CAPITAL STRUCTURE, OWNERSHIP IDENTITY AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE IN KENYA

BY

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DECLARATION

Declaration by Candidate

This research project is my original work and has not been presented for degree in any other institution or university. No part of this research project should be reproduced without prior consent from the author and/or Moi University.

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DEDICATION

This research is dedicated to my parents, siblings and entire Moi University for it is through their assistance that this was achieved.

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ABSTRACT

Sound financial health of a bank is the guarantee not only to its depositors but is equally significant for the shareholders, employees and the whole economy as well. Financial performance provides an avenue for the evaluation of business activities in objective monetary terms. Despite the good overall financial performance of banks in Kenya, there are a couple of banks which were declaring losses and faced bailouts. The purpose of this research therefore was to investigate the moderating effect of ownership identity on relationship between Capital structure and financial performance of commercial banks listed at Nairobi Security Exchange. The study's specific objectives were to determine the effects of debt and equity on financial performance, as well as to assess the moderating role of ownership identity on each of the relationships. The main theories of this study were modigliani and miller (mm) theory, trade off theory, market timing theory, pecking order theory agency cost theory. The study used explanatory research design. The target population of the study was all commercial banks listed at Nairobi Securities Exchange. A survey of all 11 listed commercial banks was conducted between the periods 2003 to 2018. Secondary data obtained from the audited financial reports of the banks were used in the study. Data analysis was conducted using STATA version 13software. The panel data was used to analyze both descriptive and inferential statistics. Descriptive statistical techniques specifically mean, standard deviation, minimum and maximum were used. Inferential statistics that is multiple regression analysis and correlation analysis were used to predict and explain the nature and significance of relationships between the independent and dependent variables. The study results were presented using tables and graphs. To check for random and fixed effects diagnostics the study used Hausman's test. The recommendations were of significance to bank's shareholders and management, investors and for policy implication. Capital structure was found to have significant effect on financial performance with its effect moderated by ownership identity. The study results specifically indicate a negative and significant effect of debt financing (β = -0.06745, $P<0.05$) on financial performance, while equity financing (β = 0.097163, $P<0.05$) indicated a positive and significant effect. Ownership identity moderates the relationship between; debt financing (β=-0.00201, $P<0.05$, ΔR^2=0.025%), equity financing (β= 0.002, $P<0.05$, ΔR^2=0.020%) and financial performance. Capital structure specifically debt financing decreases financial performance since its expensive to acquire and to service due to high interest rates paid on debt, while equity financing increases financial performance since owners are paid dividends which depend on the profitability of the bank. It is therefore in the best interest for banks to refrain from using more debt, but instead finance their operations using more equity financing. The study findings agrees with the trade-off theory, In contrast, the study disagrees with the Myres and Majluf (1984) pecking order hypothesis that debt is preferred to equity. Finally, the Modigliani and miller (mm) theory contradicts with the findings. The decision about which source of finance to use is vital and affects profitability of the bank as shown by the results. It is therefore recommended that banks should choose the right financial mix that maximizes the financial performance.

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ABBREVIATIONS AND ACCRONYMS

CMA	Capital Market Authority
GM	Gross Margin
MM	Modigliani and Miller
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROE	Return on Equity
UBA	United Bank of Africa
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Capital structure - It refers to the composition of equity and debt capital in a proportion that enhances sound operations of a firm, (Friend 2008).

Debt - It is a liability whereby a firm borrows a certain amount of money at an interest, Staking & Babbel, (1995).

Equity – It is money put up and owned by the shareholders. Equity enables a firm to get funds without incurring debt (Sibilkov 2009).

Financial Performance This is the process of measuring the results of a firm's policies and operations in monetary terms (Erasmus, 2008).

Ordinary Shares – Ownership of a limited company, Margaritis & Psillaki (2010).

Ownership Identity- It is the identity of the shareholders. Identity is classified into foreign and domestic. (Ignore 2011).

Preference Shares – The investor of these shares has a greater claim on the company's assets than common stockholder (Graham & Harvey, 2001).

CHAPTER ONE

1.0 Overview

This chapter presents the background to the study, statement of the problem, research objectives and hypotheses, significance of the study and the scope of the study.

1.1 Background of the Study

Firm performance is the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage (Iswatia & Anshoria, 2007). Commercial Banks are the key contributors of economic growth globally (Cavusgil, Knight, Riesenberger, Rammal & Rose, 2014). The profitability and overall financial performance of commercial banks is very vital for the smooth operation of the financial system of a country (Tektas et al, 2005). The performance of any firm not only plays the role to increase the market value of that specific firm but also leads towards the growth of the whole industry which ultimately leads towards the overall prosperity of the economy.

The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large (Naser, and Mokhtar, 2004)

Financial performance is the process of measuring the results of a firm's policies and operations in monetary terms (Erasmus, 2008). It identifies the financial strengths and weaknesses of a firm by establishing relationships between the items of the financial

position and income statement. It is a general measure of a firms overall financial health over a given period of time and can be used to compare similar firms across the same industry. Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provided a valuable tool to stakeholders to evaluate the past financial performance and the current position of a firm.

Commercial banks in Kenya often record inconsistent financial performance with some ending up under statutory receivership due to inability to meet their commitments to the stakeholders. According to Bank Supervision Annual report (2014), five commercial banks in Kenya reported losses contrary to expectation; Credit bank Ltd, Consolidated bank of Kenya Ltd, UBA Kenya Ltd, Equatorial commercial bank Ltd and Eco-bank Kenya Ltd, while others such as Dubai bank Kenya, Imperial bank Kenya and Chase bank Kenya being taken under receivership thereby calling into the question of profitability of the Kenyan commercial banks.

Financial performance of commercial banks can be measured through variety of ratios of which Return on Asset and Return on Equity are the major ones (Murthy and Sree, 2003; Alexandru, *et al* 2008). Return on Equity (ROE) is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation. It is further explained by Khrawish (2011) that ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. It represents the rate of return earned on the funds invested in the bank

by its stockholders. ROE reflects how effectively a bank management is using shareholders' funds.

Return on Asset, (ROA) is also another major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, 2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources. Therefore a firm's financial performance, in the view of the shareholder, is measured by how better off the shareholder is at the end of a period, than he or she was at the beginning and this can be determined using ratios derived from financial statements; mainly the balance sheet and income statement, or using data on stock market prices (Berger and Patti, 2014).

Financing choice involves a tradeoff between risk and return to maximize shareholder wealth (Berger, Bonime, Covitz and Hancock, 2000). The objective of an optimal financing choice for any firm is therefore to have a mix of debt, preferred stock, and common equity that will maximize shareholders wealth, since changes in financial leverage affect firm value (Farrington and Abrams, 2002). Among the possible factors that have effect on commercial banks financial performance is capital structure.

Capital structure refers to the way in which an organization is financed a combination of long term capital (ordinary shares and reserves, preference shares, debentures, bank loans, convertible loan stock) and short term liabilities such as a bank overdraft and trade creditors. A firm's capital structure is then the composition or 'structure' of its

liabilities, (Nirajini & Priya, 2013). The finance factor is the main cause of financial distress (Memba & Nyanumba, 2013). Financing decisions result in a given capital structure and suboptimal financing decisions can lead to corporate failure. A great dilemma for management and investors alike is whether there exists an optimal capital structure. The objective of all financing decisions is wealth maximization and the immediate way of measuring the quality of any financing decision is to examine the effect of such a decision on the firm's performance.

The capital structure of banking institutions has become an increasingly prominent issue in the world of finance, particularly in the wake of the 2008 banking collapse and the ensuing government bailouts and institutional restructuring efforts. During any time of financial or banking crisis, when bailout funding/aid is available, questions of capital structure become more salient. What is the best mix of debt, equity, and grant funding which will ensure solvency and self-sufficiency? The question of optimal capital structure for lending institutions is an open and weighty question. According to Bodhanwala, (2009), the financing or capital structure decision is significant managerial decision, as it influences the shareholder return.

Dare and Sola (2010) suggested that capital structure can take any of the following three alternatives: 100% equity: 0% debt, 0% equity: 100% debt or X% equity: Y% debt. On Dare and Sola (2010), Ishaya and Abduljeleel (2014) had the following take on their proposed options. Option one is that of a purely equity financed firm that ignores leverage and its benefits in financing its activities and all the distributions goes to equity providers. This however is rare in practice. Option two is that of a firm that finances its affairs wholly on debt, again unrealistic in the real world situation too because hardly will any provider of fund invest in a business without owners. In

essence, it is the equity element present in capital structure that motivates the debt providers to give their scarce resources to the business.

Option three is that of a firm combining certain proportion of both equity and debt in its capital structure. It will therefore reap the benefits of combined debt and equity while the cash flows generated are appropriated between equity and debt providers. The challenge in option three as provided is the dilution of equity ownership and therefore the likelihood of emergence of agency conflict between the equity owners and debt providers (Ishaya & Abduljeleel, 2014

Krishnan and Moyer (1997) pointed out that a list of factors relative to capital structure decisions include profitability, growth of the firm, size of the firm, debt maturity, debt ratio, tax and tangibility have. However, considerations affecting the capital structure decisions can be studied in the light of minimization of risk. A firm's capital structure must be developed with an eye towards risk because it has a direct link with the value.

The relationship between capital structure and financial performance is one that received considerable attention in the finance literature. To study the effects of capital structure or financial performance, will help us to know the potential problems in performance and capital structure. Various studies have provided link between capital structure and firm performance. For instance, Berger & di Patti (2014) concluded that higher capital structure will positively affect firm performance. However, Singh & Hamid (2015) in found that there was negative relationship between high level of capital structure and firm performance. Abor (2014) also found a positive relationship between total assets and return on equity and those profitable firms in Ghana

depended more on debt as a main financing option due to a Perceived low financial risk.

In Kenya, financial performance has been evidenced by prior studies, for instance Kaumbuthu (2011) found a negative relationship between debt to equity ratio and ROE. The findings therefore suggest that industrial firms prefer equity to debt again invalidating the pecking order theory.

Maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as minimum as possible (Ongena and Smith, 2000). Also, by changing the financial structure composition a firm can increase its value in the market. The debate over the significance of a company's choice of capital structure is esoteric but in essence, it concerns the impact on the total market value of the company (i.e. the combined value of its debt and its equity) of splitting the cash flow stream into a debt component and earn equity component. Financial experts traditionally believed that increasing a company's leverage, for instance increasing the proportion of debt in the company's financial structure, would increase value up to a point. But beyond that point, further increases in leverage would increase the company's overall cost of capital and decrease its total market value (Chowdhury and Chowdhury, 2010).

Clearly there is no consensus among researchers on what capital structure is likely to affect performance (Harris and Raviv, 2015). In addition, the study introduced ownership identity as moderator on capital structure-firm performance relationship. Usually the owners influence decisions which are made by management regarding funding of company's operations. Performance of firms can also be influenced by ownership identity (Ongore, 2011). In this study the ownership identity is classified

into foreign and domestic. The domestic vis-à-vis foreign classification is based on the nature of the existing major ownership identity in Kenya. Financial reforms in Kenya have encouraged foreign banks to enter and expand banking operations in the country. Kamau (2009) affirm that foreign banks are more efficient than local banks. She attributes this to the fact that foreign banks concentrate mainly in major towns and target corporate customers, whereas large local banks spread their activities more widely across the country. Foreign banks therefore refrain from retail banking to specialize in corporate products, while large domestic banks are less discriminatory in their business strategy. These different operational modalities affect efficiency and profitability she notes.

In relation to performance according to Javid and Iqbal (2008), the identity of ownership matters more than the concentration of ownership. This is so because ownership identity shows the behavior and interests of the owners. Ongore (2011) argues that the risk-taking behavior and investment orientation of shareholders have great influence on the decisions of managers in the day-to-day affairs of firms.

According to Central Bank of Kenya (2017) Supervision Report Out of the 43 banking institutions, 40 are privately owned while the Kenya Government had majority ownership in 3 institutions. Of the 40 privately owned banks, 25 are locally owned (the controlling shareholders are domiciled in Kenya) while 15 were foreign-owned (many having minority shareholding). The 25 locally owned institutions comprised 24 commercial banks and 1 mortgage financier. Of the 15 foreign-owned institutions, all 11 are local subsidiaries of foreign banks while 3 are branches of foreign banks. Among these, 11 are listed in the NSE while the rest are non-listed.

Foreign banks account for about 31.7% while domestic banks account for 68.3% of the banking assets as of 2017.

The banking industry is governed by the Central Bank Act and Banking Act. The banking Act sets out some policies on share ownership of a financial institution. Individuals (other than another institutions, the Government of Kenya or the Government of a foreign sovereign state, state corporation within the meaning of the State Corporations Act or a foreign company which is licensed to carry on the business of an institution in its country of incorporation) are restricted from holding directly or indirectly, or having a beneficial interest in, more than twenty-five per cent of the share capital of any institution (Banking Act, 2009).

Numerous theories have come up to explain capital of a firm, which includes the Modigliani and miller (mm) theory, the Trade-off theory, the market timing theory, the Pecking order theory and agency cost theory.

The Nairobi Securities Exchange (NSE), based in Nairobi is a public market for trading securities of listed firms in Kenya. It was established in 1954 and it is the only stock exchange. NSE is currently licensed, monitored and supervised by the Capital Markets Authority (CMA) which is the security market regulatory body in Kenya. The capital market authority has a responsibility of ensuring good corporate governance practices among listed companies and development of efficient market. Currently, the 65 listed companies in the Nairobi securities exchange are distributed among various sectors. These are; agricultural, commercial and services, telecommunication and technology, automobiles and accessories, banking, insurance, investment, manufacturing and allied, construction and allied, energy and petroleum.

1.2 Statement of the Problem

Financial performance of commercial banks gets a great deal of attention in the economic literature considering that banks serve a pivotal role in the economy and has an effect to its shareholders and economic growth of the country. Financial performance provides an avenue for the evaluation of business activities in objective monetary terms Ongeri (2014). It shows how better a shareholder is at the end of an accounting period than he was at the beginning and this can be ascertained by utilizing financial ratios derived from financial statements. The main objective of the firm is to maximize the wealth of the shareholders and therefore performance measurement helps to evaluate how richer the shareholder becomes as a result of the investment decisions over a given period (Berger & Patti, 2002).

Whereas Ongore (2011) studied financial performance of the Kenyan banks and found that the sector was quite profitable, other studies such as Oloo (2011) also noticed that despite the good overall financial performance of banks in Kenya, there are a couple of banks which were declaring losses and faced bailouts. According to Central Bank of Kenya (2014), five commercial banks in Kenya reported losses contrary to expectation, these were; Credit bank Ltd which reported Ksh. 90 million, Consolidated Bank of Kenya Ltd Ksh. 274 millions, UBA Kenya Ltd Ksh. 331 million, Equitorial Commercial Bank Ltd Ksh. 461 million and Ecobank Kenya Ltd Ksh. 499 million while others such as Dubai Bank Kenya, Imperial Bank Kenya (Central Bank of Kenya, 2015) and Chase Bank Kenya (Central Bank of Kenya, 2016) being taken under receivership. The profitability trend indicates that profitability declined during the financial years 2012 and 2013 at 4.7% (ROA) then declined in the year 2014 to 4.46%. This has called into the question of profitability of the Kenyan commercial banks.

One of the factors that have influence on the financial performance of the banks is capital structures. While there 11 banks listed in NSE, not all of them are in a financially sound position. Although at the point of listing, listed companies must meet the listing requirement of NSE, given time, the company's financial position can change for the better or for the worse. This variation of profit suggests that some specific factors play crucial roles in influencing banks' profitability. It is therefore essential to identify effect of capital structure and how they relate to bank profitability in Kenya.

To establish the impact and clear understanding on the relationship between capital structure and financial performance of a firm, research has been undertaken by various researchers on capital structure which had mixed results thereby providing a motivation for further studies in the area. Nerlove (2014), Baker (2013), Petersen and Rajan (2014), Lewellen (2015), Taub (2015) and Abor (2014) found a positive relationship between capital structure and firm performance. Mesquita and Lara (2013), Majumdar and Chhibber (2015) and Hutchinson (2015) found that capital structure had negative effect on firm performance.

Ownership is one of the variables that affect the performance of banks. Specifically, ownership identity is one of the factors explaining the performances of banks across the board; yet the level & direction of its effect remained contentious. In Kenya, financial reforms have encouraged foreign banks to enter and expand banking operations in the country. Kamau (2009) affirm that foreign banks are more efficient than local banks. Studies with regard to ownership identity theme have mainly been carried out in developed economies mostly in the United Kingdom and the United States of America with few mentioned being done in Africa and specifically in Kenya.

There are scholars who claimed that foreign firms perform better with high profit margins and low costs compared to domestic owned banks (Farazi *et al*., 2011). This is so because foreign owned firms are believed to have tested management expertise in other countries over years. Moreover, foreign banks often customize and apply their operation systems found effective at their home countries (Ongore, 2011).

However, there are scholars who argue that domestic banks perform better than foreign banks. For instance (Cadet, 2008) stated that "foreign banks are not always more efficient than domestic banks in developing countries, and even in a country with low income level. Yildirim and Philippatos in Chen and Lia (2009) also support the above view that foreign owned banks performed not better, even less than the domestic banks in relation to developing countries especially in Latin America. The study conducted in Turkey by Tufan *et al*. (2008) also found that domestic banks perform better than their foreign counter parts. Despite such debate it is still a puzzle whether the ownership identity will weaken on strengthen effectiveness of capital structure that may ultimately lead to better firm performance.

The findings generate an array of mixed reactions concerning the effects of capital structure and ownership identity on financial performance. It is in the light of the above, that this study therefore sought to find out the moderating effect of ownership identity on the relationship between capital structure and financial performance of commercial banks listed at Nairobi Securities Exchange.

1.3 Objectives of the Study

The study general and specific objectives that formed the basis for carrying out the study were as indicated below.

1.3.1 General objective

The main objective of this study was to examine the moderating effect of ownership identity on the relationship between capital structure and financial performance of banks listed at NSE.

1.3.2 Specific objectives

1. To determine the effect of debt on financial performance of banks listed at NSE.
2. To examine the effect of equity on financial performance of banks listed at NSE.
3. To investigate the moderating role of ownership identity on relationship between:
   a. Debt and financial performance of banks listed at NSE.
   b. Equity and financial performance of banks listed at NSE.

1.4 Hypothesis

H_{01} Debt has no significant effect on financial performance of banks listed at NSE.

H_{02} Equity has no significant effect on financial performance of banks listed at NSE.

H_{O3a} Ownership identity does not moderate the relationship between debt and financial performance of banks listed at NSE.

H_{O3b} Ownership identity does not moderate the relationship between equity and financial performance of banks listed at NSE.

1.5 Significance of the Study

The study was beneficial to various stakeholders.

To the bank's shareholders and management, this study enlightens them on the effect of capital structure on their firm's value thus help them make informed financing decisions about debt and equity capital that would enhance their firm's financial performance. It also provides information to bank financial managers that help them establish a financing policy on how the bank should finance their assets to maximize its value.

To the government and other regulators and policy makers, the findings of this study is useful in regard to advising and formulation of policies and guidelines that govern the banks and also enhance their performance which in turn improve the performance of the economy.

To the investors and other financiers, the study sought to enlighten them on how capital structure affects financial performance of banks thus help them make informed investment and lending decisions that ensures they get a return on their investment.

To the researchers and students, the findings of this study are of value to those with an interest in this field of study since it provides literature to be used for reference for future research and studies. It also suggests on the areas for further research and scholars benefit from the study since its recommendations triggers more research and debate.

1.6 Scope of the Study

The study focused on commercial banks in Kenya listed at Nairobi security exchange. The study concentrated on the objectives which involved determining the moderating

effect of ownership identity on relationship between debt, equity and financial performance of banks listed at NSE.A survey of all 11 listed commercial banks was conducted between the periods 2003 to 2018. The sixteen-year study period was suitable for the study since it covered the periods during which the banks were declaring losses and faced bailouts. The study used explanatory research design and secondary data obtained from the audited financial reports of the banks.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter entails the concepts of financial performance, capital structure and ownership identity, the theoretical review, empirical review, research gap and the conceptual framework.

2.1 Concept of Financial Performance

Financial performance is a subjective measure of how well a firm can use its' assets from its' primary business to generate revenues. Performance is to a large extent expressed in terms of profits and losses and this is observed by how a business performs over a given period of time (Stanwick, 2002). According to Erasmus (2008) financial performance is considered as the best possible way of as to how a firm generates its' revenues through utilization of its assets. Metcalf & Titard (1976) mentioned that performance in financial perspective involves the act of carrying out financial activity so as to realize the financial objectives within a given time period. It is not only used to determine a given period financial status but also the results of its operations and policies through monetary terms. These measures are important since they can be used for comparison between firms which are on the same or different industry.

Financial performance is firm's ability to generate new resources, from its daily procedures, for a certain time period. Financial performance may also refer to the firm's ability to make good use of their resources in an effective and efficient manner for achievement of the firm's objectives and goals (Warsame, 2016). According to Kagoyire and Shukla (2016) financial performance is the firm's ability to efficiently

operate, be more profitable, to grow and survive for a long period of time. All organizations strive to utilize it resources effectively to achieve a high performance level especially in financial terms. Thus, financial performance is the outcome of any of many different activities undertaken by an organization (Fujo & Ali, 2016).

Measuring is considered to be a simple task despite its specific complications with many researchers preferring to use market measures and others opting for accounting measures (Waddock, 1997). Accounting as a measure usually use historical information of firms' performance which may be subject to managerial manipulation and as such it becomes difficult to compare firms' performance using accounting information especially if different firms use different accounting procedures. When using accounting measures, different sectors of economy features or characteristics and risk associated with such sectors need to be taken into account (McGuire, 1988).

Ratio is used to summarize large quantities of financial data which can be used as a benchmark to make both qualitative and quantitative judgment about the firm performance. Erasmus (2013) noted that financial performance measures like profitability and liquidity among others provided a valuable tool to stakeholders to evaluate the past financial performance and the current position of a firm. Profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. Commercial banks could also have additional social and economic goals. However, this study focuses on the ultimate goal of all businesses, profitability.

Financial performance of commercial banks can be measured through variety of ratios of which Return on Asset and Return on Equity are the major ones (Murthy and Sree, 2003; Alexandru *et al*., 2008). Return on Asset, (ROA) is a major ratio that indicates

the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, 2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources. Return on Equity (ROE) is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment.

2.2 Concept of Capital Structure

Capital structure refers to the way in which an organization is financed a combination of long term capital (ordinary shares and reserves, preference shares, debentures, bank loans and convertible loan stock) and short term liabilities such as a bank overdraft and trade creditors. A firm's capital structure is then the composition or 'structure' of its liabilities, (Nirajini & Priya, 2013). The firm needs to make the investments in order to remain in business and also display some growth. The Capital structure of a firm is very important since it related to the ability of the firm to meet the needs of its stakeholders.

The importance of the capital structure of a firm lies in the power inherent in it. It affects real decisions to a company on production, employment and investment (Haris and Raviv, 1991). Capital structure, to a great extent is composed of the firm's debt and equity (Peavler 2016). Management and owners keeps on making decisions on proportions of debt versus equity as they try get answers to the following questions;

so as to get higher returns, should they go for more debts? To reduce risk of high gearing, should the firm use more equity finance?

Capital structure is one of the most important financial decisions for any business and firm. This decision is imperative because the organization needs to enhance return to different organizations and also have an effect on the value of the organization, which is evident in the firm's financial performance. Saad, (2010) points out that financial manager face difficulties in precisely determining an optimal capital structure for their firms. Optimal capital structure means a minimum weighted average cost of capital and thus maximize the value of organization. These points out a correlation between Capital structure and financial performance that is important to this study. The following capital structures were used in the study, debt and equity financing.

Debt is created by borrowing from the external financing sources like financial banks or issuing bonds. For businesses and corporations' debt financing often involves the selling of notes, bonds, mortgages or other debt instruments (Rajan and Zingales, 2014). The individuals and financial institutions which provide the debt financing become creditors. Since debt financing involves borrowed funds, debt financing must be repaid, typically in installments and with interest Akintoye (2014).

Any money owed to a company, or other organization is debt. An organization acquires debt when it borrows money. In business and government, debt is often issued in the form of bonds, which are tradable securities entitling the bearer to repayment at the appropriate time. Debt finance is a fixed return finance as the cost (interest) is fixed on the par value (face value of debt). The financier does not control the operations of the firm but instead, he is paid a fixed annual return as compensation for the use of his funds. On the other hand, the borrower (firm) is legally obligated to

repay the principal amount plus the accrued interest regardless of whether the firm makes the profit or not. The inability to meet such financial commitments can lead to loss of the collateralized asset, the collapse of the business or even bankruptcy (Bichsel and Blum, 2005).

Debt has both the advantages and disadvantages in the growth of companies and expansion of the economy. Debt finance results to benefits such as tax shield and the diminution of free cash flow problems by enhancing managerial behavior while the expenses of debt financing include agency expenses and bankruptcy cost which results from the conflicts between shareholders and debt holders (Fama and French, 2002). Managers therefore, should try to balance these costs and benefits of debt when making debt capital decisions in order to improve performance (Kraus and Litzenberger, 1973).The maturity period of long term debt financing is normally beyond 5 years Ebaid, (2014). Short term debt financing is referred to as an operating loan or short term loan because scheduled repayment takes place in less than one year Barbosa & Louri, (2014).

Equity is money acquired from the owners themselves or from other investors. According to Kisgen (2006), equity capital is the mode that enables equity holders to exert influence and monitor managerial decisions continuously through the board of directors. It is also likely to result in greater value to equity holders and thereby increasing firm performance. Booth (2002) argues that the firm that uses equity finance is able to make its performance better since there is direct control and because all the equity holders are the residual claimants they have to ensure that resources are allocated efficiently to be able to maximize shareholders wealth. Booth's arguments

have been supported by Boateng and Jones (2003) who found that use of equity capital is positively related to the financial performance of firms.

Share capital refers to funds raised by a firm through issuance of shares in exchange for cash or other consideration. Share capital consists of ordinary shares and preferred stock (Uremadu and Efobi, 2012).

Ordinary share capital is raised from the public from the sale of ordinary shares to the shareholders. This finance is available to limited companies. It is a permanent finance as the owner/shareholder cannot recall this money except under liquidation. It is thus a base on which other finances are raised. Ordinary share capital carries a return that is variable (ordinary dividends). These shares carry voting rights and can influence the company's decision making process at the Annual General Meetings, Kochhar, (1997). The ordinary shares carry the highest risk in the company (high securities) because of uncertainty of return. Ordinary shares cannot ensure refund and have residual claims. These shares carry voting rights and can influence the company's decision making process at the Annual General Meetings, (Kochhar, 1997).

While ordinary shareholders face greater financial risk than creditors and preferred shareholders of a corporation, they can also reap greater rewards. If a company makes large profits, the creditors and preferred shareholders do not receive more than the fixed amounts to which they are entitled, while the ordinary shareholders divide the large profits among themselves. The same occurs when companies, such as start-ups, are sold to larger corporations. Ordinary shareholders usually profit the most.

Preference shares is preference because it is preferred to ordinary share capital that is it is paid dividends first and it is paid asset proceeds first. Unlike ordinary share capital, it has a fixed return. It carries no voting rights. It is an unsecured finance and

it increases the company's gearing ratio. The preference share capital are classified as follows; Redeemable preferential shares which are bought back by issuing company after minimum redemption period but before expiring of maximum redemption period after which they become creditors. Irredeemable Preference Shares which are perpetual preference shares as they will not be redeemed in the company's lifetime unless it is under liquidation, (Margaritis, 2010).

When a firm acquires too much capital through equity issues, it can be taken as an indication to the market that it has no enough reserves or cash flows, and this can result in the undervaluation of the firm's shares (Narayanan, 2008). When investments are financed with external equity, the share prices of firms sometimes fall. This can suggest that, it is better to build up reserves so that a higher proportion of capital needs can be from internal sources. A firm should consider a combination of these different sources of financing. The main point is that firms need to discover an optimal mixture of debt and equity that will eventually increase the overall value of the firm. Therefore, decisions concerning capital structure can impact on the accomplishment and future prosperity of a firm.

2.3 Ownership Identity

According to Ignore (2011), the concept of ownership can be defined along two lines of thought: ownership concentration and ownership identity. He defines ownership concentration as the distribution of shares owned by majority shareholders in the firm. Ownership identity is mainly categorized into foreign versus domestic investors. In relation to performance according to Javid and Iqbal (2008), the identity of ownership matters more than the concentration of ownership. This is so because ownership identity shows the behavior and interests of the owners. Ongore (2011) argues that

the risk-taking behavior and investment orientation of shareholders have great influence on the decisions of managers in the day-to-day affairs of firms.

2.4 Theoretical Review

The study was guided by Modigliani and miller (mm) theory, trade off-theory, market timing theory and pecking order theory which were used to ground the concepts and nexus existing between study variables.

2.4.1 Modigliani and Miller (mm) theory (1958, 1963)

This theory was developed by Franco Modigliani and Merton Miller on capital structure in the 1950s. Arguably it formed the basis for modern thinking on capital structure. Modigliani – Miller proposition I under certain assumptions include no taxes, homogenous expectations, perfect capital markets and no transaction costs states that the capital structure does not affect a firm's value. This is because there is no tax shield benefit. It contradicts the presumption in this study which is the existence of an effect of financial structure on financial performance of a firm.

Modigliani- Miller proposition II with taxes showed that the value of a firm can be increased by the tax shield benefits associated with interest deduction. This is because the tax shield brings down the cost of debt, as more debt is used. The theory states that a firm is in a better position if it uses debt rather than using internal capital as it will benefit from debt tax shields. The theory argues that the more debt is, the more a firm's value increases hence giving the firm to achieve financial sustainability. This theory supports more usage of debt than other internal capital. Attempts to relax assumptions particularly the idea of no bankruptcy cost and no taxation led to the tradeoff theory.

In regards to the assumption that firm's value is not affected by leverage in a perfect market, this study intended to interrogate the same since the Kenyan market is not perfect. Also, in relation to the existence of corporate tax and the tax deductibility of interest payment, this study also sought to interrogate if a firm will shield more of its profits from tax by increasing its leverage through replacing equity with debt in its capital structure. If so, how will this affect its financial performance? Attempts to relax assumptions of Modigliani and Miller theory particularly the idea of no bankruptcy cost and no taxation led to the tradeoff theory.

2.4.2 Trade-Off Theory

This theory was proposed by Myers (1984). The theory holds that, there exists an optimal capital structure for every firm, which can be determined by balancing the costs and benefits of equity. As a result, a firm decides on how much debt capital and how much equity capital to include in their capital structure by balancing on the costs and benefits of each source. Debt capital results to benefits such as tax shied though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses results from divergence of interest among the different firm stakeholders and because information asymmetry (Jensen & Meckling, 1976).

Thus, including cost of agency into the trade-off theory signifies that a corporation ascertains its optimal financial structure by balancing the benefit of debt (the tax advantage of debt) against expenses of excessive debt (financial distress) and the resultant equity agency expenses against debt agency costs. The theory further assert that, as firm increases debt in their capital structure, the marginal cost associated with debt increases while the marginal benefits associated with debt decreases until an optimal point is reached. Beyond that point, the marginal costs of debt exceed the

marginal benefits resulting to reduced firm value. In this regard, the firm should set an optimal financial structure in order to enhance its performance.

According to Myers (1984), firms with more tangible assets should have high debt ratios while firms with more intangible assets should depend more on equity capital because they are subject to lose of value in case of liquidation. Under this theory, firms should evaluate the various costs and benefits of each debt level and determine an optimal debt structure that balances the incremental costs and incremental benefits (debt tax shields against costs of bankruptcy). This further explains why firms are partly financed by equity and also partly financed by debt in their capital structure

The trade-off theory of capital structure discusses the various corporate finance choices that a corporation experiences. The theory is an important one while studying the financial economics concepts. In general, the theory described that firms finance their operation through debt and equities. An alternative to the trade-off theory is the pecking order theory. Trade-off theory underlines taxes, while the pecking order theory emphasizes asymmetric information. Trade off theory is an extension of the MM theory developed by Miller. In relation to this study, this theory suggests that there is a relationship between capital structure and financial performance

2.4.3 Market Timing Theory

The theory was developed by Baker & Wurgler (2002). The theory views firms' capital structure as an outcome of the frequent attempts to time equity market, whereby companies issue equity shares to create finance when the market prices are high when compared to their book value or historic market prizes and then buys back these shares when market prizes are low for firm. According to this theory, specified optimal capital structure does not exist and the various attempts by financial managers

to time equity market over the time accumulate into a capital structure outcome. Consequently, changes in share prices affect company capital structures.

Therefore, capital structure comes because of the market timing of when to issue debt or equity depending on the performance of the market (Boudry, Kallberg& Liu 2010). The theory further assert that financial managers should consider which source of finance is cheapest at any time through evaluation of the equity costs relative to the cost of other means of raising funds. As a result, financing structure of the firm is because of the different visit made to the market and the prevailing market conditions (Graham & Harvey, 2001).

The theory assert that timing of equity market has an effects on financing structure and describes low leverage firms as those firms which seek funds when the market prizes are high while the high leverage firms as those which seek funds when the market prizes are low.

The theory was developed with the intentions of enabling financial managers to take advantage of the short-term fluctuation in the cost of equity finance relative to other forms of capital. This theory supports the idea that companies choose equity finance when the relative equity cost is low, and choose debt finance when the relative equity cost is high. This change in share price affects capital structure and explains why firms at the same moment in time, firms have distinct proportion of debt and equity in their financing structure. Equity should be issued when relative cost is low while debt should be chosen when equity cost is high (Kwast & Rose, 1982). Firms therefore chooses the form of financing which at the moment in time seem to be more valued by the financial markets by paying attention to the market conditions. The financing

structure adopted by the firm at any given time can be described as an outcome of the repeated trials to time equity market (Baker &Wurgler, 2002).

2.4.4 Pecking Order Theory

The pecking order theory was developed by Myers & Majluf (1984). According to this theory, there is no predefined optimal capital structure but instead asserts that, firms displays different preference for utilizing internal funds or retained earnings over external capital. It is the one of the most significant theories of company leverage and goes against the firm's idea of having distinctive combination of equity and debt finance, which minimizes the corporation costs of funds. It suggests that the firm should follow a well-specified order of priority with respect to financing sources to minimize its information asymmetry costs, first choosing retained earnings, then debt and finally raising equity as a last option. It advocates for retained earnings to be used first in funding long-term projects and when they are exhausted or not available, then debt is issued; and when it is insufficient or not available, equity is issued. The theory argues that, as firms becomes more profitable, the lesser they seeks external funds since they would have enough internal funds to support their investment projects (Myers, 1984).

The explanation of the pecking order stems from the existence of the information asymmetry where managers are assumed to know more about their company risk, prospects and project value than external investors including capital markets. According to Myers & Majluf (1984), investors places low value on the company stock because of the inability of managers to convey information on the company prospects including the new investment opportunities identified. This in return makes managers who are believed to be at the core of company information to finance their

project using readily available retained earnings. If the retained earnings are insufficient, managers will choose debt capital in the preference to issuing equity shares since they are undervalued in the capital markets. The asymmetric information effect therefore favors use of debt over equity and shows management confidence that the newly identified investment opportunity is profitable and the current share price is underpriced (Myers & Majluf, 1984).

This theory is important since it shows how firms define their capital structure by choosing to maintain their earnings in favor of debt so as to finance its operations. This theory help determine whether profitable firm use less debt because of high earnings to fund themselves as compared to those with less earnings. In relation to effect of capital on performance in financial perspective, the theory will help to determine whether distinct preference is given to internal finance over external finance. If so, how does this affect the firm's financial performance? In relation to this study, this theory suggests that there is a negative relationship between capital structure and financial performance. Should I find evidence that is consistent with the pecking order theory then my results should highlight a negative relation between capital structure and bank profitability

2.4.5 Agency Cost Theory

These theory by Jensen and Meckling (1976) argue that an optimal capital structure is attainable by reducing the costs resulting from the conflicts between the managers, owners and debt holders. In other words, the optimal financial structure results from a compromise between various funding options (own funds or loans) that allow the reconciliation of conflicts of interests between the capital suppliers (shareholders and

Creditors) and managers (Grigore & Stefan-Duicu, 2013). Indeed, Jensen and Meckling (1976) argued that debt can be used to control the manager's behavior by reducing the free cash flows within the firm by ensuring prompt payment of interest payments. This minimizes the cash at the disposal of managers likely to be misappropriated through personal interests or still waste the cash in organizational inefficiencies at the expense of the firm's objectives. Key among the objectives is maximization of shareholders wealth by maximizing profitability, a measure of financial performance.

According to Grigore and Stefan-Duicu (2013), indebtedness attracts agency costs of three types, that is, control and justification costs, high risk investments remuneration costs demanded by the creditors and bankruptcy costs. Firms thus have interest to indebt until the point at which the increase of its value owed to the financed investments will be equal to the marginal costs generated by the indebtedness. Therefore, the optimal level of indebtedness is the one that allows the minimization of overall agency costs, consistent with Jensen and Meckling (1976).

In addition, conflicts can be reduced by firms with high growth opportunities relying on lower leverage and using a greater amount of long-term debt than firms in more mature industries or issue convertible debt or debt with warrants than plain debt since convertible debt will have lower agency costs than plain debt (Jensen & Meckling, 1976). The high growth opportunities imply likelihood of high profitability and hence financial performance to hedge against high long term debt cost (Jensen & Meckling, 1976). Fast growing firms may also imply possibilities of high levels of fixed assets investment. Such firms obtain debt easily as they can pledge the fixed assets as

collateral and thereby reduce agency costs which are usually associated with the use of debt (Karadeniz *et al.,* 2009).

Indebtedness allows shareholders and managers to adhere to same objective of maximizing financial performance and hence shareholders wealth (Luigi & Sorin, 2009). For managers, the indebtedness has the power to incite them to perform since the more the company is indebted, the higher its bankruptcy risk and the higher the risk of losing their jobs, remunerations and other advantages. This is considered to be a sufficient threat in coercing them to down their inefficient management styles and in return yield maximum cash-flow to reward the debt (Grigore & Stefan-Duicu, 2013). For the shareholders, debt has a leverage effect over the financial return due to interest tax shield coupled with the advantage of non-dilution of the share capital (Zhang & Li, 2008).

2.5 Empirical Review

The study reviews existing literature on financial structure in relation to financial performance, as well as the moderating role of ownership identity.

2.5.1 Debt and Financial Performance

To study the effect of capital structure on profitability of the industrial companies listed on Amman Stock Exchange during a six-year period (2004-2009), Shubita and Alsawalhah (2012) found a significantly negative relation between debt and profitability. This suggests that profitable firms depend more on equity than debt. The study sample consisted of 39 randomly selected companies with correlations and multiple regression analysis as techniques of analysis. The findings contravene Myres and Majluf (1984) pecking order hypothesis that debt is preferred to equity.

To examine capital structure and profitability of the Nigerian listed firms from the agency cost theory perspective Ishaya and Abduljeleel (2014) found that debt is negatively related with profitability but equity is directly related with profitability. A sample of 70 out of population of 245 firms listed at the Nigerian securities Exchange was used for the period 2000 – 2009.Panel data for the firms were generated and analyzed using fixed-effects, random-effects and Hausman Chi Square estimations. The findings are consistent with Shubita and Alsawalhal (2012) survey and also provide evidence against the agency cost theory.

Abdul (2012) conducted a study to determine the relationship between capital structure decisions and the performance of firms in Pakistan. The study concluded that financial leverage has a significant negative relationship with firm performance as measured by ROA, GM, and Tobin's Q. The relationship between financial leverage and firm performance as measured by the return on equity (ROE) was negative but not statistically significant.

To determine the impact of choice of capital structure on the performance of firms in Egypt, Ebaid (2009) carried out a study of listed firms in Egypt and found that capital structure has little or no impact on a firm's performance. ROE, ROA, and gross profit margin were used as proxies for performance while short-term debt to asset ratio, long-term debt to asset ratio, and total debt to total assets were used as proxies for capital structure.

To analyze on how firms choose their capital structure under pecking order and trade-off theories particularly when they have leverage target Zurigat (2009) concluded that leverage is positively related to profitability. They used data from 114 non-financial Jordanian firms (of which 62 are industrial firms and the remaining are services firms)

for the period 1997-2005. Panel data analysis was employed. While the study disagrees with the pecking order theory hypothesis, it supported both the Agency cost and MM capital structure relevance as both provides that profitability increase with debt capacity. The study did not discuss in depth the proxy for profitability.

Hang HTT (2015). Investigated the influence of financial structure on corporate performance by using data from 150 Vietnamese listed manufacturing firms from 2008 to 2012. Comparing the results of random effects model and fixed effects model, the more appropriate model was applied in discussing some empirical results. The study found that the financial structure has significant and positive relationship with corporate performance in associated with debt to assets and short-term debt to assets. In contrast, corporate performance is insignificantly influenced by long-term debt to assets.

To analyze the impact of capital structure on profitability of listed companies in India, Chisti *et al.* (2013) found that capital structure have a statistically significant impact on the profitability of firms. This invalidates the MM (1958) theory of capital irrelevance. The study used secondary data of ten automobile companies for the 2007-2012 and used ratios analysis. GP margin, NP margin ROCE, return on investments were used as profit proxies while debt to equity, debt to assets and interest cover were used as capital structure proxies.

To determine the relationship between capital structure and financial performance for industrial and allied sectors in the NSE during the period 2004 to 2008, Kaumbuthu (2011) found a negative relationship between debt to equity ratio and ROE. The findings therefore suggest that industrial firms prefer equity to debt again invalidating the pecking order theory. The proxies for capital structure and financial performance

were debt to equity ratio and ROE respectively with regression as the technique of analysis.

Maina and Kondongo (2013) investigated the effect of debt-equity ratio performance of firms listed at the Nairobi Securities exchange. A census of all firms listed at the Nairobi Security Exchange from year 2002-2011 was the sample. The study found a significant negative relationship between capital structure (DE) and all measures of performance. The results collaborated MM theory that indeed capital structure is relevant in determining the performance of a firm. The study further found that that firms listed at NSE used more short-term debts than long term.

2.5.2 Equity and financial performance

To examine capital structure and profitability of the Nigerian listed firms from the agency cost theory perspective Ishaya and Abduljeleel (2014) found that debt is negatively related with profitability but equity is directly related with profitability. A sample of 70 out of population of 245 firms listed at the Nigerian securities Exchange was used for the period 2000 – 2009. Panel data for the firms were generated and analysed using fixed-effects, random-effects and Hausman Chi Square estimations. The findings are consistent with Shubita and Alsawalhal (2012) survey and also provide evidence against the agency cost theory.

Nyamsogoro (2010) examined on the financial sustainability in rural microfinance institutions in Tanzania. The study noted that how capital of micro financial institution is structured determines the performance of the institution. However, it was noted that different sources of capital do not improve performance. The findings also revealed that equity financing is relatively cheaper option and as such improves the performance of micro finance institutions.

To determine the relationship between capital structure and financial performance for industrial and allied sectors in the NSE during the period 2004 to 2008, Kaumbuthu (2011) found a negative relationship between debt to equity ratio and ROE. The findings therefore suggest that industrial firms prefer equity to debt again invalidating the pecking order theory. The proxies for capital structure and financial performance were debt to equity ratio and ROE respectively with regression as the technique of analysis.

Githire and Muturi (2015).Appraised the effect of financial structure on the performance of firms listed at the Nairobi Securities Exchange. The population of interest was the firms listed at the Nairobi Securities Exchange and a census of all firms listed at the Nairobi Securities Exchange from year 2008-2013 was the sample. The study adopted an explanatory non-experimental research. Secondary data were obtained from the published annual reports and financial statements of the listed companies at the NSE covering the years 2008 to 2013. Multiple regression analysis method was used to analyze and test the hypotheses. The findings showed that equity and long term debt have a positive and significant effect on financial performance, while short term debt has a negative and significant effect on financial performance.

Siro (2013) examined the effect of capital structure on financial performance of firms. Longitudinal research design was employed. On focus were the 61 listed firm sat NSE. The study relied on secondary data which was obtained from NSE hand books and company financial statements. It was noted that there was an inverse relationship between capital structure and financial performance of the surveyed firms. Particularly, the study ascertained that higher debt ratio, that is lower equity ratio resulted to less return on equity. The study underlined the need of more equity capital

employment in the firm rather than borrowing since the cost of debt financing may be higher.

Ronoh C (2015) examined the effects of financial structure on financial performance of listed commercial Banks in Kenya, a case study of Kenya Commercial Bank Limited. Annual financial reports of 230 branches of Kenya Commercial Bank limited formed the target population. The financial and income statements panel data covering five-year period from 2009 to 2013 were applied. The multiple regression models used considered performance as the dependent variable and was measured in terms of ROA and ROE. The results from the regression analysis indicated that Deposits, debt and equity was negative and significantly related to financial performance of listed commercial banks in Kenya as measured by return on assets. The regression analysis results indicated that the relationship between Retained Earnings ratio was positive although insignificantly related to financial performance as measured by return on assets. It was therefore concluded that capital structure of listed commercial banks in Kenya is significant and affects financial performance of commercial banks negatively.

Rao and Moyer (1992) examined the common stock reaction of companies calling nonconvertible preferred stock. They found out that there was no reaction when a company makes a partial repurchase of preferred stock outstanding. However, there was a positive announcement effect when preferred stock was fully removed from the capital structure. They attributed this to a signaling effect. The full removal of preferred stock signaled positive earnings prospects, as the company is expected to replace preferred stock with debt in order to utilize interest tax shields, which subsequently should increase firm value.

Modigliani and Miller (1966) analyzed the effect of preferred stock on firm value in electrical utilities companies, and found out that preferred stock is irrelevant to firm value. As dividends are not tax-deductible, the lower cost of preferred stock should be completely offset by the higher return required by common stockholders for assuming a higher degree of financial risk. If this holds, common stockholders should be indifferent to financing with preferred stock. Moreover, the literature suggested that the lack of tax deductibility of preferred dividends have significant impact on which types of companies that issue preferred stock, and under what circumstances.

Heinkel and Zechner (1990) examined the impact of preferred stock on a company's investment decisions. Their model showed that high debt ratios create incentives for underinvestment in accordance with (Myers, 1977), while high equity ratios created incentives for overinvestment, i.e. a free cash flow problem in accordance with (Jensen and Meckling, 1976). Another factor included in Heinkel and Zechner's model was the dividend flexibility of the preferred stock, which Emanuel (1983) states is a key feature from the common stockholders' point of view. Heinkel and Zechner (1990) showed that preferred stock enhances a company's debt capacity, and hence resolve the underinvestment problem, if debt is replaced with preferred stock in the capital structure.

Kanini (2016) studied on the effects of capital structure on financial performance of commercial banks in Kenya. Data was obtained from 2005 to 2014 (ten-year period). Data analysis was done using SPSS software version 21. The model equation showed that growth in debt would affect financial performance positively leading to increase in profitability. The study also showed similar effect on retained earnings and preference shares on commercial banks' financial performance. The study indicated

that debt and retained earnings are more significant in predicting financial performance than preference shares which have insignificant factor at 95% confidence level. On the other hand, ordinary shares show different effect, that a unit increase would affect financial performance negatively by decreasing performance at a rate of - 1%.

2.5.3 Moderating effect of ownership identity

There are scholars who claimed that foreign firms perform better with high profit margins and low costs compared to domestic owned banks (Farazi et al., 2011). This is so because foreign owned firms are believed to have tested management expertise in other countries over years. Moreover, foreign banks often customize and apply their operation systems found effective at their home countries (Ongore, 2011). It is also assumed that banks crossing boundaries are often those big and successful ones.

According to Claessens et al., (1998) domestic banks' performance is superior compared to their foreign counterparts in developed countries. According to the same scholars the opposite is true in developing countries. Micco *et al*. in Wen (2010) also support the above argument in that in developing countries the performances of foreign banks is better compared with the other types of ownership in developing countries.

However, Detragiache (2006) presented a different view about the foreign bank performance in relation to financial sector development, financial deepening, and credit creation in developing countries. He found that the performances of foreign banks compared to their domestic owned banks are inferior in developing countries.

For instance in countries such as Thailand, Middle East and North Africa region, it was found that foreign banks performance is better than domestic counterparts (Azam

and Siddiqui, 2012; Chantapong, 2005; Farazi et al. 2011). The study conducted in Pakistan by Azam and Siddiqui (2012) concluded that "...foreign banks are more profitable than all domestic banks regardless of their ownership structure by applying regression analysis." They further suggest that "...it is better for a multinational bank to establish a subsidiary/branch rather than acquiring an “existing player” in the host country."

Moreover, Chantapong (2005) by studying domestic and foreign bank performance in Thailand concluded that foreign banks are more profitable than the average domestic banks profitability. It is also supported by Okuda and Rungsomboon (2004) that foreign owned banks in Thailand are found to be efficient compared to their domestic counterparts due to modernized business activities supported by technology, reduced costs associated with fee-based businesses and improved their operational efficiency. These indicate that in the area studied above foreign banks were found to be more profitable than their domestic counterparts. The major reason behind these assertions is that foreign banks were believed to be strong & efficient.

However, there are scholars who argue that domestic banks perform better then foreign banks. For instance (Cadet, 2008) stated that "... foreign banks are not always more efficient than domestic banks in developing countries, and even in a country with low income level." Yildirim and Philippatos in Chen and Lia (2009) also support the above view that foreign owned banks performed not better, even less than the domestic banks in relation to developing countries especially in Latin America.

The study conducted in Turkey by Tufan et al. (2008) also found that domestic banks perform better than their foreign counterparts. There are also other scholars who argue that the performance of domestic and foreign banks varies from region to region.

Claessens *et al.* (1998), for example, stated that foreign banks perform better in developing countries compared to when they are in developed countries. Thus, they conclude that domestic banks perform better in developed countries than when they are in developing countries. They further assert that an increase in the share of foreign banks leads to a lower profitability of domestic banks in developing countries.

2.5.5 Control variables

Other than capital structure and ownership identity, there are other factors they may influence financial performance, and thus the need to control for the variables. This study controlled for bank size and bank age.

2.5.5.1 Bank size

The study controlled for bank size and proposed a positive association between bank size and financial performance. This is because according to (Ramaswamy, 2001; Jermias, 2008; Frank and Goyal, 2004) big firms enjoy a number of benefits accruing from the economies of scale and they also have better resources than smaller firms.

Frank and Goyal, 2003, Ebaid, 2009, suggest that the firm's size may influence its performance; larger firm may have more capacity and capabilities. Therefore this study controls the differences in banks by including the size variable to control for effects of firm size on dependent variable.

Shergill and Sarkaria (1999) found a positive relation between the firm size and the performance in Indian firms. As larger firms have increased diversification, achieves economies of scale, have access to advanced technology and easy for them to obtain funds at lower costs.

(Gleason et al., 2000 and Zeitun and Tian, 2007) examining the impact of firm size on firm performance found a significant positive relationship between the two while (Tzelepis and Skuras, 2004, Durand and Coeuderoy, 2001 and Lauterbach and Vaninsky, 1999) found positive but insignificant impact of firm size on the firm's performance.

Hall and Weiss (1967) Their empirical analysis of Fortune 500 Industrial Corporations for the years 1956–1962 aimed at testing the relationship between profit rates and other appropriate variables such as firm size, concentration, leverage and growth. Results of the study showed that firm size (proxied by the log of firm assets) exhibit a positive relationship with profitability [represented by Return on Equity (ROE) and Return on Assets (ROA)].

Hagedoorn and Cloodt (2003), for example, tested the relationship between firm size and profitability for a sample of 1,478 German manufacturing firms in 31 industries. Results revealed weak size-profitability correlations that were unstable over the study period. These results suggested that firm size is not the major determinant of profitability and that profitability would depend largely on how well firms cope with size and exploit the opportunities associated with it.

Whittington (1980) even found a negative association between firm size and profitability for U.K. based listed manufacturing companies covering the time period from 1960 to 1974.

Salim (2012) studied the relationship between bank size and financial performance of commercial banks in Kenya. The study specifically aimed at determining the relationship between bank size factors, namely, total deposits, total loans, and total assets, and financial performance, and went further to investigate the relationship

between branch network size and financial performance. The main findings of the study established strong correlations between all the studied factors of bank size.

2.5.5.2 Bank age

The time that the bank has been in operation have an implication on its financial performance. Ghafoorifard *et al*. (2014) analyzed the relationship between firm size, age and financial performance in 96 listed companies listed on Tehran Stock Exchange for the period from 2008 to 2011 and documented a positive relationship between a firm's age and its Tobin's Q ratio.

A positive relationship between firm age and profitability was also documented by Kipesha (2013) for microfinance institutions in Tanzania and by Osunsan *et al*. (2015) for SMEs in Uganda.

Dogan (2013) focused on companies listed on the Istanbul Stock Exchange, found a negative relation between firm age and return on assets running a multiple regression on data from 200 listed companies between the years 2008-2011.

Coad, Segarra and Teruel (2007) using a sample of Spanish firms from 1998 to 2006 found that firm performance improves with the age of the firm and that older firms have a lower level of productivity and profitability.

Malenya and Muturi (2013) identified company size and age to have positive effect on firm's financial performance as large firms enjoy economies of scale as it experiences undergoes a "learning effect" and discovers new and better ways of doing things.

2.6 Summary of Research Gap

From the above studies, it was evident that the results of the studies conducted were conflicting. The disagreement in different empirical research of capital structure and financial performance and ownership identity and financial performance justifies the need for further studies, it was for this reasons that this study was conducted. This research study sought to examine the moderating effect of ownership identity on relationship between capital structure and financial performance of commercial banks listed at Nairobi Securities Exchange.

2.7 Conceptual Framework

The study's dependent variable is financial performance while the independent variables are debt and equity. The moderating variable is ownership identity and controls are size and age as shown in the conceptual framework below.

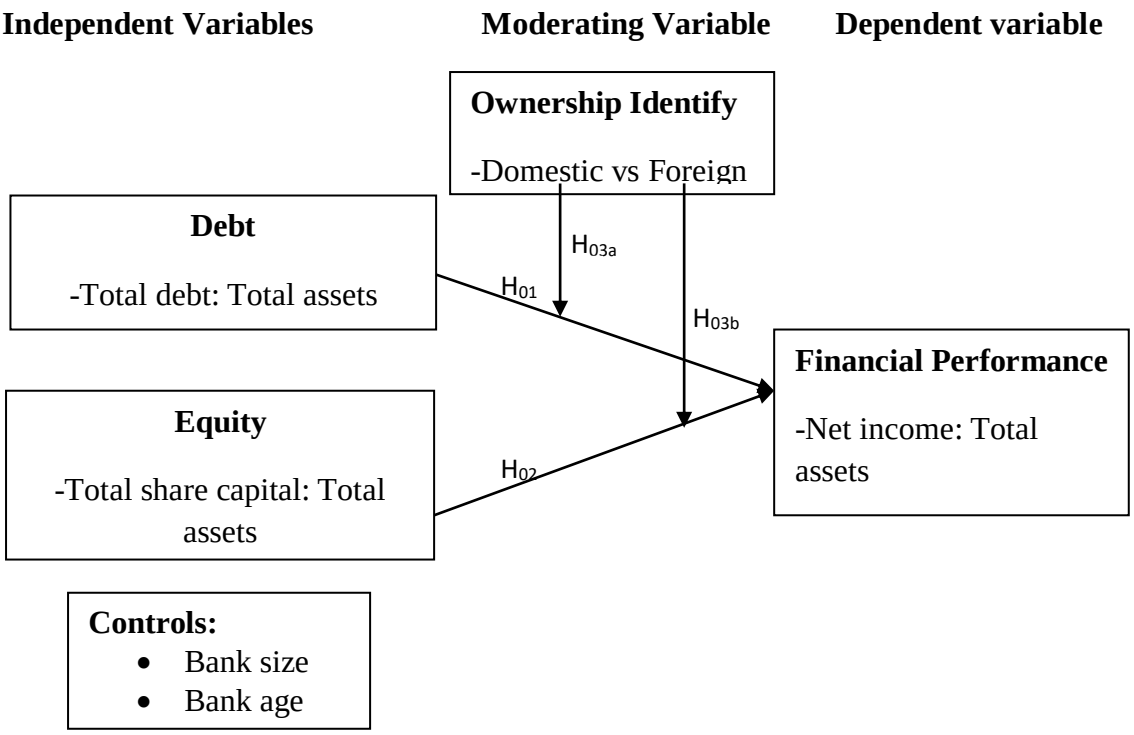

Fig 2.5: Conceptual Framework

Source: Author, (2021)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Research method is a systematic procedure, technique, or mode of inquiry for attaining a certain objective, (Cooper& Schindler, 2003). This chapter presents methodological issues including research design, study area, target population, data collection, measurement of variables, data analysis, diagnostic test and ethical consideration.

3.1 Research Design

According to Ghauri and Gronhaug (2005), research design involves establishing a plan or a specified framework for collecting data for the study and its subsequent analysis, which contains the research approach and the priorities of the great interest to the researcher. The study adopted an explanatory research design, employed secondary quantitative data. This is a design that shows the effect of a variable(s) towards another variable(s) and attempts to explain the causes of such changes (Kerlinger & Lee, 2000). The panel data analysis was conducted to test the research hypotheses, due to the advantage that it has, it helps to study the behavior of each bank over time and across space (Baltagi, 2005; Gujarati, 2003).The data was obtained from Nairobi Securities Exchange Handbooks and published books of accounts of the commercial banks listed in the Nairobi Securities Exchange for a period of sixteen years from 2003 to 2018.

3.2 Study Area

Study area was commercial banks listed at Nairobi Securities Exchange. Commercial banks play a major role in Kenya. They contribute to economic growth of the country by making funds available for investors to borrow as well as financial deepening in

the country. Commercial banks therefore have a key role in the financial sector and to the whole economy (Kiruri, 2013).

3.3 Target Population

Flick (2009) defines target population as the entire group of people, events or things that the researcher intends to investigate. The population could further be discussed as the categories of entities that meet certain criteria that though with varying properties draw down to having similar components of the study. The target population for the study was commercial banks listed at Nairobi Securities Exchange which had been consistent for the period 2003 to 2018, there are 11 listed banks trading at the NSE. The target population was chosen since the data required by the researcher was easily accessible.

A survey technique was used in the study since it captured all the 11 banks that had been consistently operating at the NSE for the past 16 years from 2003 to 2018. The choice of sixteen years was so that the number of observations were not be too small since there are only 11 banks listed at NSE, It also covers years which banks were making losses and others being put under receivership. The data was obtained from the data banks reports of Nairobi Securities Exchange.

3.4 Data Collection

The study used secondary data which was obtained from the annual financial statements reports of listed banks at Nairobi Securities Exchange Handbooks and published books of accounts. The financial reports were used to extract the information concerning profitability and total asset, debt, equity, age and size. To avoid error during data collection from the annual reports, entries were double checked by the researcher.

3.5 Measurement of Variables

The study investigated the moderating effect of ownership identity on the relationship between capital structure and financial performance. The variables were classified into predictors, moderator, controls and dependent variable. They were measured as indicated below:

3.5.1 Dependent Variable

The study's dependent variable was financial performance which was measured by Return on Assets, ROA = Net income/Total Assets (Majumdar and Chhibber (1999), Abor (2005), Saedi and Mahmoodi, (2009) Khrawish (2011) and Ebaid (2009).

3.5.2 Predictor Variables

Debt It was measured by total debt to total assets (Abor, 2005; Abor, 2007).

Equity It was measured by share capital to total assets (Mwangi, 2016)

3.5.3 Moderating Variable

Ownership identity it was measured by dummy variable with 1 if its domestic bank and 0 if it's foreign bank (Okoth Ongore and Gemechu Berhanu, 2013).

3.5.4 Control variable

Bank's Size was measured in line with previous studies, log of total assets (Athanasoglou, Brissimis & Delis, 2005; Atemnkeng and Joseph, 2006; Dabla Norris & Floerkemeier, 2007; Guavera, Maudos & Perez, 2008; Mirzae, 2012.

Bank's Age the study used the same measurements as previous studies, difference between observation year and establishment year. (Abdur Rouf, 2015, Loderer and Waelchli, 2010).

Table 3.1: Summary of variables

Variables	Measurements
Dependent	
Financial performance	(ROA) Net income/Total assets (Majumdar and Chhibber (1999), Abor (2005).
Independent variable	
Debt	Total debt/Total assets (Abor, 2005; Abor, 2007).
Equity	Share capital/Total assets (Mwangi, 2016).
Ownership identity	Dummy variable equal to one if bank is domestic and zero otherwise 1=Domestic and 0=Foreign. (Okoth, 2013).
Bank Size	Log of total assets (Athanasoglou, Brissimis & Delis, 2005; Atemnkeng and Joseph, 2006).
Bank Age	Difference between observation year and establishment year (Abdur Rouf, 2015, Loderer and Waelchli, 2010).

3.6 Data and Analysis

Data collected from the audited financial reports was keyed in, coded, cleaned and analyzed quantitatively. Data analysis was conducted using STATA version 13 software. The panel data was analyzed using both descriptive and inferential statistics. Descriptive statistical techniques specifically mean, standard deviation, minimum and maximum were used. Inferential statistics that is multiple regression analysis and correlation analysis were used to predict and explain the nature and significance of relationships between the independent and dependent variables.

3.7 Model specification

Regression analysis was conducted to test the research hypotheses. Hierarchical regression analysis was conducted to check for control effects, direct effects and interactions as indicated below.

$FP_{it} = \beta_0+\beta_1 SIZE_{it} +\beta_2 AGE_{it}+\varepsilon_{it}$……..model 1

$FP_{it} = \beta_0+\beta_1 SIZE_{it} +\beta_2 AGE_{it} +\beta_3 D_{it}+\beta_4 E_{it} +\beta_5 M_{it}+\varepsilon_{it}$……..model 2

$FP_{it}=\beta_0+\beta_1 SIZE_{it}+\beta_2 AGE_{it}+\beta_3 D_{it}+\beta_4 E_{it}+\beta_5 M_{it}+\beta_6 D_{it}*M_{it}+\mathcal{E}_{it}$……model 3

$FP_{it}=\beta_0+\beta_1 SIZE_{it}+\beta_2 AGE_{it}+\beta_3 D_{it}+\beta_4 E_{it}+\beta_5 M_{it}+\beta_6 D_{it}*M_{it}+\beta_7 E_{it}*M_{it}+\mathcal{E}_{it}$…..Model 4

Where:

FP_{it}=Financial Performance of Bank expressed by ROA

β0 = constant

$\beta 1 \ldots \beta 7$ = regression coefficients

$SIZE$ = Bank size

AGE= Bank age

D_{it} = Debt

E_{it}= Equity

M_{it}= Ownership Identity

ε_{it}= Error term

i = Company

t =Year

The research hypotheses was tested at a significance level of 0.05 where a resulting p-value of less than 0.05 rejected the null hypothesis meaning the relationships were statistically significant and a p-value greater than 0.05 means the relationships between the study variables were insignificant.

3.8 Diagnostic Tests

The following diagnostic tests were carried out to ensure that the data suited the basic model assumptions.

3.8.1 Normality

To check for normality Jargue-bera was used. Null hypothesis for Jargue-bera states that data is normally distributed. For normal distribution JB statistics is expected to be

zero (Guajarati, 2007). The hypothesis was tested at a 0.05 significance level where p value greater than 0.05 indicated that data was normally distributed. This test was done to ascertain whether the variables and by extension the regression residuals were normally distributed.

3.8.2 Multicollinearity

Variance inflation factor (VIF) method was used to test for multicollinearity (Montgomery, Peck & Vining, 2015). This is a situation where there is a high degree of association between independent variables (Kothari, 2004). It is a problem that distorts the regression coefficients, making them unstable, difficult to interpret and hence invalid significance tests (Cooper & Schindler, 2006). Threshold of 10 was applied, According to Allison (2015), the general rule of thumb is that VIFs exceeding 10 are signs of presence of multicollinearity requiring correction.

3.8.3 Heteroscedasticity

Heteroscedasticity was tested using Breusch-Pagan / Cook-Weisberg test. The null hypothesis for this statistical test was the presence of homoscedasticity. If a p-value less than the 0.05 threshold was the result then the null hypothesis of homoscedasticity was rejected and the alternative accepted, confirming heteroscedasticity assumption. Heteroscedasticity is lack of constant error variance (Gujarati, 2003). This is a problem that makes the standard errors biased leading to bias or invalid test statistics and confidence intervals (Wooldridge, 2002).

3.8.4 Auto correlation

Durbin-Watson test was used to check for the presence of autocorrelation between variables. According to Gujarati (2014), Durbin-Watson statistic ranges from 0 to 4. A value near 0 indicates presence of positive autocorrelation while a value close to 4

indicates presence of negative autocorrelation. A value ranging from 1.5 to 2.5 indicates that there is no presence of autocorrelation between the variables. Auto correlation is a situation where the error terms for different time periods are correlated (Gujarati, 2003). This is a problem that affects the efficiency of the estimators such that the standard errors are distorted affecting the test statistic hence invalid significance test and conclusions (Gujarati, 2003).

3.8.5 Stationary

Stationarity is a situation where the mean, variance and autocorrelation of data structure do not change over time (Gujarati, 2003). Stationarity test is necessary to ensure that regression results are not spurious such that there is a high coefficient of determination between variables (due to non stationarity) even if there is no cause and effect relationship (Wooldridge, 2012).The study conducted a Harris-Tzavalis test to check for unit root of the data where the null hypothesis (Ho) states that all panels have a unit root. Stationarity of a time series is crucial for the application of various econometric techniques, and most empirical work based on time series data assumes that the underlying time series is stationary (Gujarati, 2003).

3.8.6 Hausman test

To cater for the unobserved variables in the model and which may or may not have effect on the predictors included in the model, Hausman specification test at 5% level of significance was conducted to determine the suitability of application of random or fixed effect model (Green, 2008). The null hypothesis for this Chi square test was that the random effect model is preferred to fixed effect model and was rejected if the p-value is less than 5% to imply that fixed model is preferred (Green, 2008).

3.9 Ethical Consideration

The data collected from NSE was solely used for the purposes of this study and was not forwarded to any other party. All Information sources were cited in the document and later referenced. Consent was also sought through a research permit sought from the National Commission for Science, Technology and Innovation (NACOSTI).

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents the data analysis and the interpretations of the findings as set out in the general objective of the study and the research methodology. The areas covered in the chapter include: Firms selection, descriptive statistics, diagnostic tests, regression assumption tests, correlation analysis, fixed and random effects, and a regression analysis for both direct and moderating effects and finally the empirical discussion of the findings.

4.1 Firms Selection

The study focused on the banks listed at the Nairobi Stock Exchange (NSE), where secondary data were used, specifically the audited financial reports obtained from the Capital Markets Authority (CMA). A panel data analysis was conducted on the 11 listed banks. The panel data collected was spread over a 16-year period, from 2003 to 2018 resulting to a total of 176 bank-year observations.

4.2 Descriptive Statistics

4.2.1 Descriptive statistics of variables

Table 4.1 presents descriptive statistics of the control variables, moderator, independent variable and the dependent variable. The total number of observations in the study was 176. According to Brown (2006), the acceptable values of skewness fall between − 3 and + 3, and kurtosis is appropriate from a range of − 10 to + 10. The Study findings indicate a skewness that ranges between -0.1040 and 0.7153, and kurtosis ranging between 1.0635 and 4.6321. This confirms that the data is well distributed for the observations. The results show that bank age had a mean of 61.4091 years and Standard deviation was 27.9962 years. This implies that majority

of the banks at NSE are old. The youngest bank was 19 years and the oldest was 122 years.

The results on the table 4.1 further shows that bank size had mean of 18.8079 with standard deviation of 1.59245. The minimum bank size was 14.977 and the maximum bank size was 22.6671. This means that banks which operate at NSE are heterogeneously dispersed from the mean in terms of sizes. This suggest that there was need to control for the variable so as the data do not become biased.

In addition, the table also shows that ownership identity had a mean of 0.5625 and a standard deviation of 0.49749. This implies that majority of the banks who trade at NSE were domestic 56.25% while those banks owned by foreigners were 43.75% of total banks which were studied.

On debt, the results on table 4.1 show that it had a mean of 0.85409 and a standard deviation of 0.03420, the minimum debt was0.71895 and the maximum debt was0.93929. This implies that majority of the banks use much more debt than equity in their capital structure. According to Shubita and Alsawalhah (2012) use of debt finance has a negative impact on performance. This negative association is brought about by agency cost; the more the debt used the higher the agency cost Ishaya and Abduljeleel (2014). This means that profitable banks relay on equity to finance their operations.

Equity had a mean of 0.02406 and standard deviation of 0.021033 as shown in table 4.1. The minimum is 0.00154 and the maximum is 0.08977 Equity was measured as a ration of equity to total assets. This result therefore implies that Total assets were much higher than the equity. Compared to debt finance, banks used more of debt than equity in their capital structure.

In terms of financial performance, the results show that it had a mean of 0.03977 or 3.977% and standard deviation of 0.01437 as shown in the table 4.1 above. The minimum and maximum were 0.00158 or 0.158% and 0.07415 or 7.415% respectively. This results implies that the general performance of the banks was not good since the average ROA which is 3.977% was below recommended limit of 5%. This could be as result of excess debt in their capital structure since debts have negative effect on the performance, Shubita and Alsawalhah (2012). However few banks had ROA above 5% which could be attributed to little debt on their capital structure.

The table below (4.1) shows descriptive statistics of the study variables.

Table 4. 1: Summary of variable

Stats	N	Mean	Min	Max	Sd	Skewness	Kurtosis
Bank age	176	61.4091	19	122	27.9962	0.7153	2.1993
Bank size	176	18.8079	14.977	22.6671	1.59245	0.1150	2.7032
Debt	176	0.85409	0.71895	0.93929	0.03420	-0.4479	4.6321
Equity	176	0.02406	0.00154	0.08977	0.02103	1.3198	4.0354
Ownership identity	176	0.5625	0	1	0.49749	-0.2520	1.0635
Financial performance	176	0.03977	0.00158	0.07415	0.01437	-0.1040	2.6130

4.2.2 Descriptive statistics by year

The study also undertook variance on a yearly basis as indicated in the table below. The study also sought to check whether the variables vary yearly. From table 4.2, it was evident that the banks differed in terms of age with the oldest 68.90 years and the youngest 53.90 years. For bank size, it was evident from the findings in the table 4.2 that it had the highest mean of 19.80782 in 2018 with the lowest year 2004 (mean = 17.52616).

According to table 4.2 financial performance was highly evidenced in the year 2014 (mean = 0.0461) with lowest in the year 2005 (mean = 0.034). This shows that

financial performance increased in the year 2014than other years. Debt financing was highly evidenced in the year 2005 (mean = 0.881) with lowest in the year 2016 (mean = 0.838). This means that on average, the banks in the year 2005 had more debt compared to other years. According to table 4.2 evidently, equity was highly evidenced in the year 2011 (mean = 0.029) with lowest being observed in the year 2016 (mean = 0.018). This shows that equity financing increased in the 2011 than other years. Finally, Table 4.2 illustrates that ownership identity had mean (0.563) on average. This means that there were many domestic banks compared to foreign banks listed at Nairobi Securities Exchange.

Table 4.2: Summary of variance by year

Year		Bank age	Bank size	Debt	Equity	Ownership identity	Financial performance
2003	Mean	53.90909	17.61996	0.873046	0.025319	0.545455	0.034963
	Std dev	28.87717	1.945152	0.049924	0.024473	0.522233	0.016538
2004	Mean	54.90909	17.52616	0.872299	0.025502	0.636364	0.034943
	Std dev	28.87717	1.301422	0.039606	0.018687	0.504525	0.016377
2005	Mean	55.90909	17.6944	0.880717	0.026794	0.636364	0.034478
	Std dev	28.87717	1.284092	0.018923	0.022885	0.504525	0.014532
2006	Mean	56.90909	17.87785	0.878191	0.024536	0.636364	0.036938
	Std dev	28.87717	1.320109	0.01764	0.021289	0.504525	0.012794
2007	Mean	57.90909	18.1567	0.858705	0.024928	0.636364	0.037464
	Std dev	28.87717	1.409972	0.04947	0.021432	0.504525	0.009089
2008	Mean	58.90909	18.49146	0.84456	0.02371	0.545455	0.037191
	Std dev	28.87717	1.347853	0.051543	0.021861	0.522233	0.013684
2009	Mean	59.90909	18.65877	0.84665	0.024494	0.545455	0.036205
	Std dev	28.87717	1.353041	0.038598	0.023331	0.522233	0.013332
2010	Mean	60.90909	18.69911	0.844037	0.024292	0.545455	0.042672
	Std dev	28.87717	1.400582	0.021278	0.02172	0.522233	0.012416
2011	Mean	61.90909	19.07548	0.858188	0.029668	0.545455	0.043438
	Std dev	28.87717	1.416929	0.018798	0.027736	0.522233	0.013211
2012	Mean	62.90909	19.23822	0.848075	0.027541	0.636364	0.04317
	Std dev	28.87717	1.445491	0.018881	0.024221	0.504525	0.015612
2013	Mean	63.90909	19.35094	0.841585	0.022965	0.636364	0.045232
	Std dev	28.87717	1.418756	0.01726	0.022468	0.504525	0.013864
2014	Mean	64.90909	19.54389	0.84452	0.023608	0.545455	0.046141
	Std dev	28.87717	1.383235	0.031229	0.019977	0.522233	0.015218
2015	Mean	65.90909	19.67214	0.847063	0.024211	0.454546	0.044399
	Std dev	28.87717	1.387188	0.025555	0.017771	0.522233	0.013063
2016	Mean	66.90909	19.7263	0.837766	0.018393	0.454546	0.04033
	Std dev	28.87717	1.409137	0.025261	0.019304	0.522233	0.015557
2017	Mean	67.90909	19.80782	0.84135	0.019495	0.454546	0.037073
	Std dev	28.87717	1.433746	0.032187	0.018415	0.522233	0.014766
2018	Mean	68.90909	19.78782	0.848701	0.019426	0.545455	0.041698
	Std dev	28.87717	1.589387	0.031975	0.020751	0.522233	0.018825
Total	Mean	61.40909	18.80794	0.854091	0.024055	0.5625	0.039771
	Std dev	27.99618	1.592449	0.034203	0.021033	0.497494	0.01437

Researcher (2021)

4.3 Diagnostic test

4.3.1 Unit root test

Stationarity is a phenomenon where the mean, variance and autocorrelation of data structure do not change over time (Gujarati, 2003). Due to limited variance the series tend to drift around the mean. The series can be stochastic (randomly determined) or

it can be deterministic in nature (displaying a trend). On the other hand, non-stationary series are those series whose mean and variance change over time and has a simple correlation coefficient between the X variable and its lagged variable which is influenced by other factors other than the length of the lag between the two Studenmund, (2011).

Table 4.3: Unit root test

	Statistic	p-value
Bank age	-7.6584	0.0000
Bank size	-4.5632	0.0000
Debt	-2.7038	0.0034
Equity	-1.8376	0.0331
Ownership identity	-1.8647	0.0311
Financial performance	-1.899	0.0229

Researcher (2021)

Table 4.4: Unit root test hypothesis

Test	**hypothesis**
Harris-Tzavalis unit-root test	Ho: All panels contain unit root Ha: All panels are stationary

Table 4.3 above shows results for unit root test using Harris-Tzavalis test while table 4.4 shows both null and alternative hypothesis for the test. All the *P* values as shown in table 4.3 are less than 0.05 and therefore we reject the null hypothesis and accept the alternating, meaning there is no unit root in the data and therefore, all panels are stationary. This therefore, implies that the variance in the data do not depend on time, hence regression model can yield meaningful results (Gujarati, 2012)

4.4 Regression Assumptions Results

It is always important to test for regression assumptions before undertaking regression analysis. This is to ensure that the underlying assumptions of regression hold, failure to which will rend the results inaccurate and therefore cannot be relied on (Marczyk,

DeMatteo & Festinger, 2005). The study therefore sought to for the normality, multicollinearity, homoscedasticity and autocorrelation assumptions.

4.4.1 Normality assumption

To check for normality assumption, Jarque-Bera normality test were conducted and normality tested a 0.05 significance level.

4.4.2 Jarque-Bera normality test

Under the above test, if the Chi (2) value is lower than the significant level of 0.05, it mean that the null hypothesis is rejected and therefore the data is not normally distributed. On the other hand if the Chi (2) value is greater than the *P* value (Chi (2)>0.05), then the null hypothesis will not be rejected, which means that the data is normally distributed. The hypotheses used in this test are:

Ho: normality

Ha; normality does not exist

Table 4.5: Jarque-Bera normality test

Jarque-Bera normality test: 6.364 Chi(2) .0510
Jarque-Bera test for Ho: normality:

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From table 4.5 above the *P* value (Jarque-Bera normality test: 6.364 Chi(2) = .0510) is greater than 0.05, meaning that the null hypothesis cannot be rejected. This therefore means that the data was normally distributed.

4.4.3 Multicollinearity assumption

Multicollinearity is a situation where there is a high degree of association between independent variables (Kothari, 2004). It is a problem that distorts the regression coefficients, making them unstable, difficult to interpret and hence invalid

significance tests (Cooper & Schindler, 2006). The outputs of multicollinearity are expanded standard errors of evaluations of Betas, which reduces reliability quality and therefore the results are misleading (Creswell, 2014). Multicollinearity test was carried out to check whether there is a high degree of association between the variable variables.

The Variance inflation factor (VIF) measured the correlation level between the predictor variables, and estimated inflated variance due to linear dependence with other explanatory variable (Creswell, 2014). Under this method, threshold of 10 is applied. According to Allison (2015), the general rule of thumb is that VIFs exceeding 10 are signs of presence of multicollinearity which affects the study (Newbert, 2008).

Table 4.6: VIF test for multicollinearity

Variable	VIF	1/VIF
Bank Age	1.19	0.841566
Bank Size	1.08	0.923875
Debt	1.07	0.936786
Equity	1.10	0.912875
Ownership identity	1.11	0.898711
Mean VIF	1.11	

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Table 4.6 above shows the results of VIF test. According to the table 4.6 above, the VIF is ranging from 1.07 to 1.19, and therefore all the variable inflation factors where less than 10, implying that model was free from multicollinearity issues. It is suggested that a tolerance value less than 0.1 should be investigated further. If a low tolerance value is accompanied by large standard errors and non-significance, multicollinearity may be an issue. In this case, all tolerance levels has indicated in Table 4.6 are significantly greater than 0.1.

4.4.4 Heteroscedasticity assumption

Heteroscedasticity test involve checking whether the data have constant variance which is necessary while conducting regression analysis. Presence of heteroscedasticity in the data makes the predictors to be inefficient. This inefficiency make the usual hypotheses testing results inaccurate and not to be relied upon (Gujarati, 2003). To check for heteroscedasticity assumption, the study used Breusch-Pagan / Cook-Weisberg test at 0.05 significance level.

4.4.5 Breusch-Pagan / Cook-Weisberg test for homoscedasticity

Under the Breusch-Pagan / Cook-Weisberg test, the null hypothesis (Ho) assumes homoscedasticity, while alternative hypothesis (Ha) assumes heteroscedasticity.

Table 4.7: Breusch-Pagan / Cook-Weisberg test for homoscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: my residuals
chi2(1) = 1.46
Prob > chi2 = 0.2265

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Table 4.7 shows the results for Breusch-Pagan / Cook-Weisberg test for homoscedasticity. The P value as shown in Table 4.7 is 0.2265 which is higher than 0.05. This means that the null hypothesis is not rejected and therefore we conclude that there is no heteroscedasticity problem and instead the error variance is constant (homoscedasticity).

4.4.6 Autocorrelation assumption

Autocorrelation is a situation where the error terms for different time periods are correlated (Gujarati, 2003). This is a problem that affects the efficiency of the estimators such that the standard errors are distorted affecting the test statistic hence invalid significance test and conclusions (Gujarati, 2003). Modified Bhargava et al

Durbin-Watson was applied to check for the presence of autocorrelation between variables. According to Gujarati (2014), A rule of thumb on the autocorrelation tests is that a value between 0and 4 indicates that there is no autocorrelation in the data.

Table 4.8: Autocorrelation test

Modified Bhargava et al. Durbin-Watson = .97127285 Baltagi-Wu LBI = 1.1862705

Researcher (2021)

The results of autocorrelation test as shown by Table 4.8 has Durbin-Watson value of (0.97127285)and Baltagi-Wu (1.1862705) which falls between no autocorrelation threshold of between 0 and 4**.**

4.5 Correlation Results

Correlation analysis is conducted to establish the level at which two factors converge or diverge together depending on the case so as to establish the significance of the relationship. A positive value of the correlation coefficient shows that the two variables move together in the same trend, and when there is a negative value, it shows that the variables move in opposite direction or trend (Vanderstoep & Johnston, 2009). This means that correlation analysis depicts to a given degree, the aspect of how one factor influences another although correlations do not imply a cause-effect relationship. The study thus carried out correlation analysis of the independent factors and the dependent factor and the findings were summarized and presented in Table 4.9.

Table 4.9: Correlation results

	FP	Debt	Equity	Own	Age	Size
FP	1					
Debt	-0.2705	1				
Equity	0.1052	0.1620	1			
Own	-0.4902	-0.0015	0.1087	1		
Age	-0.3718	0.0668	0.2535	0.3017	1	
Size	0.5948	-0.1962	-0.0592	0.1397	-0.1849	1

FP: Financial performance, Own: Ownership identity

Researcher (2021)

The results presented in Table 4.9 indicate that there is no multicollinearity problem because all the coefficients were below 0.8. According to the results in table 4.9, bank size exhibited the highest association in relation to financial performance while equity had the lowest association in relation to financial performance.

From the findings in Table 4.9, Debt has a negative (r = -0.2705) relationship with bank performance. This implies that the increase in debt will decrease the financial performance of the bank. These results are in line Shubita and Alsawalhah (2012) who found that the use of debt finance has a negative impact on performance. This means that profitable firms relay on equity to finance their operations.

The results also show that Equity has a positive association (r=0.1052) with bank performance. This means that an increase in equity increases financial performance. This results are in line with the findings by Ishaya and Abduljeleel (2014), Nyamsogoro (2010), Kaumbuthu (2011), Githire and Muturi (2015) and Siro (2013) who found that equity has positive association with firm performance, that is when

equity increases, firm performance also increase. The correlation results further shows that owner's identity have a negative association (r=-0.4902) with bank performance.

In addition firm age showed a negative association (r=-0.3718) with firm performance. This implies that as the age of the firm increase, firm performance decreases. From the findings, it can be argued that older banks may not perform better than younger banks which are still growing. These findings are in line with the study by Dogan (2013) who found a negative relationship between firm age and return on assets (ROA). Coad, Segarra and Teruel (2007) also found that older firms have low level of productivity.

Bank size showed a positive relationship (r=0.5948) with firm performance. It means therefore that an increase in bank's size leads to increase in financial performance. This is because big firms enjoy a number of benefits accruing from the economies of scale and they also have better resources than smaller banks (Ramaswamy, 2001; Jermias, 2008; Frank and Goyal, 2004). It's also argued that large firms have more capacity and capabilities Frank and Goyal, 2003, Ebaid, 2009.

4.6 Random and Fixed effects

To cater for the unobserved variables in the model and which may or may not have effect on the predictors included in the model, Hausman specification test at 5% level of significance was conducted to determine the suitability of application of random or fixed effect model (Green, 2007). In order to make the decision, the study conducted regression analysis using both random and fixed effect. Hausman test was then carried out to inform the decision between random and fixed effect. The rule of thumb in this case is to opt for the random effect if the error term is correlated since inference may not be correct, (Torres Reyna, 2007). Hausman null hypothesis (Ho) states that

random effect is appropriate while its alternative hypothesis (Ha) states that fixed effect is the appropriate model for undertaking regression analysis. To make decision on whether regression is to be carried out using random effect or fixed effect, hausman test were carried out after a regression was conducted using random and fixed effect. The results is shown on the table below.

Table 4.10: Hausman test

	---- Coefficients ----			
	(b)	**(B)**	**(b-B)**	**sqrt(diag(V_b-V_B))**
Variables	**fe**	**re**	**Difference**	**S.E.**
Debt	-.0674489	-.0683897	.0009409	.0057212
Equity	.0971629	.1311209	-.033958	.0120223
Own	-.0145146	-.0129407	-.0015739	.0014189
Bank age	-.0264213	-.0079431	-.0184782	.0123301
Bank Size	.0048267	.0037001	.0011266	.0012624

b = consistent under Ho and Ha; obtained from xtreg

B =inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 11.50

Prob>chi2 = 0.0422

Researcher (2021)

Table 4.10 above show that the chi-square value is 11.50 and its *p-value* is 0.0422 which means that they were significant. Therefore the null hypothesis (Ho) stating that random effect is appropriate was rejected and we accept the alternative hypothesis (Ha) stating that fixed effect is appropriate. From the above test therefore, we conclude that subsequent regression analysis will be conducted using fixed effect model to test the hypothesis of the research.

4.7 Regression Results

The main objective of this study was to examine the moderating effect of ownership identity on the relationship between capital structure and financial performance of banks listed at Nairobi Stock Exchange. Hierarchical regression model with four models was applied to check for direct effect and moderating effect of the independent and moderating variables respectively on financial performance of commercial banks listed at NSE. The first model regressed the dependent variable and the controls variables, second model regressed the dependent variable, control variables, independent variables and the moderator while the models three and four regressed the dependent variable, control variables, independent variables and moderator by gradually introducing interactions one and two to test hypothesis. All the models adopted fixed effect model as suggested by the results of Hausman test. The research hypotheses were tested at 0.05 significance level thus p- values less than 0.05 ($p<0.05$) lead to rejection of the null hypothesis.

4.7.1 Control Effect

A Panel regression analysis was carried out to test the hypotheses for control variables on financial performance of commercial banks listed at NSE. Table 4.11 shows that the overall first regression model was significant (*F-value* = 22.31, $P< 0.05$). The P value was less than 0.05 indicating that the overall model was fit. The control variable bank age had negative and significant effect on firm performance (β= -0.04567, P< 0.05). The p value is less than 0.05 implying that bank age has significant effect on financial performance. The negative beta coefficient value implies that a unit increase in bank's age, decreases financial performance by 4.567%. This therefore justifies the need for its control in the study.

Furthermore the t- value (t = -3.27) is within the rejection region, justifying the significance of age on firm performance. It can therefore be concluded that as banks get older their financial performance decline. This could be as a result of debt increase debt in their capital structure increased operations as a result of many branches and products, therefore bringing out complexities hence decrease in their performance. In addition, firms life cycle justify the fact that they perform better during early stages and experience continued growth until maturity stage where their performance begin to decline. These results were consistent with the findings of Dogan (2013) who found a negative relation between firm age and return on assets.

The first model also indicate that bank size has a positive and significant effect on bank performance (β= 0.008545, P< 0.05). The *P-value* is less than 0.05 implying that the effect of bank size on firm performance was significant. This therefore justifies the need for controlling the variable. In addition the *t-Value* of 5.75 is within the rejection region, further justifies the significance of bank size on bank performance. The results further shows that bank size had a beta value of 0.008545 implying that for a unit increase in bank size, financial performance will increase by 0.008545 units. From the above results, it can be argued that large banks perform better than small banks due to economies of scale as its experiences undergoes a "learning effect" and discovers new and better ways of doing things. Furthermore, large banks access equity finance more easily than small banks which are critical in financial performance Malenya and Muturi (2013). Large bank also has an ability to employ experienced managers and staff, who can improve their performance. The results for this study are consistent with the findings of Ghafoorifard *et al*. (2014), Kipesha (2013), Osunsan *et al*. (2015), Segarra and Teruel (2007) and Malenya and Muturi

(2013) whose studies found a positive relationship between firm size and financial performance. The first hierarchical model is rewritten as;

FP_{it} = 0.051731+0.008545$SIZE_{it}$ -0.04567AGE_{it} +ε_{it}…… model 1

Table 4.11: Financial performance and Control Variables

R-sq: within = 0.2149				Obs per group: min =16		
between = 0.5750				avg =16.0		
overall = 0.3486				max =16		
				F(2,163) = 22.31		
corr(u_i, Xb) = -0.9253				Prob > F = 0.0000		
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank Age	-0.04567	0.0139598	-3.27	0.001	-0.07323	-0.0181
Bank Size	0.008545	0.001486	5.75	0.000	0.005611	0.011479
_cons	0.051731	0.0318562	1.62	0.106	-0.01117	0.114635
sigma_u	0.02049					
sigma_e	0.009226					
Rho	0.831432	(fraction	of variance due	To	u_i)	

4.7.2 Direct Effects

The hypothesis for the direct effect was tested in model two of the hierarchical regression analysis and the results were presented in Table 4.12. From these results, it's clear that the overall model was significant (*P<0.05,* F-*Value* =24.13). The R-square for the model was 0.4299 indicating that the predictor variables accounts for up to 42.99% of the variations in financial performance.

H_{01} ***Debt has no significant effect on financial performance of banks listed at NSE.***

From the results in Table 4.12, it shows that Debt financing has negative and significant effect on bank performance (β = -0.06745, *P<0.05*). Having a P-value of less than 0.05 means that its null hypothesis (Ho) stating that Debt has no significant effect on financial performance of banks listed at NSE, is rejected and therefore concluded that debt finance has a significant effect on bank performance. The *t-value*

(t = -3.12) is within the rejection region, further justifying the significant effect of debt finance on financial performance of commercial banks. A negative coefficient on the other hand implies that a unit increase in debt finance decreases firm performance by 0.06745 units. This is because debt finance is expensive to acquire and service due to high interest paid to the debt unlike equity finance where the owners are paid dividends which depend on profitability of the bank.

The findings are in line with previous studies of Shubita and Alsawalhah (2012), Ishaya and Abduljeleel (2014), Abdul (2012), Chisti *et al.* (2013) and Kaumbuthu (2011) whose studies found out that financial leverage has a significant negative relationship with firm performance. The findings of this study contravene Myres and Majluf (1984) pecking order hypothesis that debt is preferred to equity.

H_{02} ***Equity has no significant effect on financial performance of banks listed at NSE.***

Furthermore, the results shown on Table 4.12 indicate that equity financing has positive and significant effect on performance of commercial banks in Kenya (β = 0.097163, $P<0.05$). The p-value is less than 0.05 implying that the effect of equity finance on firm performance is significant. This is also justified by the t-value (t =2.59) which is within the rejection region, showing the significant effect of equity finance on financial performance. Therefore, the null hypothesis stating that Equity has no significant effect on financial performance of banks listed at NSE, is rejected and it's concluded that equity finance has significant effect on financial performance of commercial banks listed at NSE. The positive coefficient implies that for a given unit increase in equity finance it increases the financial performance by 0.097163 units.

This therefore, implies that equity financing is relatively cheaper option and as such improves financial performance of banks. Thus, for banks to exhibit high financial performance, use of equity finance must be priority for them. This is because the cost of acquiring and servicing debt finance is higher than equity finance. The results were consistent with previous studies including Ishaya and Abduljeleel (2014), Nyamsogoro (2010), Githire and Muturi (2015), Siro (2013), Ronoh C (2015) and Kanini (2016) whose studies found that equity have a positive and significant effect on financial performance. The second hierarchical model is rewritten as;

FP_{it}=0.112327+0.0048$SIZE_{it}$-0.0264AGE_{it}-0.0675D_{it}+0.0972E_{it}- -0.0145M_{it}+ε_{it}……..……...…….model 2

Table 4.42: Direct Effects

R-sq: within = 0.4299 between = 0.6737 overall = 0.5043			Obs per group: min =16 avg = 16.0 max= 16			
corr(u_i, Xb) = -0.7894			F(5,160) = 24.13 Prob > F = 0.0000			
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank age	-0.02642	0.0126668	-2.09	0.039	-0.05144	-0.00141
Bank size	0.004827	0.0013997	3.45	0.001	0.002062	0.007591
Debt	-0.06745	0.0215932	-3.12	0.002	-0.11009	-0.0248
Equity	0.097163	0.0374989	2.59	0.010	0.023106	0.17122
Ownership identity	-0.01451	0.0023785	-6.10	0.000	-0.01921	-0.00982
_cons	0.112327	0.0374051	3.00	0.003	0.038456	0.186198
sigma_u	0.011402					
sigma_e	0.007936					
Rho	0.673653	(fraction	of variance due	to	u_i)	

4.8 Moderating Effect

The study further sought to check moderating effect of ownership identity on the relationship between capital structure and financial performance of commercial banks. According to Baron & Kenny (1986), a moderator is a variable which affect direction or strength of a relationship between independent and dependent variable. Tix and Baron (2004) show that there are three types of moderation;

The first one is the enhancing interaction where both the predictor and moderator affect the outcome variable in the same direction and together have stronger and addictive effect. The second type is called the buffering interaction where the moderator variable weakens the effect of the predictor on the outcome. The last one is the antagonistic interaction where the predictor and the moderator have the same effect on the outcome variable but on the opposite direction.

The study used hierarchical regression model to test the regression hypotheses by gradually introducing the interaction and interpreting the results output. A moderated effect is actually an interaction between the predictor and the moderator variable which is gradually added into the models. To arrive at conclusion as to whether there is moderation in the interaction, three conditions must hold; first the R square for without and with interactions should vary, secondly the coefficient of the interaction should not be zero and thirdly is that the overall model (F-Value) be significant.

HO3a Ownership identity does not significantly moderate the relationship between debt and financial performance of banks listed at NSE.

The study sought to check moderating effect of ownership identity on the relationship between debt and financial performance of banks listed at NSE.

According to results in Table 4.13 shows that the overall regression of model 3 was significant (F-6,159, *P<0.05*). The R-Square (0.4554) indicating that the first moderation interaction explains up to 45.54% of variation in financial performance up from previous model 42.99%, confirming R-Square change of (ΔR-Square 0.0255%). This means that variance with the interaction is much more than the variance without interaction. Furthermore, the table shows that there is a negative and significant (β= -0.00201, *P<0.05*) moderating effect of ownership identity on relationship between debt and financial performance. The beta coefficient is not zero, the overall model is significant and there is significant R-Square change meaning ownership identity significantly moderate the relationship. The results of the study show that debt finance has negative effect on financial performance and this relationship weakens when moderated with ownership identity. The third hierarchical model is rewritten as;

FP_{it}=0.1093+0.0044$SIZE_{it}$-0.0253AGE_{it}-0.0594D_{it}+0.0990E_{it}-0.0154M_{it}-0.0020D_{it}∗M_{it}+$\mathcal{E}_{it}$……..……..model 3

H_{O3b} Ownership identity does not significantly moderate the relationship between equity and financial performance of banks listed at NSE.

Model 4 of the study sought to check moderating effect of ownership identity on the relationship between equity and financial performance. According to results in Table 4.13 shows that the model 4 was significant (F-7,158, *P<0.05*). The R-Square (0.475) indicating that the second moderation interaction explains up to 47.52% of variation in financial performance up from previous model 45.5%, confirming R-Square change of (ΔR-Square 0.020%). This means that variance with the second interaction is much more than the variance of previous interaction. Furthermore, the table shows that there is a positive and significant (β= 0.002, *P<0.05*) moderating effect of ownership identity on relationship between equity and financial performance. The beta

coefficient is not zero, the overall model is significant and there is significant R-Square change meaning ownership identity significantly moderate the relationship. The results of the study shows that equity financing have positive effect on financial performance and the relationship weakens when moderated. The forth hierarchical model is rewritten as;

FP_{it}=0.0958+0.0041$SIZE_{it}$+-0.0204AGE_{it}-0.0595D_{it}+0.1354E_{it}-0.0137M_{it}-0.0024D_{it}∗M_{it}+0.0020E_{it}∗M_{it}+$\mathcal{E}_{it}$…… ……..…Model 4

Table 4.13: Moderating Effect

	Model 1	**Model 2**	**Model 3**	**Model 4**
Financial performance	**Coef.**	**Coef.**	**Coef.**	**Coef.**
_cons	0.052(0.032)	0.112(0.037)	0.109(0.037)	0.096(0.037)
Bank Age	-0.046(0.014)	-0.026 (0.013)	-0.025(0.012)	-0.020 (0.012)
Bank Size	0.009(0.001)	0.005(0.001)	0.004 (0.001)	0.004(0.001)
Debt		-0.067(0.022)	-0.059(0.021)	-0.060(0.021)
Equity		0.097(0.037)	0.099(0.037)	0.135(0.039)
Ownership		-0.015 (0.002)	-0.015(0.002)	-0.014(0.002)
Debt*Own			-0.002(0.001)	-0.002(0.001)
Equity*Own				0.002(0.001)
Model summary statistics				
sigma_u	*0.020*	*0.011*	*0.011*	*0.009*
sigma_e	*0.009*	*0.008*	*0.008*	*0.008*
Rho	*0.831*	*0.674*	*0.669*	*0.563*
Hausman	*0.00*	*0.042*	*0.003*	*0.007*
R-sq	*0.215*	*0.430*	*0.455*	*0.4752*
ΔR-sq	-	*0.215*	*0.025*	*0.020*
F	*22.31*	*24.13*	*22.16*	*20.44*
Prob> chi2	*0.000*	*0.000*	*0.000*	*0.000*

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings obtained from the analysis, the conclusions and the recommendations for policy, practical, managerial, theoretical and for future research

5.1 Summary of the Findings

The main objective of the study was to determine the moderating effect of ownership identity on the relationship between capital structure and financial performance of banks listed at Nairobi Securities Exchange. The capital structure constructs in the study were debt and equity financing. The moderating variable was ownership identity, and the dependent variable was financial performance. The target population for the study comprised of 11 commercial banks listed at Nairobi Securities Exchange and which have been consistently in operation for the study period between 2003 and 2018. A 16-year data analysis was conducted for the periods from 2003 to 2018, resulting to a total of 176 firm-year observations. NSE listed bank suited the study since the variables required information which are provided by banks most of which are listed at the NSE and are regulated by the CMA.

5.1.1 Summary of the Descriptive Results

The study's descriptive results indicate that on average, bank performance was relatively low at 0.03977, profit to total assets ratio. However, a relatively higher performance was evident in the years between 2010 and 2014. Also, to note on the findings on capital structure is that debt financing had a mean of 0.0854091.

Equity financing on the other hand also indicated a low ratio with a mean of 0.02% meaning the banks did not prefer equity as a financing tool during the study period. The study findings further indicated that most of the banks in the study had domestic ownership identity with mean of 0.5625. Bank size was found to have an average of 18.8079 natural log of total assets, while in terms of age the listed banks at the NSE had a mean of 61.4 years.

5.1.2 Summary of the Correlation Results

Correlation analysis was conducted to check for association between study variables. The study results indicate that Debt has a negative (r=-0.2705) and significant correlation with Financial Performance. This means that financial performance decrease with increase in debt financing due too much obligations until the banks commits its profits to debts.

The correlation results further shows that Equity has a positive (r= 0.1052) and significant correlation with Financial Performance. It is therefore concluded that when equity financing increases, financial performance increases as well. The observation is due to the fact that equity financing earns more capital for further investment and expansion for the firm.

Firm size portrayed a positive (r=0.5948) and significant association with Financial Performance. This means that as the bank grows in size, then financial performance increases as well. The observation is due to the fact that expansion by the bank creates an avenue for more income, and therefore higher performance.

Finally, the correlation results also indicate that bank age has a negative (r= -0.3718) and significant relationship with Financial Performance. This has the implication that

as the bank matures over time, its financial performance declines through the life cycle. At growth stage, the firm portrays higher performance, which starts increasing at a decreasing rate at the maturity stage, and finally drops at the declining stage.

5.1.3 Summary of the Regression Results

In order to check on the direct and indirect effects, a hierarchical regression model was used. The regression comprised of four models; the first model regressed financial performance with bank size and age to check on the effects of the control variables. The second model regressed financial performance with the control variables, independent variables and the moderator, while the third and the fourth models subsequently introduced the interactions. The first regression model indicates that Bank Age has a negative and significant effect on financial performance while Bank size has a positive and significant effect on financial performance.

5.1.3.1 Debt and Financial Performance

The study results indicate that debt financing has a negative and significant effect on financial performance (β = -0.002, $P<0.05$). The P-value was less than 0.05 meaning the null hypothesis (Ho) stating that Debt has no significant effect on financial performance of banks listed at NSE is rejected, and concluded that debt financing has a significant effect on financial performance. The negative coefficient indicates that increase in debt decreases financial performance. This has an implication that as banks depend on more debt, their financial performance declines majorly due to debt liability and interest repayment which results in reduction in profitability. It therefore follows that profitable banks depend more on equity than debt. Debt finance is expensive to acquire and to service due to the high interest paid on debt owners unlike equity finance where the owners are paid dividends which depend on profitability of the bank.

5.1.3.2 Equity and Financial Performance

The study findings further indicate that equity financing has a positive and significant effect on financial performance (β = 0.002, $P<0.05$). The P-value was less than 0.05 meaning the null hypothesis (Ho) stating that equity has no significant effect on financial performance of banks listed at NSE is rejected, and concluded that equity financing has a significant effect on the financial performance of banks. The positive coefficient further means that an increase in equity increases the financial performance. It therefore follows that profitable banks depend more on equity than debt because debt finance is expensive to acquire and to service due to the high interest paid. With equity financing the owners are paid dividends which depend on the profitability of the bank.

5.1.3.3 Moderating Effect of Ownership Identity

The study analyzed for the moderating effect of ownership identity on the effect of capital structure on bank's financial performance. According to Hayes (2009), three conditions must hold; First, the R square for without and with interaction should vary, secondly, the coefficient for the interaction should be different from zero, and lastly is that the overall model (F-value) should be significant.

The study output indicate that ownership identity significantly moderates the relationship between Debt financing and financial performance (β= - 0.002; ρ<0.05; ΔR^2 =0.025). It is therefore concluded that Ownership identity moderates the relationship between debt financing and financial performance. This satisfies the conditions for moderation; on R-square change at 0.025, Beta coefficient for the interaction at -0.002 and significant F-value at 5% significance level.

Furthermore, Ownership identity also has a significant moderating effect on the relationship between equity financing and financial performance (β= 0.002; ρ<0.05; ΔR^2 =0.020). It is therefore concluded that ownership identity moderates the relationship between equity financing and financial performance. It satisfies the conditions for moderation since R-square change is 0.020, the coefficient is 0.002 and the F-value is significant at 5% significance level.

5.2 Conclusion

The study sought to determine the effect of capital structure on financial performance, and the moderating role of ownership identity on the relationship. It specifically analyzed the moderating role of ownership identity on the relationship between debt financing and financial performance, and its moderating effect on the relationship between equity financing and financial performance. Generally, capital structure was found to have a significant effect on financial performance of banks listed at the Nairobi Securities exchange. Furthermore, ownership identity proved to moderate the relationship.

The study findings indicate that debt financing has a significant effect on the financial performance of banks. The beta coefficient further portrayed a negative effect on financial performance, meaning unit increase in debt decreases financial performance by 0.002 units. This is mainly attributed to the fact that debt is expensive to acquire and to service the interest for the loans. It implies therefore that debt as a form of financing is not favorable in reference to the financial performance. Debt liability may cripple the bank if borrowed in large values especially in cases where such monies are used for recurrent expenditures purposes.

In contrast, equity financing was found to have a positive significant effect on financial performance. It therefore follows that a unit increase in equity financing increases financial performance by 0.002 units. This means that profitable banks depend more on equity as a financing tool since the relationship is proportional. Under equity financing, the owners are paid dividends which depend on the profitability of the bank.

Ownership identity was also found to have a moderating effect on the relationship between debt financing and financial performance of banks. This was confirmed by the fact that the results satisfied the conditions for moderation, that is; R-square without and with interaction which vary (R-square change= 0.025), the beta coefficient for the interaction is -0.002 which is different from zero and a significant F-value at 5% significance level. Debt exhibited a negative relationship with financial performance, but with the interference of ownership identity in the relationship, the effect weakened.

Finally, Ownership identity was also evidenced to have a moderating effect on the relationship between equity financing and financial performance of banks Listed at the Nairobi Securities Exchange. The indirect relationship therefore satisfied the Hayes (2009) conditions for moderation of; varying R square for the interaction (ΔR^2 =0.020), non-zero coefficient of variation (0.002) and significant F-value.

5.3 Recommendations

5.3.1 Policy Recommendations

The study recommends the need for an effective internal and external control on the source of finances for banks. The governments, other regulators and policy makers such as the NSE, CMA and Central Banks should encourage equity financing

methods as opposed to debt financing. This is because debt has a negative impact on the bank's financial performance as it is expensive to acquire and maintain in terms of interest. It is therefore important for banks to make full disclosure of the source of funding and the regulators should lay out clear policies on the financial sources. More of equity financing techniques should be encouraged as it indicated a positive implication on the financial performance of banks.

5.3.2 Managerial implication

The study findings conclude that Ownership identity significantly moderates the relationship between both debt and equity and financial performance of banks. Due to the positive impact of equity financing, managers should then encourage using the same technique to finance their assets and activities. The Managers should also discourage debt financing as it highly commits the bank to external financial liabilities. This goes a long way in informing their financial decisions where debt financing should always act as a last resort. Furthermore, the negative effect of debt is moderated by the ownership identity since foreign firms are associated with managers who are risk takers in nature and might go for more debt.

5.3.3 Theoretical implication

To the researchers and scholars, the findings of this study add to extant literary works by confirming the moderating effect of ownership identity on the relationship between capital structure and bank financial performance. The study findings agrees with the trade-off theory which states that a corporation ascertains its optimal financial structure by balancing the benefit of debt (the tax advantage of debt) against expenses of excessive debt (financial distress) and the resultant equity agency expenses against debt agency costs. In contrast, the study disagrees with the Myres and Majluf (1984) pecking order hypothesis that debt is preferred to equity, The theory suggests that the

firm should follow a well-specified order of priority with respect to financing sources to minimize its information asymmetry costs, first choosing retained earnings, then debt and finally raising equity as a last option. Finally, the Modigliani and miller (mm) theory contradicts with the findings as it presumes that financial structure of a firm has no implication on the firm value.

5.3.4 Implication to Shareholders and Investors

To the bank's shareholders and investors, the study enlightens on the need for a thorough analysis and due diligence before capital structure decisions, irrespective of whether the bank is foreign or domestic since it has an implication on the bank's performance. This goes a long way in ensuring minimal diverse effects that capital structure may have on the financial performance of the banks. Through optimal capital structure decisions, investors are able to make informed investment and lending decisions that ensure they get a good return on their investment.

5.4 Recommendations for Future Research

The study's context comprised of banks listed at the Kenyan Nairobi Securities Exchange and therefore the study recommends future researchers to explore on the same relationships within other contexts such as in developed nations, where listed firms tend to possess different characteristics. Further studies should also consider introducing other moderating or mediating variables to the relationship between capital structure and firm performance so as to check on the effects, while controlling for other variables such as leverage and bank growth as they may have implication on the financial performance.

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APPENDICES

Appendix I: Tables

Financial performance, Control variables

Model 1

R-sq: within = 0.2149 between = 0.5750 overall = 0.3486 corr(u_i, Xb) = -0.9253					Obs per group: min = 16 avg = 16.0 max = 16 F(2,163) = 22.31 Prob > F = 0.0000	
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank Age	-0.04567	0.0139598	-3.27	0.001	-0.07323	-0.0181
Bank size	0.008545	0.001486	5.75	0.000	0.005611	0.011479
_cons	0.051731	0.0318562	1.62	0.106	-0.01117	0.114635
sigma_u	0.02049					
sigma_e	0.009226					
Rho	0.831432	(fraction of variance due to u_i)				

Financial performance, Control, Independent Variables

Model 2

R-sq: within = 0.4299 between = 0.6737 overall = 0.5043 corr(u_i,Xb) = -0.7894					Obs per group: min = 16 avg = 16.0 max = 16 F(5,160) = 24.13 Prob > F = 0.0000	
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank age	-0.02642	0.0126668	-2.09	0.039	-0.05144	-0.00141
Bank Size	0.004827	0.0013997	3.45	0.001	0.002062	0.007591
Debt	-0.06745	0.0215932	-3.12	0.002	-0.11009	-0.0248
Equity	0.097163	0.0374989	2.59	0.010	0.023106	0.17122
Ownership identity	-0.01451	0.0023785	-6.10	0.000	-0.01921	-0.00982
_cons	0.112327	0.0374051	3.00	0.003	0.038456	0.186198
sigma_u	0.011402					
sigma_e	0.007936					
Rho	0.673653	(fraction of variance due to u_i)				

Financial performance, Control, Independent, Interaction 1

Model 3

R-sq: within = 0.4554 between = 0.6648 overall = 0.5122 corr(u_i, Xb) = -0.7688				Obs per group: min = 16 avg = 16.0 max =16 F(6,159) = 22.16 Prob > F = 0.0000		
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank age	-0.02526	0.0124261	-2.03	0.044	-0.0498	-0.00072
Bank size	0.004415	0.0013806	3.20	0.002	0.001688	0.007141
Debt	-0.05942	0.0213737	-2.78	0.006	-0.10164	-0.01721
Equity	0.098989	0.036771	2.69	0.008	0.026366	0.171612
Ownership identity	-0.01536	0.0023522	-6.53	0.000	-0.02	-0.01071
Debt*Own	-0.00201	0.0007374	-2.73	0.007	-0.00347	-0.00056
_cons	0.109291	0.0366898	2.98	0.003	0.036829	0.181753
sigma_u	0.011059					
sigma_e	0.00778					
Rho	0.668924	(fraction of variance due to u_i)				

Financial performance, Control, Independent, Interaction 1, Interaction 2

Model 4

R-sq: within = 0.4752 between = 0.6982 overall = 0.5563 corr(u_i, Xb) = -0.6639			Obs per group: min =16 avg = 16.0 max =16 F(7,158) = 20.44 Prob > F = 0.0000			
Financial performance	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Bank Age	-0.02037	0.0123999	-1.64	0.102	-0.04486	0.004124
Bank Size	0.004057	0.0013674	2.97	0.003	0.001357	0.006758
Debt	-0.05951	0.0210482	-2.83	0.005	-0.10108	-0.01794
Equity	0.135399	0.0391635	3.46	0.001	0.058048	0.21275
Ownership identity	-0.01374	0.0024094	-5.70	0.000	-0.0185	-0.00898
Debt*Own	-0.00247	0.0007495	-3.29	0.001	-0.00395	-0.00099
Equity*Own	0.001782	0.0007299	2.44	0.016	0.00034	0.003223
_cons	0.095828	0.0365496	2.62	0.010	0.02364	0.168017
sigma_u	0.008689					
sigma_e	0.007662					
Rho	0.562596	(fraction of variance due to u_i)				

Hausman's Test: Model 1

---- Coefficients ----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
Bank age	-.0456674	-.0114397	-.0342276	.0132926
Bank size	.008545	.0052311	.0033139	.0012965

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(2) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 6.65
Prob>chi2 = 0.0360

Hausman's Test: Model 2

---- Coefficients ----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
Bank age	-.0264213	-.0079431	-.0184782	.0123301
Bank size	.0048267	.0037001	.0011266	.0012624
Debt	-.0674489	-.0683897	.0009409	.0057212
Equity	.0971629	.1311209	-.033958	.0120223
Own	-.0145146	-.0129407	-.0015739	.0014189

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 11.50
Prob>chi2 = 0.0422

Hausman's Test: Model 3

---- Coefficients ----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
Bank age	-.0252597	-.0074712	-.0177885	.0121886
Bank size	.0044147	.0037691	.0006456	.0012655
Debt	-.0594234	-.0647853	.0053619	.0057586
Equity	.098989	.142992	-.044003	.0124746
Own	-.0153565	-.0125811	-.0027755	.0015515
Debt*own	-.0020131	-.0018004	-.0002127	.0001022

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 21.60
Prob>chi2 = 0.0014

Hausman's Test: Model 4

---- Coefficients ----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fe	re	Difference	S.E.
Bank age	-.0203672	-.0070336	-.0133336	.0121961
Bank size	.0040574	.0038313	.0002261	.0012631
Debt	-.0595093	-.0664634	.0069541	.0064125
Equity	.1353989	.1806943	-.0452954	.0167687
Own	-.0137385	-.0111322	-.0026062	.0016757
Debt*own	-.0024657	-.0023084	-.0001572	.000154
Equity*own	.0017816	.0021748	-.0003932	.000169

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 16.10
Prob>chi2 = 0.0242

Appendix II: Listed Banks

NO	BANK	YEAR OF INCORPORATION	OWNERSHIP IDENTITY
1	Barclays Bank of Kenya Ltd	1916	Foreign
2	CFC Stanbic Holdings Limited	1958	Domestic
3	Diamond Trust Bank Kenya Ltd	1945	Foreign
4	Housing Finance Group Ltd	1965	Domestic
5	KCB Group Holdings Ltd	1896	Domestic
6	National Bank of Kenya Ltd	1968	Domestic
7	NIC Bank Ltd	1959	Domestic
8	Standard Chartered Bank Ltd	1910	Foreign
9	Equity Group Ltd	1984	Domestic
10	The Cooperative Bank of Kenya Ltd	1965	Domestic
11	I &M Holdings Ltd	1974	Domestic

Appendix III: Work Plan

	Time in month, year 2020,2021					
ACTIVITY	**Mar-Jun**	**July**	**Aug**	**Sept**	**Feb, 2020**	**Mar-Oct, 2021**
Identification of research topic						
Development of research proposal and identification of relevant materials						
Defense of research proposal						
Data Collection and analysis						

Appendix IV: Data Collection Schedule

			YEARS FROM 2003 TO 2018															
Co.	**VARIABLE**	**INDICATOR**	**003**	**004**	**005**	**006**	**007**	**008**	**009**	**010**	**011**	**012**	**013**	**014**	**015**	**016**	**017**	**018**
	Financial Performance	Net Income																
		Total Assets																
	Debt	Total Debt																
		Total Assets																
	Equity	Share capital																
		Total Assets																
	Ownership Identity	1= Domestic 0= Foreign																
	Bank Size	Log of Total Assets																
	Bank Age	Year 2018 minus the year of incorporation																

Appendix V: Research Permit NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **914877**

Date of Issue: **15/December/2020**

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