock Exchange is heavily concentrated in the hands of Ghanaians and that ownership concentration, institutional and insider ownership precipitate higher firm financial performance. He recommended that there is the need to encourage concentrated ownership structure and those investments by insider and institutional ownerships should be promoted in order to ensure proper monitoring, reduced agency costs and improve performance.

Lee (2008) did a study seeking to establish the effect of equity ownership structure on firm financial performance in South Korea. It focused on the role of two main dimensions of the ownership structure: ownership concentration i.e. the distribution of shares owned by majority shareholders and identity of owners especially, foreign investors and institutional investors. The study results indicated that firm performance measured by the accounting rate of return on assets generally improves as ownership concentration increases, but the effects of foreign ownership and institutional ownership were insignificant. The study also found existence of a hump-shaped

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relationship between ownership concentration and firm performance, in which firm performance peaks at intermediate levels of ownership concentration.

Research has revealed that performance of banks can be influenced by internal and external elements (Athanasoglou et al, 2005; Al-Tamimi, 2010; Aburine, 2005). The scale of the impact will be influenced by the management decisions. The owners' interests influence the decision by the management (Ongore, 2011). The study attempts to investigate whether ownership structure significantly influence the performance of banks in Kenya.

2.2.3 Private and State Owned Banks

Mwathi (2009) studied on the relationship between commercial banks' financial performance and their ownership structure. She categorized them as be private banks, government banks, foreign banks, domestic banks. Using regression analysis, the study was centered on banks where the top 10 shareholders hold more than 50% of the shares for the period between 2004 and 2008 in Kenya. Using ROA as the performance measure, the study revealed that bank ownership structure had a fair positive influence on performance. The findings also showed that both private and state owned banks had a negative correlation with performance. She underscored that both banks that are foreign owned and those owned domestically had a positive correlation with performance. The study hypothesized that commercial banks that are state owned perform dismally than the foreign or domestic commercial banks. The study concluded that widely held banks perform well than closely held ones.

Bwire (2012) did a correlation study to establish whether there are any differences between the profitability of foreign and local banks listed at the NSE by examining the determinants of their profitability. The sample involved 3 foreign commercial banks and 6 local commercial banks listed at the NSE. Data was scrutinized using correlation analysis, descriptive analysis, and regression analysis. The study showed that there were no significant differences between the performance of foreign and domestic listed banks. The regression findings also revealed that foreign ownership did not affect bank profitability. The study also found that none of the variables had a significant influence on ROA or ROE. The study hypothesized that listed foreign banks in Kenya do not outperform the domestic listed banks. Maina and Ondongo (2013) studied on the effect of capital structure on financial performance of firms listed at the NSE from year 2002 to

2011 using their financial statements as the secondary data. They conducted their research using Causal research design and Gretl statistical software to perform the panel regression analysis. Its output will be significant to the management of quoted companies and government. The results showed that debt and equity are the main determinants of financial performance of firms listed at the NSE. The findings demonstrated a negative and significant relationship between capital structure and performance implying that the more debt firms use as a financial source the more likely they will perform dismally. The study also showed that firms listed at NSE used more short-term debts than long term.

2.3 Capital Structure and Its Effect on Financial Performance of Commercial Banks

2.3.1 Capital Structure and Value Maximization

Capital structure implies the way a firm finances its assets across the blend of debt, equity or hybrid securities (Saad, 2010). Capital structure of the organization is very hard to determine and managers are facing difficulties in precisely determining the optimal capital structure. Optimal capital structure means with a minimum weighted average cost of capital and thus maximize the value of organization. A business utilizes various kinds of financing to operate a company efficiently. In analyzing the effects of capital structure on banks, different researchers have used different techniques and methodologies which have provided different results.

Qamar, Masood and Khan (2016) conducted a study on the impact of capital structure on the profitability of Pakistan commercial banks listed on Karachi Stock Exchange. Data was analyzed by applying fixed and random effects on panel data regression of 15 listed Commercial Banks from 2005 to 2014. The study results indicated that capital structure for both debt-to-asset and debt-to-equity has negative impact on profit as increase in debt, increases the interest payments thus decline in profitability.

Saeed, et al., (2013) did a study on the impact of capital structure on banking performance, with specific reference to Pakistan. The study extended empirical work on capital structure determinants of banks within country over a period of five years from 2007 to 2011. They utilized data of banks listed at Karachi stock exchange. Multiple-regression model was used to estimate the relationship between capital structure and banking performance. ROA, ROE and earnings per share was used

to measure performance. Determinants of capital structure were long-term debt to capital ratio, short-term debt to capital ratio and total debt to capital ratio. The study findings indicated a positive relationship between determinants of capital structure and performance of banking industry.

Siddik et al. (2016) in his study on the impact of capital structure on performance of bank in a developing economy. The study used panel data of 22 banks for the period of 2005-2014, and empirically examined the impact of capital structure on the performance of Bangladeshi banks assessed by return on equity, return on assets and earnings per share. Study results from pooled ordinary least square analysis indicated that there are inverse impacts of capital structure on bank's performance. According Zeitun and Tian (2007), capital structure is closely link to the financial performance. Eldomiaty and Azim (2008) in their study on the dynamics of capital structure and heterogeneous systematic risk classes in Egypt findings revealed that there is a positive relationship between capital structure and financial performance.

Hadlock and James (2002) in their study titled, 'Do banks provide financial slack?'' Findings also revealed that there was a positive relationship between capital structure and financial performance. Saeedi and Mahmoodi (2011) in their study on capital structure and firm performance: evidence from Iranian companies it was established that market measures of performance are positively related to capital structure. However, a study done by Fama and French (2008) on testing trade off and pecking predictions about dividends and debt findings revealed that there was a negative relationship between capital structure and financial performance. Ebaid (2009) in his study on the impact of capital-structure choice on firm performance: empirical evidence from Egypt findings revealed that capital structure has little to no impact on a firm's performance

2.3.2 Growth of Debt and Financial Performance

In a local study, Kanini (2016) did a study on the effect of capital structure and financial performance of Kenya's banking industry. The target population was the banking industry which has 42 commercial banks, and it is from this population a census was conducted. Secondary data was collected from the registered banks by the Central Bank of Kenya in Kenya and covered the period between 2005 1nd 2014. Data analysis was done through regression analysis using SPSS software. The study results indicated that growth in debt would affect financial performance positively leading to improvement in profitability. The study also shows retained earnings having

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an effect on the preference shares of commercial banks' financial performance. A unit increase in retained earnings and preference shares tends to increase the EBIT, indicating that debt and retained earnings are significant in predicting financial performance.

Hailu (2015) performed a study on the impact of capital structure on the profitability of commercial banks in Ethiopia. The study employed a quantitative panel data research design. The panel data were obtained from the audited financial statements of eight commercial banks and National Bank of Ethiopia for the period between 2001/2002 and 2012/2013. Data was analysed through an estimation model using Eviews statistical package. The study results indicated that capital structure as measured by total debt to asset had statistically significant negative impact, whereas deposit to asset had statistically significant positive impact on profitability of core business operations of commercial banks. Moreover, loan to deposit, spread and asset size also had statistically significant and positive relationship with profitability.

Kuria (2013) did a study on the effect of capital structure on the financial performance of commercial banks in Kenya. The study was conducted on 35 commercial banks in Kenya which were in operation in Kenya for the five years of study from 2008 to 2012. The various ratios of these commercial banks were computed from the various data collected from the data extracted from their financial statement for the period. The data was then analysed using linear regression models to establish the relationship of capital structure and the financial performance of these commercial banks. The study findings indicated that there is no significant relationship between capital structure and financial performance of commercial banks in Kenya.

Kamau and Kagiri (2013) conducted a study on the effect of capital structure to the company's financial performance of the listed banking institutions in Nairobi Securities Exchange. The study's research design was descriptive research study, and targeted 35 respondents. Data was collected using questionnaires in order to administer to the management of the identified banks under study. Pearson's correlation test and multiple regression analysis were used for data analysis. The study results indicated that there is a positive relationship between the dependent variables and the independent variables. The study also showed that debt, leverage risk, interest rate, and debt equity had significant effect on Return on Equity (ROE), Return on Assets (ROA), Gross Profit Margin and Net Profit Margin (NPM).

2.3.3 Inflation and Market Risk Factors on Financial Performance

Macroeconomic factors are applicable to a broad economy at national or regional level and affect a large population and are key indicators of economic performance. There are three major macroeconomic factors that affect bank profitability, namely GDP growth rate, inflation rate and real interest rate. GDP growth is a measure of the total economic activity and it is adjusted for inflation. It affects to the demand and supply for banks deposits and loans. A positive GDP growth facilitates high demand for credit which in turn positively affects the bank's profitability. Conversely, demand for credit is low during recession periods which negatively affect the profitability of financial institutions (Bikker & Hu, 2002).

Inflation indicates the general price level in the economy and is indicated by the inflation rate. Inflation affects the real value of both costs and revenues. According to Perry (1992) the relationship between the inflation and profitability can have a positive or negative effect on profitability depending on whether inflation is anticipated or unanticipated. If an inflation rate is anticipated, financial institutions adjust interest rate to ensure that the revenues are more that the costs. Conversely, if inflation rate is not anticipated the costs increase more rapidly than revenues. Real interest rate is the interest rate an investor expects to receive after allowing for inflation.

It is the purchasing power growth rate resulting from an investment. Purchasing power is maintained constant by adjusting the nominal interest rate to compensate for inflation rate of growth. The relationship between interest rates and banks performance is positive. As interest rates rise bank profits tend to also increase (Samuelson, 2012). According to Linyiru (2006) most studies have divided factors that determinants of performance of Commercial Banks into Internal and External Factors. Internal factors are factors that have a direct influence on the financial statement and external factors are factors that banks do not have control over. This includes inflation, regulation, concentration, ownership, money supply, competition.

Market risk refers to risk of a change in the value of a financial position arising from changes in the value of factors such as foreign exchange rates, commodity prices, stock prices and bond prices. Market risk is measured as a likelihood of adverse changes in the value of a position with the current market price as a standard, Dowd (2005). Desaro (2012) in her study on the effect of macroeconomic factors on financial performance of commercial banks in

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Kenya it was revealed that ROA was positively correlated with the GDP, money supply, lending rate and inflation, and negatively correlated with exchange rate.

Sensitivity to Market risk reflects the extent to which changes in foreign exchange market rates, commodity prices, interest rates or equity prices affect the financial position and earnings of a financial institution. The sensitivity to market risk component focuses on the management ability to detect and control market risk exposures, the characteristics of risk exposures of interest rates occurring from non-trading positions and also characteristics of exposures of market risk occurring from foreign and trading business activities. MakDonald and Koch (2006)

2.4 Cost Structure and its Effect on Performance of Commercial Banks

2.4.1 Operational Costs

Costs incurred by commercial banks generally results from normal banking operations. These costs are referred to as operation costs. Operation costs are expenses that can be controlled by the management. If utilized well, these costs have positive influence on the banks' performance and profitability (Frederick, 2014). Operation costs usually relate negatively with the performance of banks and are commonly expressed in terms of percentage of income (Swarnapali, 2014). A study by Obanyi (2013) concluded that operating costs negatively and significantly influence profitability of commercial banks in Nigeria.

Rao and Lakew (2012) made similar conclusions in a study conducted on Ethiopia's commercial banks. Locally, no study has been done, which provides the opportunity for the study to analyse how cost structure has an effect on financial performance of banks. Cost structure will be analysed using operating ratio, staff cost to income ratio, and loan loss/impairment to income ratio. Operational costs are the expenses which are related to the operation of a business, or to the operation of a device, component and piece of equipment or facility. They are the cost of resources used by an organization just to maintain its existence (Gupta, 2009). The operational costs to income ratio shows how efficient a company is, and is determined by dividing total operating expense by net sales.

The calculation is done as follows:

Operating ratio = (operating costs / net sales) x 100

For banks, however, net sales are provided by Net Interest Income and Non-Interest Income. Therefore, the operating ratio is determined as:

Operating ratio = (operating costs / (net interest income + non-interest income)) x 100

The cost structure determines the overall operational costs whose ratio determines the banks' efficiency in managing its costs. A high operating ratio indicates low efficiency in cost management due to low profits.

Staff cost is part of the larger operating costs, and it is the total staff salaries, wages and other staff expenses compared to the net sales. Again, this is an efficiency ratio which arises as a result of bank structure in terms of number of employees and compensation structure. High staff cost to income ratio indicates non-efficiency in a bank as employees cannot add value in terms of sales compared to what they are being compensated (Trujillo-Ponce, 2012). Staff cost to income ratio is calculated as:

Staff cost ratio = (staff costs/ (net interest income + non-interest income)) x 100

Loan loss/ impairment is when a loan is not able to be collected or considered probable that not all of the related principle and interest payment will be collected. The loan loss/ impairment to income ratio highlight the amount of loss compared to income, interest and non-interest. Loan loss is mainly stated in percentage as non-performing loans (Financial Accounting Manual, 2017). A high loan loss to income ratio implies reduced profitability as a result of bad loans. The cost structure of allowable loan loss through provisions and stringent measures in issuance of loan affect the amount of bad loans, hence affect profitability. The loan loss/ impairment to income ratio is calculated as:

Loan loss/impairment to income = (bad loans + impaired loans)/ (net interest income + non-interest income)

A study by Rezvanian and Mehdian (2002) examined the cost structure and production performance of commercial banks in Singapore. The study used a parametric approach in the

framework of a translog cost function and a non-parametric approach in the framework of linear programming to examine production performance and cost structure of a sample of Singaporean commercial banks. The results of the parametric methodology indicated that the average cost curve of the banks was U-shaped and there are economies of scale for small and medium-size banks. Further analysis also provided evidence of economies of scope for all banks regardless of their size.

In another study, Zhao, Casu and Ferrari (2010) did a study on the impact of financial sector reforms on the cost structure characteristics and on the ownership-cost efficiency relationship in Indian banking. The study employed a stochastic cost frontier approach on a balanced panel dataset which includes public sector, domestic private and foreign banks continuously operating in India throughout the period 1992-2004. The study also examined the impact of reforms on the dynamics of competition in the lending market by estimating the persistence of the overcharge (the price-marginal cost ratio) through a partial adjustment model. The study findings suggest that Indian commercial banks have responded to the new regulatory environment by changing both the input mix and the output composition.

2.4.2 Cost and Ownership Structure

It is envisaged that the findings of this research will document a new insight about the financial environment in Kenya. This paper will focus on state and foreign membership structures and their relationship on bank performance. On the basis of World Development Report of 2002, three arguments are put forward to justify state over private ownership of banks. First private banks are more susceptible to crisis. Second, too much private ownership may curtail access to credit to many segments of sociality. Third the government is better placed to allocate capital to some specific investment (Boubakri et al., 2001).Government ownership is also supported by two theories; these are the development view and the political view.

According to development view government ownership is justified because financial institutions are not well developed especially in law and middle income countries .This government ownership can enhance synergy for economic growth and development .The political view asserts that there is need for government to have control of investments and banks so as to create employment and give handouts to political supporters for political gain though votes and related benefits. This is

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compounded by the fact that in low income countries the financial system is generally underdeveloped. Both views are founded on the assumption that governments finance public goods that are socially desirable and cannot be financed privately (Laporta et al., 2001). There is significance negative relationship between the share of sector assets in state banks and country's per capital level of income. Enhanced government ownership of banks is linked to diminished efficiency, reduce saving and borrowing, lowers productivity and slow economic growth (Barth et al, 2001). Evidently, marginal government ownership is expected to have an effect on bank performance (Littlechild, Boubakri et al., 2013). A substantial number of studies provide evidence that private ownership of banks is associated with profound financial performance (Lang & So, 2002, Cornett et al., 2000).

Theoretically, the foregoing is consistent with the principal agency theory by Jensen and Meckling (1976). Government ownership is considered inefficient because of lack of capital market monitory which in the basis of agency theory would influence managers to forego enterprise interest for the sake of their personal narrow interests. Conversely, private banks have close monitoring of managers to ensure that they operate efficiently; otherwise there are anticipatable serious consequences (Lang and So, 2002).

Based in the above findings regarding state named and private ownership structures government named banks in Kenya are expected to be less efficient compared to private banks and hence private banks have superior performance than government owned banks.

2.4.3 Macro-Economic Structure

Evidence from many studies in different countries suggests that foreign banks are generally less efficient than domestic banks (DeYoung & Nolle, 2012, Hassan and Hunter Mahajan et al., 2012, Chang et al., 1998). In a study of Spain, German, France, the US and the UK documented that domestic banks have both higher cost efficiency and profit efficiency than foreign banks (Berger et al., 2000).

However, these studies are focused on developed countries. Some studies concluded that foreign banks have nearly the same mean efficiency as domestic banks (Vander, 2012, Hassan & Lozano Vivas, 1998). Other studies conducted in developing and developed countries state that foreign banks have lower interest margins, overhead expenses and profitability than domestic banks in

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industrialized nations. The converse is true in developing countries (Claessens et al., 2000, Demirguc-Kunt & Huizinga, 2013). In many developing countries for example, Indonesia, Egypt, Argentina and Venezuela foreign banks have significantly higher interest margins compared to domestic banks. In Latin America and Asia, foreign banks reported significantly higher net profitability than domestic banks.

Lower performance of foreign owned banks compared with their domestic counterparts in developing countries has been explained by different viewpoints. These include different regulatory, competitive and markets conditions existing in and developed countries (Claessesns et al., 2000). Local network take advantage of domestic banks (Clarke et al., 2001) and in the US foreign owned banks are comparatively less profitable on the basis that they put more premium on growth than profitability (DeYoung & Nolle, 2012).

In developing countries the views opened for the superior performance of the foreign as compared to domestic banks exemption from credit allocation regulation and other restrictions, inefficiencies in the financial market and retrogressive banking practices that allow foreign banks superior performance (Claessesns, Demirguc-Kunt & Huizing 2000). Considering that Kenya is more likely to have similar financial and economic environment to that of developing countries this study expects that the performance of banks in Kenya mirrors those of developing countries in a similar spectrum. A profound evidence suggest that extent and concentration of foreign banks will have an impact on performance. A study by Boubakri et al. (2013) reported that the higher the concentration by local shareholders the higher the net interest margin therefore the lower the banks net effect to the economic efficiency. Conversely, the higher the concentration by foreign shareholders, the lower the net interest margin and therefore the higher contribution to economic efficiency. A study in Hungary found that the higher presence of foreign banks is associated with a robust environment and have significant impact on performance of commercial banks resulting in higher profit in all banks (Hassan and Marton (2003)

2.5 Chapter Summary

The chapter discussed theoretical and empirical literature on the banking structure and its effect on financial performance of commercial banks in Kenya. The chapter outlined theories that provided understanding to the study and were: portfolio theory, market power theory, and

efficiency structure theory. The empirical literature provided information with regards to ownership structure, capital structure, and cost structure, together with relevant previous empirical studies on the same. Empirical literature was provided where similar previous studies were done with the outcomes. The study finalized by providing a conceptual framework to highlight the operationalization and relationship of the variables.

<div align="center">

CHAPTER THREE

3.0   RESEARCH METHODOLOGY

</div>

3.1   Introduction

In this chapter the study sought to exhaustively determine the relationship between internal and external determinants over profitability and financial performance of commercial banks. The empirical model under consideration also determined whether determinants of banking sector profitability and financial performance were important in explaining the developments of commercial banks in Kenya. The chapter also highlights research design, population, sampling design, data collection methods, research procedures and data analysis methods that were used in this study.

3.2   Research Design

Bryman and Bell (2007) described research design as a general plan that provides a framework for the choice of data collection techniques and data analysis procedures. The study employed a descriptive cross-sectional research design because it gave a good description of what, when and how understanding of phenomenon under study. Descriptive study was used to describe or outline a subject. Additionally, it helps to creating a profile of a group of issues, people or events whereas; a cross-sectional study involves a one-time interaction with the unit being studied. The benefit of the cross-sectional study design is that it allows researchers to compare many different variables at the same time. The commercial banks were analysed at the same time; cross-sectional to analyse the effect of banking structure on financial performance.

3.3   Population

3.3.1   Population

Population alludes to a complete set of objects or elements that have similar characteristics that are of interest to the research. Cooper and Schindler (2014) noted that population refers to the gathering of all elements about which the research wishes to make inferences. These characteristics are determined through the criteria set by the researcher. From the Central Bank of Kenya website (2015), there are currently 42 commercial banks operating in Kenya as at the end of 2015 which

comprised the study population. The study dealt with the banks that have been in existence since 2006 to 2015.

3.3.2 Sampling Design

These are the set of rules or specifications for the drawing of a sample in an unequivocal manner; a way by which a study provides information on the target and final sample sizes, strata definitions and the sample selection methodology (Dodge, 2003). This study did not apply sampling design as all banks that existed over study period were considered.

3.3.2.1 Sampling Frame

According to Zikmund and Babin, (2012), sampling frame is the source material from which a sample is drawn. It represents a list of all items or elements within a population which can be sampled. The sampling frame for this study was banks that have been in existence since 2008 to 2015 as obtained from Central Bank of Kenya website.

3.3.2.2 Sampling Technique

Mugenda and Mugenda (2009) sampling is the process to selecting respondents from a population. Sampling technique is used because it determines a true representation of the entire population (Cooper & Schindler, 2014). The study used census since the population of banks that have been in existence since the population of banks that have been existence since 2006 to 2015 is less than 100. A census is a complete number of a population or groups (Sunders, Lewis, & Thornhill, 2015).

3.3.2.3 Sample Size

According to Bryman (2012), a sample is the segment or subset of the population that is selected for research. This study focussed on all the banks that were in existence over the period 2006 to 2015. The data was obtained from central Bank of Kenya website.

3.4   Data Collection Methods

Creswell (2002) defines data collection as means by which information is obtained from the selected subjects of an investigation. Data collection stage shows what type of data is collected,

whether primary or secondary, the instrument of data collection used, and the period of which the data is collected. The study used secondary collection tools to gather data for analysis. Secondary data collection instruments were used to answer the research objectives to collect data on bank foreign-local ownership, public-private ownership, and relevant financial ratios. Banks listed with Nairobi Stock Exchange and banks with government shareholding were considered public owned. Banks with foreign parent company were considered foreign owned. The financial ratios were calculated from data including profit before tax, total assets, total equity, net interest income, operating costs, short-term debt, staff costs, loan loss, impaired loans, and ownership. The relevant data for each commercial bank in Kenya was filled in the data collection sheet so that the ratios can be calculated for analysis.

The data was picked from banks published annual reports; bank supervision reports from CBK and company websites and from these raw data, the ratios were calculated. The ratios calculated were return on assets, return on equity, operating ratio, debt-to-total assets, debt-to-total equity, staff cost-to-income ratio, and loan loss-to-income ratio.

3.5   Data Analysis Methods

In data analysis stage, the collected data was processed, cleaned and tabulated for analysis. The study used descriptive research which included; mean standard deviation and median. Multivariate analysis technique was used to analyse the data and this was done using multiple linear regression. For the regression analysis variables, the dependent variable financial performance was measured using both return on assets and return on equity. The independent variable ownership structure was measured using either public-private ownership or foreign-local ownership. Banks that had any percentage of foreign ownership were classified as foreign banks, while banks that had government ownership and/or listed at the Nairobi Securities Exchange were classified as public. Capital structure variable was measured using debt-equity ratio and debt-asset ratio. The cost structure variable was measured using operating ratio, staff cost-to-income ratio, and loan loss/impairment-to-income ratio. With these measurement values, Statistical Package for Social Scientists (SPSS) v.21 software was used to conduct the multiple regression analysis. The multiple linear regression model was formed to determine the effect of independent variables on the dependent variables. The dependent variable was measured to determine if and how much it varied as the independent variables vary.

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The linear regression model for the study took the form of:

$$Y_1 = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$
$$Y_2 = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y_1 = the dependent variables bank return on assets

Y_2 = the dependent variables bank return on equity

X_1 = the independent variable ownership structure

X_2 = the independent variable capital structure

X_3 = the independent variable cost structure

β_1, β_2, and β_3 = the regression coefficients for the variables X_1, X_2 and X_3, respectively.

ε = the error term for the regression model.

The dependent variable, bank financial performance, was measured using ratio scale which was the return on assets and return on equity of the various banks. The independent variable, ownership structure was measured using nominal scale, while independent variables capital structure and cost structure were measured using a ratio scale. The variable aspects and their relationship to the dependent variable were outlined. Analysed data and statistics were presented in form of tables for interpretation.

3.6 Chapter Summary

Research methodology clearly gives the step by step process of the study. The study employed a descriptive cross-sectional research design of which data was collected from different banks at the same time period. Details about the research design population and sample design have been discussed fully. The study intends to realize its objective by analysing the data from the banks of which a census study was conducted and no sample used since the population size was small. The study was completed when relevant data was collected using both primary and secondary data, and analysed to draw conclusion. The study finally analysed the collected data using regression analysis and output presented in tables for interpretation.

CHAPTER FOUR

4.0   RESULTS AND FINDINGS

4.1   Introduction

This chapter presents results and findings of the study as obtained from the information collected and analysed within the study. The objective of the study was to analyse the effect of banks' micro structure on financial performance of Kenya's commercial banks. This chapter contained the inferential statistics on ownership structure and financial performance in section 4.2, capital structure and financial performance which is highlighted in section 4.3, and finally cost structure and financial performance which is outlined in chapter 4.4. The chapter summary was highlighted in section 4.5.

4.2   Descriptive Analysis

4.2.1   Ownership Structure of Banks

Table 4.1: Private/ Public Ownership Structure Frequencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private	30	71.4	71.4	71.4
	Public	12	28.6	28.6	100.0
	Total	42	100.0	100.0	

Table 4.1 highlights the frequency distribution of ownership structure based on whether they are public-owned or private-owned. Publicly-owned banks are those which the government has more than 50 percent of the shareholding, while privately-owned banks are those which the government owns less than 50 percent of the shareholding. From the table, majority of the banks are privately owned with the findings indicating that 71.4% (N=30) of the banks are privately owned and the other 28.6% (N=12) being publicly-owned.

Table 4.2: Foreign/ Local Ownership Structure Frequencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Foreign	12	28.6	28.6	28.6
	Local	30	71.4	71.4	100.0
	Total	42	100.0	100.0	

Table 4.2 presented the findings of the frequencies of the foreign/ local ownership of commercial banks in Kenya. The study findings indicated that majority of the banks are locally owned with 71.4% (N=30) of the banks being locally-owned and the other 28.6% (N=12) being foreign-owned.

4.2.2   Micro-Structure of Banks

Table 4.3: Micro-Structure Descriptive of Commercial Banks

	Total Average	Public bank average	Private bank average	Local bank average	Foreign bank average
Return on assets	0.0265	0.0422	0.0202	0.0281	0.0226
Return on equity	0.1697	0.2522	0.1366	0.1766	0.1524
Operating ratio	0.7748	0.6090	0.8411	0.7640	0.8019
Staff costs to income ratio	0.3320	0.2803	0.3527	0.3186	0.3655
Loan loss to income ratio	0.7813	0.5903	0.8578	0.8687	0.5629
Debt-to-total assets	0.0900	0.1070	0.0832	0.0916	0.0858
Debt-to-total equity	0.6372	0.7238	0.6026	0.6518	0.6008

The micro-structure of commercial banks in Kenya consisted of the variables that were used for the study. The descriptive statistics analysed was the mean and was provided for the dependent and dependent variables as provided in Table 4.3. The analysis was broken down based on the mean for all the banks, mean for publicly-owned banks, privately-owned banks, locally-owned banks, and foreign-owned banks and this was for the period of the study which was 2008 to 2015. The return on assets had a mean of 2.65% for all the banks, a mean of 4.22 percent for publicly owned banks, a mean of 2.02% for publicly-owned banks, mean of 2.81% for locally-owned banks, and a mean of ROA of 2.26% for foreign-owned banks. The findings show there is a significant difference in return on assets average between publicly-owned banks and privately-owned banks, but not much difference on local and foreign-owned banks. The return on equity had a mean of

16.97% for all the banks, a mean of 25.22% for publicly owned banks, a mean of 13.66% for publicly-owned banks, mean of 17.66% for locally-owned banks, and a mean of ROE of 15.24% for foreign owned banks.

With regards to operating ratio which is a cost structure variable item, the study indicated a mean of 77.48% for all the banks, a mean of 60.91% for publicly owned banks, a mean of 84.12% for publicly-owned banks, a mean of 76.4% for locally-owned banks, and a mean of 80.19% for foreign owned banks. The findings also show a significant difference in the operating ratio percentages between public-owned banks and privately owned banks. The staff costs-to-income ratio which is also a cost structure variable item had a mean of 33.2% for all the banks, a mean of 28.03% for publicly owned banks, a mean of 35.27% for publicly-owned banks, a mean of 31.86% for locally-owned banks, and a mean of 36.55% for foreign owned banks. The percentages show a significant difference in the staff costs between publicly-owned banks and privately-owned banks, and also locally-owned banks and foreign-owned banks. The loan loss to income ratio had a mean of 78.13% for all the banks, a mean of 59.03% for publicly owned banks, a mean of 85.78% for publicly-owned banks, a mean of 86.87% for locally-owned banks, and a mean of 56.29% for foreign owned banks. These findings indicated a significant difference in the loan loss to income ratio between publicly-owned banks and privately-owned banks, and also locally-owned banks and foreign-owned banks.

The debt to total assets ratio which is a capital structure variable item had a mean of 9.0% for all the banks, a mean of 10.7% for publicly owned banks, a mean of 8.32% for publicly-owned banks, a mean of 9.16% for locally-owned banks, and a mean of 8.58% for foreign owned banks. The findings also show there is no huge difference in the debt-to-total assets ratio between public-owned banks, privately owned banks, local banks and foreign banks. Finally, the debt-to-total equity ratio as a capital structure item had a mean of 63.72% for all the banks, a mean of 72.38% for publicly owned banks, a mean of 60.26% for publicly-owned banks, a mean of 65.18% for locally-owned banks, and a mean of 60.08% for foreign owned banks.

4.2.3 Ratio Trends

i) Dependent Variables: Return on Assets and Return on Equity

The dependent variables ratio trends show the trend for average return on assets and return on equity of all commercial banks in Kenya from year 2008 to the year 2015. Figure 4.1 below shows the return on assets had slight variance between 2008 and 2015 with the average ROA for commercial banks in Kenya was 1.83% in 2008 while it had an ROA of 2.15% in 2015.
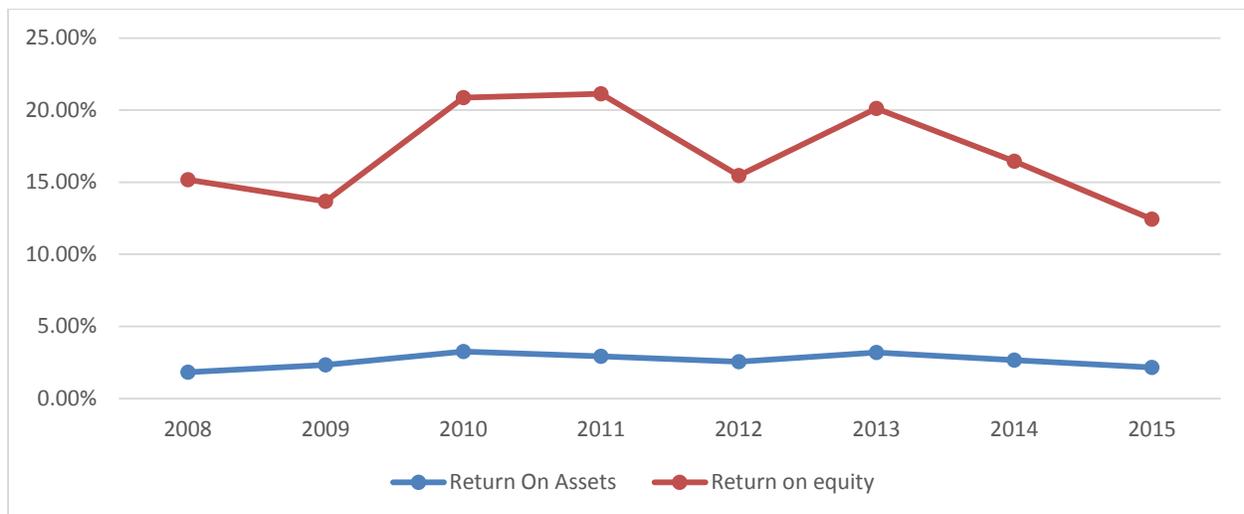
Figure 4.1: Return on Assets and Return on Equity Trends

The return on equity was higher than the return on assets, and had greater variability between the years 2008 and 2015. The average ROE for the commercial banks in Kenya was 15.18% in 2008, 20.86% in 2010, 15.47% in 2012, 20.11% in 2013 and 12.43% in 2015. The variance is much higher than that of return on assets.

ii) Independent Variables
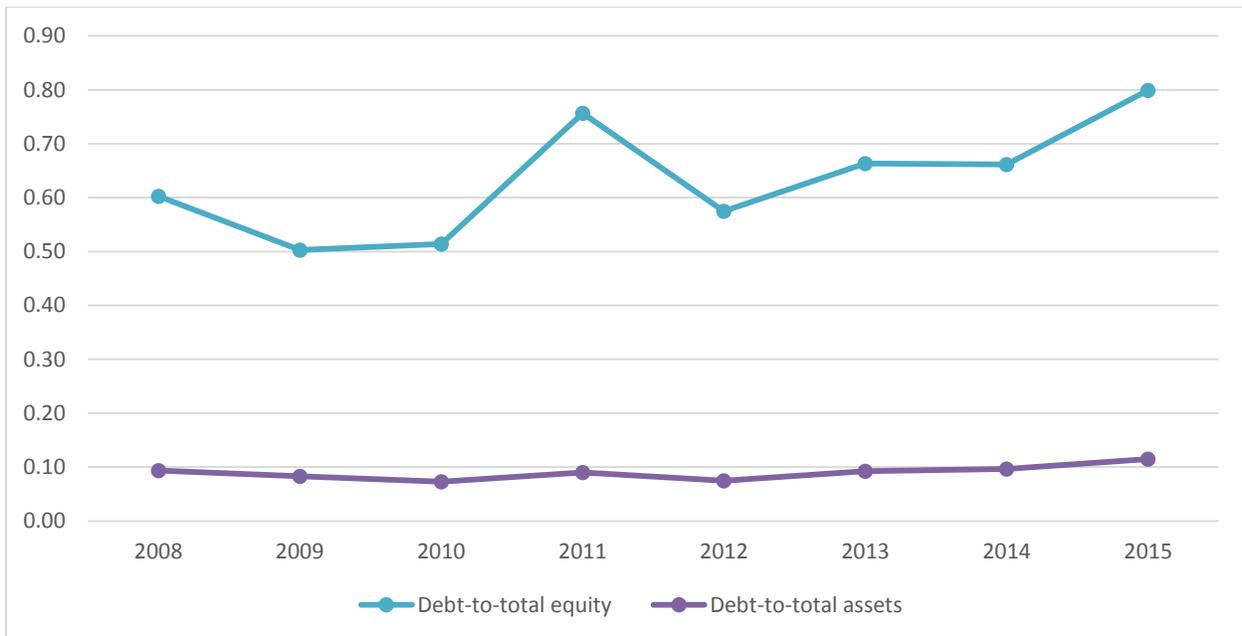
Figure 4.2: Capital Structure Trends

Figure 4.2 highlights the capital structure trends indicating the average debt-to-total assets and debt-to-total equity ratios for the commercial banks in Kenya between the years 2008 and 2015. Debt-to-total assets had a rather stagnant rate between the years 2008 and 2015 with little variability of value of 0.09 in 2008 and 0.11 in 2015. However, the debt-to-total equity had a higher variability compared to debt-to-total assets in the same period, ranging between 0.50 and 0.80.
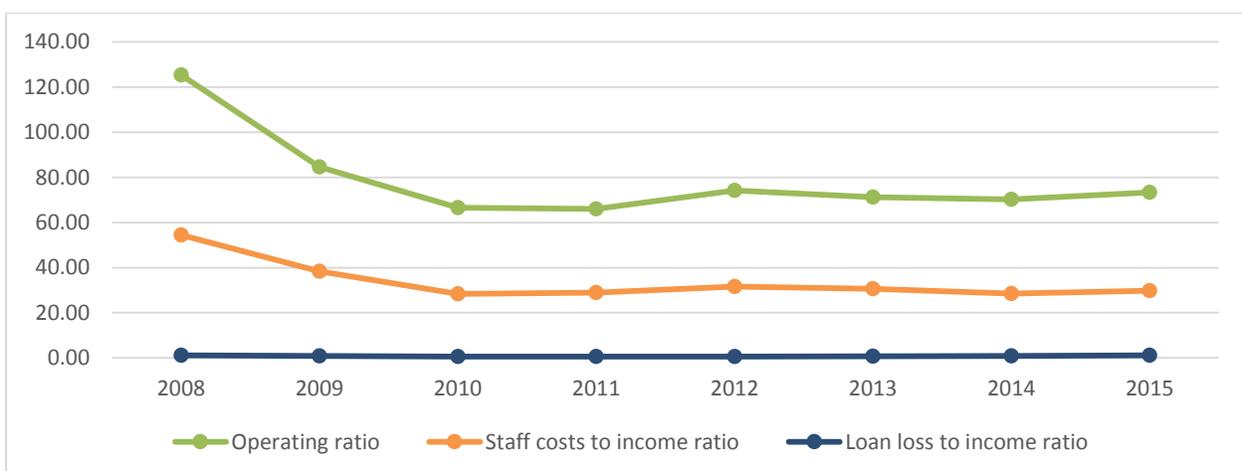
Figure 4.3: Loan Loss to Income Ratio
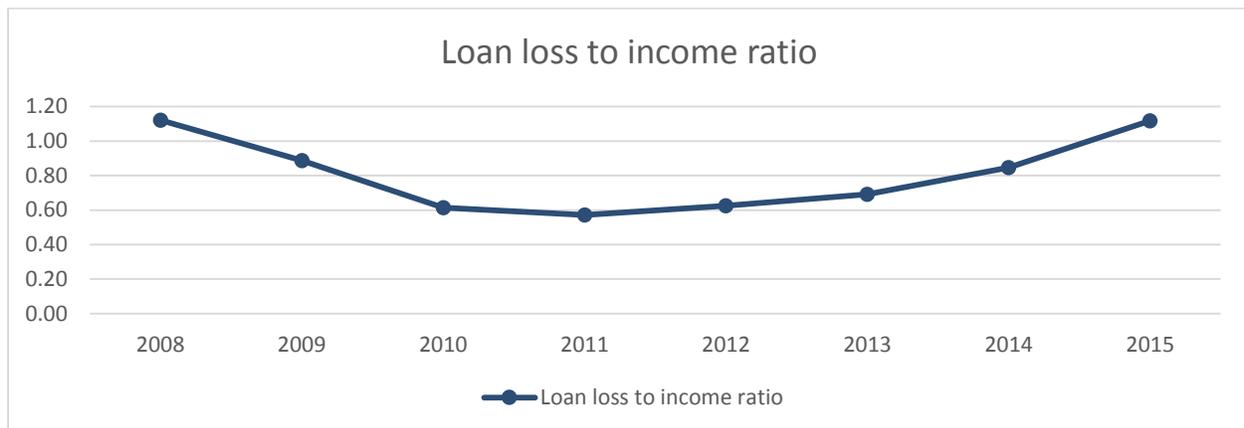
Figure 4.4: Cost Structure Trends

Figure 4.3 indicated the average cost structure trends for all the commercial banks in Kenya between the year 2008 and 2015 while Figure 4.4 specifically indicated loan loss-to-income ratio for commercial banks in the periods 2008 to 2015. The operating ratio indicated a reducing ratio of 125.31 in 2008 to 73.33 in 2015. The staff costs-to-income ratio also had a reduction in the period from a value of 54.47 in 2008 to 29.79 in 2015. Loan loss-to-income ratio had a reduction from year 2008 to 2011, and then went up until the year 2015 with a value of 1.12.

4.2.3 Correlation Test

a) Return on Assets

Table 4.4: Correlation of Return on Assets and the Independent Variables

		ROA	Operating ratio	Debt-to-total assets	Debt-to-total equity	Staff costs to income ratio	Loan loss to income ratio
Return On Assets	Pearson Correlation	1	-.760**	-.162	-.203	-.707**	-.431**
	Sig. (2-tailed)		.000	.305	.198	.000	.004
Operating ratio	Pearson Correlation	-.760**	1	.065	.063	.967**	.186
	Sig. (2-tailed)	.000		.684	.692	.000	.237
Debt-to-total assets	Pearson Correlation	-.162	.065	1	.898**	.041	.101
	Sig. (2-tailed)	.305	.684		.000	.796	.525
Debt-to-total equity	Pearson Correlation	-.203	.063	.898**	1	.007	.122
	Sig. (2-tailed)	.198	.692	.000		.966	.440
Staff costs to income ratio	Pearson Correlation	-.707**	.967**	.041	.007	1	.028
	Sig. (2-tailed)	.000	.000	.796	.966		.860
Loan loss to income ratio	Pearson Correlation	-.431**	.186	.101	.122	.028	1
	Sig. (2-tailed)	.004	.237	.525	.440	.860	

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation test shows the relationship between the variables, the dependent variable, return on assets, and independent variables, and among the independent variables. The study conducted a Pearson's correlation test, and the findings as indicated in Table 4.4 indicated that return on assets had a negative and significant relationship with operating ratio (-0.76), a negative but non-significant value of -0.162 with debt-to-total assets, a negative but non-significant relationship with debt-to-total equity (-0.203), a negative and significant relationship (-0.707) with staff costs-to-income ratio, and a negative and moderate relationship (-0.431) with loan loss-to-income ratio. The significance values showed that return on assets had significant values of less than 0.05 with operating ratio, staff costs-to-income ratio, and loan loss-to-income ratio, while had no significant relationships with debt-to-total assets and debt-to-total equity which had significance values of 0.305 and 0.198 respectively.

b) Return on Equity

Table 4.5: Correlation of Return on Equity and the Independent Variables

		Return on equity	Operating ratio	Debt-to-total assets	Debt-to-total equity	Staff costs to income ratio	Loan loss to income ratio
Return on equity	Pearson Correlation	1	-.707**	-.155	-.170	-.618**	-.591**
	Sig. (2-tailed)		.000	.328	.280	.000	.000
Operating ratio	Pearson Correlation	-.707**	1	.065	.063	.967**	.186
	Sig. (2-tailed)	.000		.684	.692	.000	.237
Debt-to-total assets	Pearson Correlation	-.155	.065	1	.898**	.041	.101
	Sig. (2-tailed)	.328	.684		.000	.796	.525
Debt-to-total equity	Pearson Correlation	-.170	.063	.898**	1	.007	.122
	Sig. (2-tailed)	.280	.692	.000		.966	.440
Staff costs to income ratio	Pearson Correlation	-.618**	.967**	.041	.007	1	.028
	Sig. (2-tailed)	.000	.000	.796	.966		.860
Loan loss to income ratio	Pearson Correlation	-.591**	.186	.101	.122	.028	1
	Sig. (2-tailed)	.000	.237	.525	.440	.860	

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between return on equity and the independent variables as provided in Table 4.5 above showed that ROE had a negative and significant relationship (-0.707) with operating ratio, a negative but non-significant relationship (-0.155) with debt-to-total assets, a negative but non-significant relationship (-0.170) with debt-to-total equity, a negative and significant relationship (-0.618) with staff costs-to-income ratio, and a negative but moderate relationship (-0.591) with loan loss-to-income ratio. The significance values showed that return on equity had significant values of less than 0.05 with operating ratio, staff costs-to-income ratio, and loan loss-to-income ratio, while had no significant relationships with debt-to-total assets and debt-to-total equity which had significance values of 0.328 and 0.280 respectively.

4.3 Effect of Ownership Structure on Financial Performance

The first objective of the study was to determine the effect of ownership structure on financial performance of commercial banks in Kenya. The analysis was done for both return on assets and return on equity and presented as below:

4.3.1 Ownership Structure and Return on Assets

a) Public-Private Ownership and Return on Assets

Table 4.6: Public-Private Ownership and ROA Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.299ª	.089	.086	.0334023

a. Predictors: (Constant), Private-public ownership

Table 4.6 above shows the R, R^2, and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As shown in Table 4.6, R indicated a value of 0.229, while adjusted R^2 indicated a value of 0.086, and a standard estimate 0.033. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on assets of 8.6% as a result of public-private ownership.

Table 4.7: Public-Private Ownership and Return on Assets ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.035	1	.035	31.555	.000ª
	Residual	.359	322	.001		
	Total	.394	323			

a. Predictors: (Constant), Private

b. Dependent Variable: Return On Assets

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables significantly predict the dependent variable. It tests the statistical significance of the model. The F-test has two numbers for its degrees of freedom and from the table, F $(1,322)$ = 31.555 and p-value 0.000 <0.05. This implied that public-private

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ownership structure regression model is statistically significant in predicting the return on assets of commercial banks in Kenya.

Table 4.8: Private-Public Ownership Effect on Return on Assets Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.020	.002		9.031	.000
	Private	.023	.004	.299	5.617	.000

The regression coefficients table indicates the slope of both the unstandardized and standardized coefficients of the variables. The analysis coded the public-private ownership variable into two dichotomous values: private ownership had a value of 1 and public ownership had a value of 0. The study later analysed them as dummy variables so as to analyse the impact of private or public ownership on financial performance. From the analysis as indicated in Table 4.8, private ownership had a value of 0.023. This value implied that private ownership had a significant effect on Return on Assets with a significant value of 0.00 and a positive coefficient of 0.023 above that of public ownership towards return on assets. This finding indicated that private-public ownership is a significant predictor of return on assets of commercial banks in Kenya at 5 percent significance level.

b) Foreign-Local Ownership and Return on Assets

Table 4.9: Foreign-Local Ownership and ROA Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.056[a]	.003	.000	.0349455

a. Predictors: (Constant), Local

Table 4.9 above shows the R, R^2, and the standard error of the estimates. As shown in the table, R indicated a value of 0.056, while adjusted R^2 indicated a value of 0.003, and a standard estimate 0.034. The adjusted R^2 is used for multiple regression analysis and it indicated that there was no variability in return on assets as a result of foreign-local ownership.

Table 4.10: Local-Foreign Ownership and Return on Assets ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	1.018	.314[a]
	Residual	.393	322	.001		
	Total	.394	323			

a. Predictors: (Constant), Local-foreign ownership

b. Dependent Variable: Return On Assets

The ANOVA table tested whether the overall regression model for local-foreign ownership is a good fit for the data, and also whether the independent variables significantly predict the dependent variable. It tested the statistical significance of the model. The F-test had two numbers for its degrees of freedom and from the table, $F_{(1,322)} = 1.018$ and p-value $0.314 > 0.05$. This implied that foreign-local ownership structure regression model is not statistically significant in predicting the return on assets of commercial banks in Kenya.

Table 4.11: Private-Public Ownership Effect on Return on Assets Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.028	.002		12.013	.000
	Local	-.004	.004	-.056	-1.009	.314

a. Dependent Variable: Return On Assets

The regression coefficients table indicated the slope of both the unstandardized and standardized coefficients of the variables. The analysis coded the local-foreign ownership variable into two dichotomous values: private ownership had a value of 1 and public ownership had a value of 0. The study analysed them as dummy variables so as to analyse the impact of local or foreign ownership on financial performance. From the analysis as indicated in Table 4.4 above local ownership had a value of -0.004 and a significant value of 0.314. This value implied that local ownership had no significant effect on Return on Assets with a significant value of 0.314 and a coefficient value of -0.04 below that of foreign ownership towards return on assets. This finding indicated that local-foreign ownership is not a significant predictor of return on assets of commercial banks in Kenya at 5 percent significance level.

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4.3.2 Ownership Structure and Return on Equity

a) Public-Private Ownership and Return on Equity

Table 4.12: Public-Private Ownership and ROE Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.293[a]	.086	.083	.1802059

a. Predictors: (Constant), Private

Table 4.12 above shows the R, R^2, and the standard error of the estimates. As shown in the table, R indicated a value of 0.293, while adjusted R^2 indicated a value of 0.083, and a standard estimate 0.180. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on assets of 8.3% as a result of public-private ownership.

Table 4.13: Public-Private Ownership and Return on Equity ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.986	1	.986	30.348	.000[a]
	Residual	10.457	322	.032		
	Total	11.442	323			

a. Predictors: (Constant), Private

b. Dependent Variable: Return on equity

The ANOVA table as indicated in Table 4.13 analysed whether the overall regression model for public-private ownership is a good fit for the data, and whether the independent variables (public-private ownership) significantly predict Return on Equity for Commercial Banks. The F-test has two numbers for its degrees of freedom and from the table, $F (1,322) = 30.348$ and p-value 0.000 <0.05. This implied that public-private ownership structure regression model is statistically significant in predicting the return on equity of commercial banks in Kenya.

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Table 4.14: Public-Private Ownership Effect on Return on Equity Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.135	.012		11.396	.000
	Private	.123	.022	.293	5.509	.000

a. Dependent Variable: Return on equity

The regression coefficients table indicated the slope of both the unstandardized and standardized coefficients of the variables. The analysis coded the local-foreign ownership variable into two dichotomous values: private ownership had a value of 1 and public ownership had a value of 0. The study analysed them as dummy variables so as to analyse the impact of private or public ownership on financial performance. From the analysis as indicated in Table 4.14, private-public ownership had a coefficient value of 0.123 and a significant value of 0.00. The values implied that private ownership had a significant effect on Return on Equity towards return on assets and 0.123 units more than public ownership.

b) Foreign-Local Ownership and Return on Equity

Table 4.15: Foreign-Local Ownership and ROE Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.039[a]	.002	.002	.1883609

a. Predictors: (Constant), Local

Table 4.15 above shows the R, R^2, and the standard error of the estimates. As shown in the table, R indicated a value of 0.039, while adjusted R^2 indicated a value of 0.002, and a standard estimate 0.188. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on assets of 2.0% as a result of foreign-local ownership.

Table 4.16: Foreign-Local Ownership and Return on Equity ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.018	1	.018	.499	.480[a]
	Residual	11.425	322	.035		
	Total	11.442	323			

a. Predictors: (Constant), Local

b. Dependent Variable: Return on equity

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables (foreign-local ownership) significantly predict the dependent variable. It tests the statistical significance of the model. The F-test had two numbers for its degrees of freedom and from the table, $F_{(2,322)} = 0.499$ and p-value $0.48 > 0.05$. A p-value greater than 0.05 implied that the foreign-local ownership regression model is not statistically significant in predicting the return on equity of commercial banks in Kenya.

Table 4.17: Foreign-Local Ownership Effect on Return on Equity Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.174	.012		14.070	.000
	Local	-.016	.023	-.039	-.706	.480

a. Dependent Variable: Return on equity

The regression coefficients table indicated the slope of both the unstandardized and standardized coefficients of the variables. The analysis coded the local-foreign ownership variable into two dichotomous values: local ownership had a value of 1 and private ownership had a value of 0. The study analysed them as dummy variables so as to analyse the impact of local or foreign ownership on financial performance. From the analysis as indicated in Table 4.17, local ownership had a coefficient value of -0.016 and a significant value of 0.48. The values implied that local ownership had no significant effect on Return on Equity but 0.016 units less than foreign ownership.

4.4 Effect of Capital Structure on Financial Performance

The objective of the study was to determine the effect of capital structure on financial performance of commercial banks in Kenya. The analysis was done for both return on assets and return on equity and presented as below:

4.4.1 Return on Assets and Capital Structure

Table 4.18: Return on Assets-Capital Structure Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.228[a]	.052	.046	.0341286

a. Predictors: (Constant), Debt-to-total equity, Debt-to-total assets

Table 4.18 above shows the R, R^2, and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As shown in Table 4.18, R indicated a value of 0.228, while adjusted R^2 indicated a value of 0.052, and a standard estimate 0.034. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on assets of 5.2% as a result of capital structure, i.e. debt-to-total equity and debt-to-total assets. The table also indicated an overall correlation coefficient of 0.228 indicating that there is no significant relationship between the dependent variable, return on assets, and independent variables, debt-to-total equity and debt-to-total assets.

Table 4.19: Return on Assets-Capital Structure ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.021	2	.010	8.834	.000[a]
	Residual	.374	321	.001		
	Total	.394	323			

a. Predictors: (Constant), Debt-to-total equity, Debt-to-total assets

b. Dependent Variable: Return On Assets

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables significantly predict the dependent variable. It tests the statistical significance of the model. The F-test has two numbers for its degrees of freedom and

from the table, F (2,321) = 8.834 and p-value 0.000 <0.05. A p-value less than 0.05 implied that the capital structure regression model is statistically significant in predicting the return on assets of commercial banks in Kenya.

Table 4.20: Return on Assets-Capital Structure Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.027	.003		8.820	.000
	Debt-to-total assets	.144	.047	.302	3.082	.002
	Debt-to-total equity	-.021	.005	-.406	-4.150	.000

a. Dependent Variable: Return On Assets

The regression coefficients table indicates the slope of both the unstandardized and standardized coefficients of the variables. Table 4.20 above indicated unstandardized coefficients for the variables: Debt-to-total assets had a standardized beta coefficient of 0.302, while debt-to-total equity had a standardized beta coefficient of -0.406. The significant values from the table are 0.00 for the regression constant, a value of 0.02 for debt-to-total assets variable, and a value of 0.00 for debt-to-total equity variable. This finding indicated that debt-to-total assets and debt-to-total equity variables and the constant are reliable predictors of financial performance of commercial banks in Kenya at 5 percent significance level. The regression was indicated as:

$$ROA = 0.027 + 0.144_{x1} - 0.021_{x2}$$

The equation implies that with regards to capital structure only, ROA would have a constant of 0.027 and a unit increase in debt-to-total assets ratio would increase the ROA by 0.144, and a unit increase in debt-to-equity assets ratio would reduce ROA by 0.021.

4.4.2 Return on Equity and Capital Structure

Table 4.21: Return on Equity-Capital Structure Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.165[a]	.027	.021	.1861999

a. Predictors: (Constant), Debt-to-total equity, Debt-to-total assets

Table 4.21 above shows the R, R^2, and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As shown in Table 4.21, R indicated a value of 0.165, while adjusted R^2 indicated a value of 0.021, and a standard estimate 0.186. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on equity of 2.1% as a result of both debt-to-total assets and debt-to-total equity. The table also indicated an overall correlation coefficient of 0.165 indicating that there is a low relationship between the dependent variable, return on equity, and independent variables, debt-to-total assets and debt-to-total equity.

Table 4.22: Return on Equity-Capital Structure ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.313	2	.157	4.514	.012ᵃ
	Residual	11.129	321	.035		
	Total	11.442	323			

a. Predictors: (Constant), Debt-to-total equity, Debt-to-total assets

b. Dependent Variable: Return on equity

The ANOVA table provided results on whether the overall regression model is a good fit for the data, and whether the independent variables significantly predict the dependent variable. The F-test has two numbers for its degrees of freedom and the table indicated, $F_{(2,321)} = 4.514$ and p value $0.012 < 0.05$. This indicated that capital structure regression model is statistically significant in predicting the return on equity of commercial banks in Kenya.

Table 4.23: Return on Equity-Capital Structure Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.200	.016		12.148	.000
	Debt-to-total assets	-.064	.254	-.025	-.253	.801
	Debt-to-total equity	-.040	.027	-.144	-1.452	.147

a. Dependent Variable: Return on equity

The regression coefficients table indicates the slope of both the unstandardized and standardized coefficients of the variables. Table 4.23 above indicated unstandardized coefficients for the variables: Debt-to-total assets had an unstandardized beta coefficient of -0.064, while debt-to-total equity had an unstandardized beta coefficient of -0.040. The significant values from the table are 0.00 for the regression constant, a value of 0.801 for debt-to-total assets variable, and a value of 0.147 for debt-to-total equity variable. This implied that debt-to-total assets and debt-to-total equity had no significant impact on the return on equity of banks in Kenya. The regression was indicated as:

$$ROE = 0.2 - 0.064_{x1} - 0.04_{x2}$$

The equation implies that with regards to capital structure only, ROE would have a constant of 0.2 and a unit increase in debt-to-total assets ratio would decrease the ROE by 0.064, and a unit increase in debt-to-equity assets ratio would reduce ROE by 0.04.

4.5   Effect of Cost Structure on Financial Performance

The third and final objective of the study was to determine the effect of cost structure on financial performance of commercial banks in Kenya. The analysis was done for both return on assets and return on equity and presented as below:

4.5.1   Return on Assets and Cost Structure

Table 4.24: Return on Assets-Cost Structure Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.563a	.317	.310	.0290231

a. Predictors: (Constant), Operating ratio, Loan loss to income ratio, Staff costs to income ratio

Table 4.24 above shows the R, R^2, and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As shown in Table 4.24, R indicated a value of 0.563, while adjusted R^2 indicated a value of 0.310, and a standard error of the estimate 0.029. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on assets of 31.0% as a result of operating ratio, loan loss-to-income ratio, and staff costs-

to-income ratio. The table also indicated an overall correlation coefficient of 0.563 indicating that there is a mild relationship between the dependent variable, return on assets, and independent variables, operating ratio, loan loss-to-income ratio, and staff costs-to-income ratio.

Table 4.25: Return on Assets-Cost Structure ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.125	3	.042	49.433	.000[a]
	Residual	.270	320	.001		
	Total	.394	323			

a. Predictors: (Constant), Operating ratio, Loan loss to income ratio, Staff costs to income ratio

b. Dependent Variable: Return On Assets

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables significantly predict the dependent variable. It tests the statistical significance of the model. The F-test has two numbers for its degrees of freedom and from the table, $F_{(3,320)} = 49.433$ and p-value $0.00 < 0.05$. This indicated that cost structure regression model is statistically significant in predicting financial performance (return on assets) of commercial banks in Kenya.

Table 4.26: Return on Assets-Cost Structure Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.147	.002		19.324	.000
	Staff costs to income ratio	.000	.000	-.241	-.787	.432
	Loan loss to income ratio	-.011	.002	-.301	-5.808	.000
	Operating ratio	-7.193E-5	.000	-.223	-.725	.469

a. Dependent Variable: Return On Assets

The regression coefficients as indicated in Table 4.26 indicated the slope of both the unstandardized and standardized coefficients of the variables. The table indicated the unstandardized coefficients for the variables: Staff costs to income ratio had a standardized beta coefficient of -0.241, loan loss to income ratio had a standardized beta coefficient of -0.301, and

operating ratio had a standardized beta coefficient of -0.223. The significant values from the table are 0.00 for the regression constant, a value of 0.432 for staff costs to income ratio variable, a value of 0.00 for loan loss to income ratio variable, and a value of 0.469 for operating ratio variable. This indicates that staff costs to income ratio and operating ratio variables are not significant predictors of return on assets of commercial banks in Kenya, while the regression constant and loan loss to income ratio are good predictors of return on assets (financial performance) of commercial banks in Kenya at 5 percent significance. The regression was indicated as:

$$ROA = 0.147 - 0.011_{x2} - 0.00072_{x3}$$

The equation implies that with regards to cost structure only, ROA would have a constant of 0.147 and would have no change with change in staff costs-to-income ratio but increases in the two variables loan loss-to-income ratio, and operating ratio. A unit increase in loan loss-to-income ratio would reduce ROA by 0.011, and a unit increase in operating ratio reduced ROA by 0.00072.

4.5.2 Return on Equity and Cost Structure

Table 4.27: Return on Equity-Cost Structure Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632ª	.400	.394	.1465157

a. Predictors: (Constant), Operating ratio, Loan loss to income ratio, Staff costs to income ratio

Table 4.27 above shows the R, R^2, and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As the table shows, R indicated a value of 0.632, while adjusted R^2 indicated a value of 0.394, and a standard estimate 0.146. The adjusted R^2 is used for multiple regression analysis and it indicated that there was variability in return on equity of 39.4% as a result of operating ratio, loan loss-to-income ratio, and staff cost-to-income ratio. The table also indicated an overall correlation coefficient of 0.632 indicating that there was a strong relationship between the dependent variable, return on equity, and independent variables, operating ratio, loan loss-to-income ratio, and staff cost-to-income ratio.

Table 4.28: Return on Equity-Cost Structure ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.573	3	1.524	71.006	.000ᵃ
	Residual	6.869	320	.021		
	Total	11.442	323			

a. Predictors: (Constant), Operating ratio, Loan loss to income ratio, Staff costs to income ratio

b. Dependent Variable: Return on equity

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables significantly predict the dependent variable. It tests the statistical significance of the model. The F-test has two numbers for its degrees of freedom and from the table, $F_{(3,320)} = 71.006$ and p value $0.00 < 0.05$. This indicated that the cost structure regression model is statistically significant in predicting the return on equity of commercial banks in Kenya.

Table 4.29: Return on Equity-Cost Structure Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.282	.012		23.163	.000
	Staff costs to income ratio	-.004	.001	-.979	-3.415	.001
	Loan loss to income ratio	-.068	.010	-.341	-7.033	.000
	Operating ratio	-.002	.001	-1.391	-4.832	.000

a. Dependent Variable: Return on equity

The regression coefficients table indicates the value of both the unstandardized and standardized coefficients of the variables. Table 4.29 above indicated unstandardized coefficients for the variables: Staff costs-to-income ratio had an unstandardized beta coefficient of -0.004; loan loss-to-income ratio had an unstandardized beta coefficient of -0.068, while operating ratio had a standardized beta coefficient of -0.002. The significant values from the table are 0.00 for the regression constant, a value of 0.001 for staff costs-to-income ratio variable, a value of 0.00 for loan loss-to-income ratio variable, and a value of 0.00 for operating ratio variable. This indicated

that staff costs-to-income ratio, loan loss-to-income ratio, and operating ratio were significant in the prediction of return on equity at 5 percent significance level. The regression was indicated as:

$$ROE = 0.282 - 0.004_{x1} - 0.068_{x2} - 0.002_{x3}$$

The equation implies that with regards to cost structure only, ROE would have a constant of 0.282 and would decrease with increases in the three variables staff costs-to-income ratio, loan loss-to-income ratio, and operating ratio. Therefore, a unit increase in staff cost-to-income ratio would reduce the ROE by 0.004, a unit increase in loan loss-to-income ratio would reduce ROE by 0.068, and a unit increase in operating ratio reduced ROE by 0.002.

4.6 Chapter Summary

The chapter presented the analysis findings whose technique was done using multiple regression analysis. The dependent variable in the analysis was financial performance which was measured using return on assets and return on equity. The independent variables were ownership structure, capital structure, and cost structure. With regards to ownership structure, the results indicated that ownership structure is a good predictor of both return on assets and return on equity despite the low correlations. The findings also indicated that capital structure is a good predictor of both return on assets and return on equity of commercial banks in Kenya at 5 percent significance. However, there was also low correlation between financial performance and capital structure. Finally, the study results indicated that cost structure is not only a good predictor of both return on assets and return on equity at 5 percent confidence level but also had significant correlation.

CHAPTER FIVE

5.0   DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

This chapter contains the summary and conclusion of the study with regards to the effect of bank's micro structure on financial performance of Kenya's commercial banks. The chapter looked at the summary of the study, presented the conclusion of the study based on the results of the analysis, and finally gave the study recommendations.

5.2   Summary of the Study

The study was guided by three specific research objectives which were analysed and presented in tables for interpretation. The objectives of the study were; to determine the effect of ownership structure on financial performance of commercial banks in Kenya; to determine the effects of capital structure on financial performance of commercial banks of Kenya; and to analyse the effect of cost structure on financial performance of commercial banks in Kenya. The study employed a descriptive cross-sectional research design as it analysed all the commercial banks in Kenya at the same time points to determine the research objective. The study's population consisted of all the commercial banks and since they were 42 in number, there was no sampling and therefore census applied. The study utilised secondary data to collect data on bank foreign ownership, public ownership, and relevant financial ratios. The data was selected from banks published annual reports, bank supervision reports from CBK and company websites. Data analysis was done using multiple regression analysis where the dependent variable was the financial performance of commercial banks which was measured using the return on assets and return on equity. The independent variables were the ownership structure, capital structure, and cost structure. Ownership structure was measured using public-private ownership of banks and foreign-local ownership of the banks; capital structure was measured using the debt-equity ratio and debt-assets ratio; and cost structure was measured using the operating ratio, staff cost-to-income ratio, and loan loss-to-income ratio.

The study findings indicated that the first independent variable ownership structure has a significant impact on return on assets and return on equity. In particular, private-public ownership had a significant impact on both return on assets and return on equity while foreign-local

ownership had no significant impact on both return on assets and return on equity. The study indicated that with regards to the second variable, capital structure, it had a significant impact on both return on assets and return on equity. The debt-to-total assets and debt-to-total equity both had a significant impact on return on assets but, however, had no significant impact on return on equity at 5 percent confidence level.

The results based on the third objective indicated that cost structure has a significant effect on return on assets and return on equity. With regards to return on assets, the study indicated that loan loss-to-income ratio has a significant effect on ROA while staff costs-to-income ratio and operating ratio have no significant effect on ROA at 5 percent significant rate. With regards to return on equity, the study results indicated that all the variables, staff costs-to-income ratio, loan loss-to-income ratio, and operating ratio have a significant effect on ROE.

5.3   Discussion

5.3.1   Ownership Structure and Financial Performance of Commercial Banks in Kenya

The first objective of the study was to determine the effects of ownership structure on financial performance of Kenya's commercial banks. Ownership structure in the study was operationalized by public-private ownership and foreign-local ownership. Public-private ownership analysed whether public ownership or private ownership of banks affect their financial performance and were denoted by assigning them binomial values where publicly-owned banks were denoted using a 0 while privately-owned banks were denoted using a 1. Foreign-local ownership analysed whether the banks were owned by foreigners or by local citizens and were also denoted using binomial values where foreign-owned banks were denoted using a 0 and locally-owned banks were denoted using a 1. The study's ANOVA table with regards to effect of ownership structure on return on assets indicated a p-value of 0.000 which implied that the ownership structure regression model was a good predictor of return on assets since the value is less than the significance level of 0.05. The variable private-public ownership had a significance value of 0.00 and coefficient value of 0.023 while foreign-local ownership had a significance value of 0.314 and a coefficient value of -0.04 less than that of foreign ownership. This meant that private-public ownership had an impact on return on asset while foreign-local ownership had no significant impact on return on assets at 5 percent significance value.

With regards to effect of ownership structure on return on equity, the study's ANOVA table on return on equity indicated a p value of 0.00 which implied that the private-public ownership structure regression model was a good predictor of return on equity since the value is less than the significance level of 0.05. This meant that ownership structure has an impact on return on equity. The variable private-public variable had a significance value of 0.00 and coefficient value of 0.123 while foreign-local ownership had a significance value of 0.480 and local ownership coefficient value of -0.016 less than that of foreign ownership. This meant that private-public ownership had an impact on return on equity while foreign-local ownership had no significant impact on return on equity at 5 percent significance value.

In general, it was noted that ownership structure has significant impact on financial performance of commercial banks in Kenya since the significance values were less than 0.05 for both return on assets and return on equity. The study results are consistent with that of Dietrich & Wanzenried (2011), and Farazi *et al* (2011) whose studies indicated that privately-owned financial institutions perform better compared to publicly-owned banks. This could have been due to the fact that foreign owned banks are considered to have applied management skills and expertise in other nations over a period. Also, the study is consistent with that of Cornett, Guo, Khaksari and Tehranian (2009) who indicated that government-owned banks are less profitable compared to private banks since they lend riskier loans which increase their credit risk.

5.3.2 Capital Structure and Financial Performance of Commercial Banks in Kenya

The second objective of the study was to analyse the effect of capital structure on financial performance of commercial banks in Kenya. Capital structure was measured in two ways, namely, debt-equity ratio and debt-assets ratio. The three ratio scale variables were calculated for the commercial banks in Kenya over the period between 2008 and 2015.From the results, the study indicated that capital structure had an R value of 0.228 implying a low relationship between capital structure and return on assets, an adjusted R^2 value of 0.046 implying that the variables debt-equity ratio and debt-asset ratio account for 4.6% of ROA variability. The study's ANOVA table with regards to effect of capital structure on return on assets indicated a p value of 0.000 which implied that the capital structure regression model was a good predictor of return on assets since the value is less than the significance level of 0.05. The variable debt-equity ratio had a significance value

of 0.002 and coefficient value of 0.302 while debt-assets ratio had a significance value of 0.000 and a coefficient value of -0.406. This meant that both debt-equity ratio and debt-assets ratio had an impact on return on assets at 5 percent significance value.

With regards to effect of capital structure on return on equity, the study indicated an R value of 0.165 indicating that there is a low relationship between a bank's capital structure and return on equity. The results also indicated an R^2 value of 0.021 which implied that the variables debt-equity ratio and debt-asset ratio account for 2.1% of ROE variability. The study's ANOVA table with regards to effect of capital structure on return on equity indicated a p value of 0.012 which implied that the capital structure regression model was a good predictor of return on equity since the value is less than the significance level of 0.005. The variable debt-equity ratio had a significance value of 0.801 and coefficient value of -0.253 while debt-assets variable had a significance value of 0.147 and a coefficient value of -1.452. This meant that debt-equity ratio and debt-assets ratio had no significant impact on return on equity at 5 percent significance value.

In overall, it was noted that capital structure has an impact on financial performance of commercial banks in Kenya since the significance values were less than 0.05 for both return on assets and return on equity. This study's results were consistent with the study done by Saeed *et al* (2013) who indicated a positive relationship between determinants of capital structure and performance (return on assets, return on equity, and earnings per share) of banking industry. However, the study results were in contrast to the study done by Siddik *et al* (2016) who indicated that there is a negative impact of capital structure on bank's performance, and also that done by Kuria (2013) who indicated that there is no significant relationship between capital structure and financial performance of commercial banks in Kenya.

5.3.3 Cost Structure and Financial Performance of Commercial Banks in Kenya

The third and final objective of the study was to analyse the effect of cost structure on financial performance of commercial banks in Kenya. Cost structure was operationalized using staff cost-income ratio, loan loss/impairment-income ratio, and the operating ratio for commercial banks in Kenya between 2008 and 2015. From the results, the study indicated that cost structure had an R value of 0.563 implying a moderate relationship between cost structure and return on assets, an adjusted R^2 value of 0.310 implying that the variables staff costs-income ratio, loan

loss/impairment-income ratio, and operating ratio account for 31.0% of return on assets variability. The study's ANOVA table with regards to effect of cost structure on return on assets indicated a p value of 0.000 which implied that the capital structure regression model was a good predictor of return on assets since the value is less than the significance level of 0.05. The variable staff cost-income ratio had a significance value of 0.432 and coefficient value of -0.241; loan loss/impairment-income ratio had a significance value of 0.000 and a coefficient value of -0.301, while the operating ratio had a significance value of 0.469 and a coefficient value of -0.223. This meant that loan loss/ impairment-income ratio had an impact on return on assets while staff cost-income ratio and operating ratio had no significant impact on return on assets at 5 percent significance value.

With regards to effect of cost structure on return on equity, the study indicated an R value of 0.632 indicating that there is a moderate relationship between a bank's cost structure and return on equity. The results also indicated an R^2 value of 0.394 which implied that the variables staff costs-income ratio, loan loss/impairment-income ratio, and operating ratio account for 39.4% of ROE variability. The study's ANOVA table with regards to effect of cost structure on return on equity indicated a p value of 0.000 which implied that the cost structure regression model was a good predictor of return on equity since the value is less than the significance level of 0.005. The variable staff cost-income ratio had a significance value of 0.001 and coefficient value of 0.979, loan loss/impairment-income ratio had a significance value of 0.000 and a coefficient value of -0.341, while operating ratio had a significance value of 0.000 and a coefficient value of -1.391. This meant that all the three variables had a significant impact on return on equity at 5 percent significance value.

In overall, it was noted that cost structure had an impact on financial performance of commercial banks in Kenya since the significance values were less than 0.05 for both return on assets and return on equity. This study's results were consistent with the study done by Obanyi (2013) and that also done by Rao & Lakew (2012) who indicated that operating costs negatively and significantly influence profitability of commercial banks in Nigeria and Ethiopia respectively.

5.4 Conclusions

5.4.1 Ownership Structure and Financial Performance in Banks

From the analysis of data provided and the findings, the study indicated that ownership structure has a significant impact on financial performance. This was however the case with private-public ownership of banks which had significant effects on return on asset and return on equity. This was seen with a negative coefficient of private-public ownership on financial performance. The findings led to the conclusion that ownership structure has an effect on financial performance with privately-owned companies performing better than publicly-owned companies. Commercial bank managers would therefore want to work in privately-owned banks since they would earn more especially when there is profitability-related compensation. The study also concludes that there is no significant difference in financial performance of commercial banks, whether locally-owned or foreign-owned due to the small difference in performance between them.

5.4.2 Capital Structure and Financial Performance in Banks

The study analysed capital structure and its effect on financial performance in commercial banks in Kenya and from the findings, it can be concluded that capital structure is important in financial performance of commercial banks in Kenya. The value of assets and how they have been financed is important and every individual bank should identify a ratio that would positively impact their financial performance by reducing their debt-to asset and debt-to-equity ratios. Since the income for commercial banks varies from time to time, there is no optimal value of assets and equity, but they should however strive have reasonable balance in their debt and equity values.

5.4.3 Cost Structure and Financial Performance in Banks

After the analysis was done and findings presented, the study concluded that cost management through the structure has a huge impact on financial performance of commercial banks in Kenya. From the three ratios that were analysed, loan loss to income ratio has a huge impact on return on assets compared to the other variables, operating ratio and staff cost-to-income ratio. For return on equity, however, operating ratio has the biggest impact, followed by staff cost-to-income ratio, then loan loss-to-income ratio. This means that for commercial banks to improve their profitability, they need to reduce their operating ratio as much as possible, which means that operational

expenses should be greatly managed. Also, other costs such as staff costs and loan losses should be minimized.

5.5   Recommendations

5.5.1   Recommendations for Improvement

5.5.1.1   Ownership structure and Financial Performance in Banks

The study recommends that proper management guidelines should be outlined in both public and private banks since the difference in performance could be as a result of management and governance issues. Proper governance would ensure that there is transparency, accountability, and responsiveness to the banks' affairs to minimize risks. Previous financial scandals in the banking sectors have made the banking sector to implement stringent governance rules and laws to be followed. The central bank of Kenya should ensure that ownership structure is constituted in a way that it boosts governance and eventually the financial performance.

5.5.1.2   Capital Structure and Financial Performance in Banks

The study recommends that banks should identify their optimal capital structure which improves their financial performance. Cost of debt and its impact on financial performance should be analysed by individual banks, with the analysis of benefits, challenges and costs helping in decision making of whether to take up external financing, and to what amount. The commercial banks should also monitor the amount of assets that they have since they are used for revenue generation, and therefore in conjunction with the return on assets ratio, they can identify the optimal assets value to have. There is also the Central Bank of Kenya requirements that outline the recommended capital structure ratios so that the banks do not end up being thinly capitalized.

5.5.1.3   Cost Structure and Financial Performance in Banks

Cost structure is mainly an internal management issue and the study recommends that commercial banks should analyse their costs well, especially due to competitiveness in the industry. Technological advances have paved way for new business models which reduce their costs and improve efficiency. Commercial banks should therefore strive to adopt technologies that give them competitive advantage but not lead to reduction in quality of service such as drastic reduction in

employee number without adequate backup. Loan losses and impairment should also be minimized through proper vetting of loan applicants, including the applicants' loan history and the credit reference bureau. This would reduce the loan losses which currently average around 4-5 percent of total loans issued.

5.5.2   Recommendations for Further Studies

The study analysed the effect of micro structure on financial performance of Kenya's commercial banks. The banking sector is an important one in the economy, which indicates that the sector's profitability is important. The study however recommends that other industries such as manufacturing or commercial to be analysed and comparison with that of the banking industry made. The study also recommends that future studies should analyse other factors, both micro and macro, that affect financial performance of companies in all sectors.

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APPENDIX I: DATA COLLECTION SHEET

	Source	2006 Kes '000	2007 Kes '000	2008 Kes '000	2009 Kes '000	2010 Kes '000	2011 Kes '000	2012 Kes '000	2013 Kes '000	2014 Kes '000	2015 Kes '000
Profit after tax	F.S										
Total assets											
Return on assets											
Total equity											
Return on equity											
Net interest income											
Non-interest income											
Total operating costs											
Operating ratio											
Short-term debt											
Total assets											
Total equity											
Debt to total assets											
Debt to total equity											
Staff costs											
Staff costs to income ratio											
Loan loss											
Impaired loans											
Loan loss/impairment to income ratio											
Bank Ownership											
Foreign - 0											
Local - 1											
Key:											
F.S = financial statements											
0,1 = dummy variables											

APPENDIX II: WORK PLAN

Month / Activity	December 2016 – January 2017	January - March 2017	March- May 2016	June 2017	July – August 2017
Concept paper development & approval of topic	✓				
Proposal development		✓			
Data Collection			✓		
Data Analysis & Conclusion				✓	
Project submission					✓

APPENDIX III: RESEARCH BUDGET

	Expenses	Ksh
1	Proposal Development	
	Materials	2,000
	Printing	2,000
	Photocopying	2,000
2	Data Collect (Fieldwork)	
	Photocopying	4,000
	Travelling	5,000
	Research Assistant	10,000
3	Data Analysis & Interpretation	
	Data Analysis	10,000
4	Report Writing & Dissemination	
	Report Writing	5,000
	Binding & Dissemination	2,000
5	Miscellaneous	10,000
	TOTAL	**52,000**