

**CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE OF LISTED
COMPANIES AT THE NAIROBI SECURITIES EXCHANGE MARKET: A CASE OF
COMMERCIAL BANKS IN KENYA**

**BY
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DECLARATION

I hereby declare that this project is my original work and has not been presented for academic award or qualification in any institution of higher learning. Appropriate referencing has been made where citation of other people's work has been done. I take full responsibility for the unintended typographic errors and or any short coming that may be found in this project.

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Declaration by Supervisor

This research project has been submitted for examination with my approval as the University supervisor.

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DEDICATION

I dedicate this research project to my spouse Carolyn Aswani Were, and our daughter Favour Famous Charles. This project would not have been possible without their time, encourage, support, and sacrifice, which have contributed significantly towards completing this study successfully.

Thank you and God bless you all.

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OPERATIONAL DEFINITION OF TERMS

Capital Structure	Refers how a company listed at the Nairobi Securities Exchange (NSE) market finances its operations as well as growth by utilising different sources of funds (Frank & Goyal, 2011). Debt comes in the form of bond issues or long-term notes payable, while equity is categorised as common stock, preferred stock or retained earnings.
Control	This is the extent of powers of the shareholders of the NSE listed companies to make decision and to influence voting during annual general meetings (Matemilola & Bany-Ariffin, 2011). This is based on the number of ordinary shares they hold.
Cash flow	Is the amount of money the NSE listed companies transfer in and out of their businesses, thus affecting liquidity (Saeed, Gull & Rasheed, 2013).
Financial Leverage	Refers to how the NSE listed companies use debts to acquire additional assets (Afza & Nazir, 2008).
Financial Performance	Refers to the accomplishment of the NSE listed firms, specifically banks system's task measured against preset known standards of accuracy, completeness, cost, and speed (Abdul, 2012). The banking sector targets the improvement of financial performance. Financial performance is a measure of the bank's policies and operations in monetary terms, which may be reflected by indicators, such as return on equity (ROE) and return on assets (ROA).
Securities Exchange Market	Refers to the market in which shares (stock), bonds, and other securities of publicly listed companies are issued and traded through either exchanges or over-the-counter markets (Adekunle & Sunday, 2010).

**Weighted Average
Cost of Capital**

Is the average rate of return NSE listed companies target to compensate all its different investors (Akhtar & Oliver, 2009). The weights are the fraction of each financing source in the firm's target capital structure.

LIST OF ABBREVIATIONS

BoD:	Board of Directors
CAPM:	Capital Asset Pricing Model
DCF:	Discounted Cash Flow
D/E:	Debt-Equity Ratio
EBIT:	Earnings Before Interest and Taxes
IRR:	Internal Rate of Return
NPV:	Net Present Value
NSE:	Nairobi Securities Exchange
ROA:	Return on Assets
ROE:	Return on Equity
ROI:	Return on Investment
SPSS:	Statistical Package for the Social Sciences
WACC:	Weighted Average Cost of Capital

ABSTRACT

The main goal of every commercial bank is to operate profitably to maintain stability and sustainable growth. Capital structuring is viewed as critical drivers for financial performance of the banking institution. An appropriate capital structure is a critical decision for any business organization to be taken by business organization for maximization of shareholders wealth and sustained growth. The purpose of this study was to examine how capital structure influences financial performance of NSE listed firms in Kenya. The major focus of this study was to investigate firms' specific factors such as working average cost of capital, firm leverage, cash flow, and control and their effects on financial performance of NSE listed banks in Kenya. The researcher adopted descriptive research design to achieve this aim. The study targeted eleven banks listed at the NSE and they were included in the sampling frame if they had a five-year financial report. Document review was used for collecting secondary data from 2011-2015 annual reports. Descriptive statistics (mean and standard deviation) and multiple regression analysis and statistical package for social scientists (SPSS) computer software (version 20) was used to analyse data of the banks specific factors and financial performance, measures return on asset (ROA) of the firms over a period of five years. The study findings ascertained that increasing unit levels of cost of capital, financial leverage, cash flow, and control have positive effect on the financial performance of firms listed at the Nairobi Securities Exchange, Nairobi. This study, therefore, recommends that commercial banks listed at the Nairobi Securities Exchange need to reassess their capital structuring so that they can realise better financial performance. This study provides a basis for enhancing a strong capital structure. The findings of this study may guide building strong capital structure, specifically on cost of capital, financial leverage, cash flow, and control. In lieu of these determinants of capital structure, this study offers a basis to improving financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Capital structure is a key area of global concern that managers face when making financial decisions. There are a number of determinants of capital structure, but this study was limited to financial leverage or trading on equity, cash flow, cost of capital, size of the firm, flexibility, floatation costs, and marketability. Importance of capital structure is derived from the fact that it is highly linked to a firm's ability to fulfil the needs of its stakeholders. Debt-equity mix can take various forms such as 40% equity: 60% debt, 80% equity: 20% debt, as well as X% equity: Y % debt (Mommel & Raupach, 2010). From the three options, alternative one is that the firm has less equity capital. Alternative one shows that the firm has more debt than shareholders' funds, while alternative two is a situation where shareholders have put in more funds than debts. Alternative three is more practical in real life situation because it combines both percentages of equity and debt in capital structure, thus any possible advantages of leverage are tapped. The mix of equity and debt has been a subject of global debate about how it can be determined, evaluated, and accounted (Ajibolade & Sankay, 2013).

Profitable firms depends less on debt in their capital structure, compared to less profitable ones. Firms that show high growth rates are the ones with high debt to equity ratio (Abdul, 2012). Debt financing has a benefit in the sense that it has tax-deductibility component of interest charges that leads to reduced cost of capital (Adekunle & Sunday, 2010). This leaves firms' management at a dilemma position on whether to adopt an increase in debt percentage in a firm's capital structure. If an increase in debt financing would result in a corresponding increase in shareholders' earnings, then firms' management ought to have adopted 100% debt financing in their capital structure, but there are cost components linked to debt finance. Therefore, between 100% debt financing and 100% equity financing, a certain debt-equity mix needs to be decided upon for adoption in the capital structure. A firm's attempt to design a capital structure should consider that the capital structure be designed in line with the objective of shareholders' wealth maximisation. In addition, it should be designed by putting in consider it is not easy to come up

with exact capital structure, and therefore, efforts need be put in order to attain the best approximation to optimal capital structure (Memmel & Raupach, 2010).

Each firm differs from another in terms of nature, size, competitive conditions, cost of funds, risk, earnings, and market expectations. A finance professional may be required to focus beyond such considerations since empirical model that can incorporate all the subjective features may be lacking (Brealey, Myers & Allen, 2008). There are quantitative, qualitative, and subjective factors that a firm's management can consider when planning and designing a capital structure. In addition, capital structure is evaluated concerning its totality, and finance management team ought to ascertain a capital structure that is beneficial to their firm. Moreover, any legal provision about the capital structure ought to be taken into account.

Factors such as size of the firm, its profitability, debt ratio, growth, debt maturity, and tangibility have been ascertained but considerations influencing capital structure decisions can be explored in the context of risk minimisation. A firm's capital structure design ought to focus on risk because it is directly linked to value (Nyanga, 2012). Risk may be factored for capital structure to be in consistent with a firm's business risk and since capital structure leads to some level of financial risk.

Business risk refers to the relationship between sales and Earnings before Interest and Taxes (EBIT) of a firm. A firm with a high operating leverage (that is, one that uses fixed operating cost) has relatively high business risk. Even though operating leverage is a crucial factor influencing business risk, other factors such as cost stability and revenue stability also influence it (Ebaid, 2009). Cost stability refers to the extent of relative input price predictability. More predictable and stable input prices have lower business risk than those which are less predictable and less stable (Ajibolade & Sankay, 2013). On the other hand, revenue stability can be defined as the extent of variability of sale revenues of a firm, and it depends on demand stability and price stability of a firm's product. A firm that has relatively stable demand and prices of its products has a stable revenue stream that leads low fixed costs levels. On the contrary, a firm with highly volatile demand and prices of its products has unstable sales revenue that leads to high business risk levels (Frank & Goyal, 2011). Each firm has a different business risk from another one, and capital structure decisions do not affect business risk, and therefore, business

risk level has to be taken as provided (Afza & Nazir, 2008). A firm with a higher business risk has to be more careful when designing its capital structure. A firm with a low business risk inclines towards a high-levered capital structure, while one with a high business risk leans towards a less levered capital structure.

1.1.1 Capital Structure

A firm's capital structure has a direct effect on its financial risk that emanates from financial leverage usage (Akhtar & Oliver, 2009). Financial leverage focuses on the link between earnings before interest and taxes (EBIT) and earnings before tax (EBT). A greater financial risk is prominent with firms that use fixed cost financing, which is debt, that comprises of preferred stock as well as finance leases in their capital structure (Hamidreza, Fatemeh &, Hamid, 2014). Valuation process incorporates factors of financial risk level and its associated returns level, and therefore, firms have to evaluate the potential effect of alternative capital structures of these elements and finally on value to choose the best capital structure.

Capital structure is efficient if it maintains a firm's total risk at minimum level, and a firm's long term solvency as well as its financial risk is often assessed (Matemilola & Bany-Ariffin, 2011). Excessive use of debt financing is eluded because it affects both solvency and financial risk of a firm. For close to five decades of studies on this topic, financial and economists experts have never reached a consensus on the extent capital structure influences financial performance (Nyanga, 2012). Study findings and empirical outcomes of the previous decades have ascertained that capital structure has more importance than the findings of pioneer work of Miller-Modigliani model. Financial experts and economists might be far from perfect equity-debt combination, but exertions of about five decades of studies have offered evidence that capital structure influences performance of firms. Therefore, this study attempts to add to empirical studies on the extent of capital structure influence on performance of NSE listed companies context.

1.1.2 Measure of Financial Performance

Financial performance can be measured by return on investment (ROI), return on equity (ROE), and return on assets (ROA) as the dependent variable. A firm's financial performance, in the

shareholders' view, is measured by how better off the shareholders are at the end of a period, than the investors were at the beginning of the period. This is determined using financial ratios, which are obtained from financial statements such as income statements, cash flow statements, and balance sheet or by using data on stock market prices (Altan, Yusufazari & Beduk, 2014). The financial ratios provide an indication of whether the firm is achieving the owners' objectives of making them wealthier than they were before. The ratios are also employed to compare a company's ratios with others or to find trends of performance over time. Adequate performance measure is meant to provide an account of all the consequences of investments, on the wealth of shareholders (Dietrich & Wanzenried, 2014). The main objective of shareholders making investment in a business is to increase their wealth, thus the measurement of performance of a firm ought to provide an indication of how wealthier the shareholder has become as a result of the investment over a specific time period.

Financial leverage has a positive effect on the firm's return on equity provided that earnings' power of the firm's assets exceeds the average interest cost of debt to the firm. Adesina (2012) also found a significantly positive relationship between debt ratio and measures of profitability. Cooper and Schindler (2014) identified positive association between debt and profitability for industries. Cornett, Guo, Khaksari, and Tehranian (2009) established a significantly positive relation between profitability and total debt as a percentage of the total buyout-financing package.

1.1.3 Capital Structure and Financial Performance

Ongore and Kusa (2013) contend that the choice of capital structure significantly influence performance of firms. Hammes (2003) examined the relation between capital structure and performance by comparing Polish and Hungarian firms to a large sample of firms in industrialized countries. The researcher used panel data analysis to investigate the relation between total debt and performance as well as between different sources of debt namely, bank loans, and trade credits and firms' performance measured by profitability. The results show a significant and negative effect for most countries. The researcher found that the type of debt, bank loans or trade credit is not of major importance, what matters is debt in general. Abdul (2012) found that the relationship between rates of return and debt indicates a negative

relationship for long-term financing. The researchers, however, found a positive relationship for short-term financing and equity. Abor (2007) in his scholarly works on debt policy and performance of Medium Sized Enterprises found the effect of short-term debt to be significantly and negatively associated with gross profit margin for both Ghana and South African firms. This indicated that increasing the amount of short-term debt would result in a decrease in the profitability of the firms.

There are several determinants that influence capital structure, but this study was limited to four factors including, cost of capital, financial leverage or trading on equity, cash flow, and control. Measuring the costs of various sources of funds is a complex subject and needs a separate treatment. That it is desirable to minimize the cost of capital, thus cheaper sources should be preferred, other things remaining the same (Olweny & Shiphoh, 2011). The cost of a source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. Shareholders than debt-holders assume a high degree of risk. In the case of debt-holders, the rate of interest is fixed and the company is legally bound to pay interest, whether it makes profits or not Rate of dividend for shareholders is not fixed and the Board of Directors (BoD) has no legal obligation to pay dividends even if there is no profits have been made by the company.

The loan of debt-holders is returned within a prescribed period, while shareholders can get back their capital only when the company is wound up. This leads one to conclude that debt is a cheaper source of capital than equity. The tax deductibility of interest charges further reduces the cost of debt (Onaolapo & Kajola, 2010). The preference share capital is cheaper than equity capital, but is not as cheap as debt is. Cost of capital is inversely related to amount of debt, and therefore a firm can minimise its overall cost of capital by using a large amount of debt. A firm would opt for less cost of capital in its capital structure decision by using a large amount of debt.

The use of sources of finance with a fixed cost, such as debt and preference share capital, to finance the assets of the company is known as financial leverage or trading on equity. If the assets financed by debt yield a return greater than the cost of the debt, the earnings per share will increase without an increase in the owners' investment (Olalekan & Adeyinka, 2013). Earnings per share will also increase if preference share capital is used to acquire assets. Leverage effect

is, however, felt more in case of debt because the cost of debt is usually lower than the cost of preference share capital, and the interest paid on debt is a deductible charge from profits for calculating the taxable income while dividend on preference shares is not. However, because of its effect on the earnings per share, financial leverage is one of the important considerations in planning the capital structure of a company (Brealey, Myers & Allen, 2008). Companies with high level of the Earnings Before Interest and Taxes (EBIT) can make profitable use of the high degree of leverage to increase return on the shareholders' equity. One common method of examining the effect of leverage is to analyse the relationship between Earnings Per Share (EPS) at various possible levels of EBIT under alternative methods of financing. The EBIT-EPS analysis is one important tool in the hands of the financial manager to get an insight into the firm's capital structure management. He can consider the possible fluctuations in EBIT and examine their effect on EPS under different financing plans (Mwangi, 2010). One of the features of a sound capital structure is conservation. Conservation does not mean employing no debt or a small amount of debt. Conservatism is related to the assessment of the liability for fixed charges, created by the use of debt or preference capital in the capital structure in the context of the firm's ability to generate cash to meet these fixed charges. The fixed charges of a company include payment of interest, preference dividend and principal.

The amount of fixed charges will be high if the company employs a large amount of debt or preference capital. Whenever a company thinks of raising additional debt, it should analyse its expected future cash flows to meet the fixed charges. It is obligatory to pay interest and return the principal amount of debt. If a company is not able to generate enough cash to meet its fixed obligations, it may have to face financial insolvency. The companies, which expect large and stable cash inflows, can employ a large amount of debt in their capital structure. It is somewhat risky to employ sources of capital with fixed charges for companies whose cash inflows are unstable or unpredictable (Echeboka, Egbunike & Ezu, 2014)). In designing the capital structure, sometimes the existing management is governed by its desire to continue control over the company. The existing management team may not only want to be elected to the Board of Directors but may also desire to manage the company without any outside interference. The ordinary shareholders have the legal right to elect the directors of the company. If the company

issues new shares, there is a risk of loss of control. This is not a very important consideration in case of a widely held company.

The shares of such a company are widely scattered. Most of the shareholders are not interested in taking active part in the company's management. They do not have the time and urge to attend the meetings. They are simply interested in dividends and appreciation in the price of shares. The risk of loss of control can almost be avoided by distributing shares widely and in small lots (Magara, 2012). Maintaining control however could be a significant question in the case of a closely held company. A shareholder or a group of shareholders could purchase all or most of the new shares and thus control the company. Fear of having to share control and thus being interfered by others often delays the decision of the closely held companies to go public. To avoid the risk of loss of control the companies may issue preference shares or raise debt capital.

1.1.4 Commercial Banks Listed in Nairobi Securities Exchange

The Nairobi Securities Exchange, founded in 1954 is a listed company of stockbrokers, which is currently regarded as one of the most active capital markets in Africa. NSE as a capital market institution plays an important role in the economic development of the country. It mobilizes domestic savings bringing about the reallocation of financial resources from dormant to active agents (Olweny & Shipho, 2011). Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Nairobi Securities Exchange (NSE) has made it possible for locals to engage in trading equity, thus providing Kenyans with an opportunity to own shares. It also enables firms to raise extra finance for expansion and development. A new issuer publishes a prospectus that provides all pertinent particulars concerning the operations and future prospects and states the price of the issue to raise funds. NSE facilitates the inflow of international capital, and it provides useful tools for privatization programmes.

The main categories of investment listings at the NSE include finance and investment, commercial and services, agricultural sector, and industrial and allied. According to CBK (2015), there were eleven commercial banks listed under the category of finance and investment in the NSE. These commercial banks varied in terms of their geographical coverage, customer base, and asset book. The commercial banks have gone public to raise equity capital and to gain access

to a public market where their shareholders can convert their stock into cash in the future (Kamau & Were, 2013). The performance of the NSE listed commercial banks is under the scrutiny of the shareholders, the Central Bank of Kenya, and the public. Stakeholders of these banks and the public use their performance to make key investment decisions and to assess the state of the economy. The commercial banks tend to adopt a capital structure to drive their performance, increase value on their investors' wealth, gain reputation, and enhance investment confidence in the minds of their shareholders.

1.1.5 Performance of Commercial Banks in Kenya

The CBK (2016) Bank Supervision annual report confirms that in 2015, the banking sector capital and reserves increased by 7.74% from Ksh. 501.7 billion in December 2014 to Ksh. 540.6 billion in December 2015. The large and small peer groups posted increases in capital and reserves while the medium peer group posted a decrease. The movements in peer groups' capital and reserves are linked to the movements of some banks across the peer groups in 2015.

The increase in capital and reserves is because of the additional capital injections by commercial banks to meet the core capital, total capital regulatory requirements, and retained earnings from the profits gained in the year. The pre-tax profit for the sector declined by 5.03% from Ksh. 141.1 billion in December 2014 to Ksh. 134.0 billion in December 2015 (CBK, 2016). The decrease in profitability in 2015 is linked to a faster growth in expenses compared to the growth in income. The banks' income declined by 9.1% in 2015 while expenses increased by a higher margin of 16.3% over the same period. The large peer group accounted for 70.3% of the total pre-tax profit, an increase from 61.0% recorded in 2014. The increase is attributable to the movement of two banks to the large peer group and increase in the amount of profits made by banks in the large peer group. The small peer group proportion of total pre-tax profit increased slightly from 3.2 % in 2014 to 3.3% in 2015, linked to movement of Guaranty Trust Bank to the small peer group. The medium peer group proportion of total pre-tax profit declined to 26.4% from 35.8% because of a shift of two banks to large peer group and two banks made losses in 2015 as compared to one in 2014. Hence, the decrease in income by 9.1% in 2015 and the corresponding increase in expenses by 16.3% during the same period is an indication of a poor performance of the banking sector that warrants further investigation.

1.2 Statement of the Problem

Understanding commercial bank capital structure and its influence in bank profitability and financial performance is crucial to the management of commercial banks, stakeholders as well as other interest groups, including the central bank and the government. Commercial bank capital structure is particular to a given institution, thus the capital structure that determines profitability in one commercial bank is different from other banking institution in Kenya (Okoth & Gemechu, 2013). Capital and stock markets in emerging market are relatively less efficient and incomplete than the developed economies. Firms in emerging markets may not be able to rationalize the financing decisions to follow a clear theoretical approach. In addition, information asymmetry in emerging stock markets is considerably higher than the developed markets.

According to the Central Bank of Kenya, the performance of commercial banks in Kenya has been improving since 2015, and this is evident from the expanding size gross loans of Ksh. 2.17 trillion, a deposit base of 2.57 trillion, and total assets of 3.60 trillion (CBK, 2015). However, despite the improvement in the performance of these banks, capital structure has greatly influence the financial performance of these banks (Kamau & Were, 2013). According to CBK Bank Supervision Annual Report of 2015, commercial banks in Kenya may sometimes fail to make enough return on equity (ROE) or return on investment (ROI) because of decline in earnings and escalating expenses, in spite of all the headlines on commercial banking profitability. Financing decision may lead to reduction or loss of value of strategic assets (Adekunle & Sunday, 2010). Financial reports of NSE listed firms considered for this study, show that their debt financing mainly comprises of short-term debts (Kajola, 2010). However, external financing for NSE listed firms exceed their investments, thus failing to put into account that excessive external financing results in overleverage, which implies that the business is exposed to extensive obligations to external investors, who are likely to disrupt firms' operations as well as their financial returns.

Variables that explain the capital structures in developed nations are also relevant in the developing countries irrespective of differences in institutional factors across these developing nations. However, in Kenya as to the knowledge of the researcher there were few papers, which relates with this title these are Magara (2012), who investigated capital structure and its

determinants at the Nairobi Securities Exchange. Mwangi (2010) investigated empirically the relationship between capital structure and financial performance of firms listed at the Nairobi Stock Exchange. The concern was the dwindling financial performance of the NSE listed companies (Nairobi Securities Exchange, 2015). Those previously conducted research in Kenya were a few investigated determinants of capital structure, but the aim this research was to investigate effects of capital structure on the financial performance of the NSE Listed firms. This study attempted to reduce the gap by analysing the effects of capital structure determinants on performance specifically in the NSE listed companies. Many NSE listed companies do not know explicitly the specific determinants that affect their financial performance, which leading them to make informal decisions regarding their financial mix that are suffer to error (Osoro, 2014). Therefore, the researcher attempt to clarify some of the key firm characteristics that managers need to consider when setting their optimal capital structure. In light of above, there is no extensive of empirical studies in Kenya concerning the relationship between of capital structure and financial performance in the context of the Kenyan NSE market, which is, motivated the researcher to put his own contribution on what factors affect the financial performance of NSE listed companies. While taking in to consideration the insufficient empirical investigation into the factors affecting NSE listed firms' financial performance, the researcher attempted to work on such untouched empirical evidence in the country.

1.3 Objectives of the Study

The aim or general objective of this study was to assess capital structure and financial performance of NSE listed banks in Kenya by using commercial banks in Kenya as the case study

The following were specific objectives derived from the aim of this study.

- i. To determine effect of cost of capital on financial performance of banks listed at the NSE, Kenya
- ii. To establish the effect of financial leverage on financial performance of banks listed at the NSE, Kenya

- iii. To assess the effect of cash flow on financial performance of banks listed at the NSE, Kenya
- iv. To evaluate the impact of control on financial performance of banks listed at the NSE, Kenya

1.3.1 Research Questions

- i. What is the effect of cost of capital on financial performance of banks listed at the NSE, Kenya?
- ii. What is the effect of financial leverage on financial performance of banks listed at the NSE, Kenya?
- iii. What is the effect of cash flow on financial performance of banks listed at the NSE, Kenya?
- iv. What is the effect of control on financial performance of banks listed at the NSE, Kenya?

1.4 Significance of the Study

The study was conducted to provide some insight on capital structure that forms critical decision for a business entity. Organisations may benefit from this study since it focuses on financing decisions that enable them to maximise their returns on assets and equity. Theoretical knowledge gathered from this research may also enable firms to understand how capital structure decisions affect their ability to deal with a competitive environment.

The study is important for finance managers because it may help them come up with financing decisions for an effective debt-equity mix, which are the proportions of debt capital and equity capital that optimise their firms' value. This will also help in maximising shareholders' earnings as well as reducing the firms' risk. Results obtained from this study came up with recommendations to help NSE listed firms make capital structure decisions to improve on their performance. Scholars, Managing Directors (MDs) and finance managers of NSE listed firms would find the study output a useful resource material.

1.5 Scope of the Study

The main objective of this study was limited to the effects of the capital structure determinants on the financial performance in the context of the NSE listed banks in Kenya during the period 2011-2015. This study had clear scope in the amount of data that were be used because the researcher used only data from annual reports, balance sheet and income statement during the period (2011- 2015). This study only focused on the issues raised in the research question. This study was based on secondary data collected from review of documents, the Nairobi Securities Exchange handbooks, annual reports of the NSE listed banks, and published books of accounts.

1.6 Limitation of the Study

One of the limitations of this study was that relying upon approximation and relative measure with respect to the data source might negatively influence the results. The study mitigated this limitation by depending purely on accurate, reliable and quality secondary data sources. The study was limited to the banking industry which is quite wide, but the researcher avoided this limitation by concentrating only on eleven commercial banks listed at the NSE.

The study will also be based in banks headquarters only based in Nairobi County and may not include more counties around the Country owing to the amount of time and resources available. This study may therefore suffer from generalizability of the results if the nature of projects undertaken is significantly different from those in banking sector in Nairobi County. In addition, the findings of this study will be limited to the extent to which the respondents will be willing to provide accurate, objective and reliable information. The researcher will check for consistency and test the reliability of the data collected.

1.7 Organisation of the Study

This project is structured into five chapters as follows: the foregoing chapter one provides the research background, research objectives, significance of the study, scope, and the limitations encountered in the course of the study. Chapter two presents literature review on effect of determinants of capital structure on financial performance. Chapter three deals with the

methodology employed in the study, the study findings and their interpretation are presented in chapter four, while chapter five has conclusions of the study and the policy implications.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the literature relevant to the study. It follows the conceptual framework, including scholarly works and theories. The rationale of the study is to determine the role determinants of capital structure played in determining financial performance. The literature under review was obtained from websites, journal articles, websites and published scholarly materials.

2.2 Theoretical Review

The theoretical review outlines the theoretical foundation of this study. A theoretical study is one with findings focused on existing theories and hypotheses, but with little practical application in research. Empirical research one that has findings based on experiments, observations, and experiences. This study employs theory, including capital structure theory, trade-off theory, pecking order theory, and empirical literatures

2.2.1 MM Capital Theory

Modigliani and Miller (MM), two professors in the 1950s, studied capital-structure theory intensely, and from their analysis, they developed the capital-structure irrelevance proposition (Miller, 1977). The two professors hypothesized that in perfect markets, the capital structure a firm uses to finance its operations never matters. They also theorized that the market value of a company is determined by its earning power and by the risk of its underlying assets, and that its value is independent of the way it chooses to finance its investments or distribute dividends. The basic M&M proposition is based on the following key assumptions, including no transaction costs, no taxes, no bankruptcy costs, and equivalence in borrowing costs for both companies and investors. It also assumes that symmetry of market information, that is, firms and investors have the same information, and the assumption that there is no effect of debt on a company's earnings before interest and taxes (Miller, 1977). Of course, in the real world, there are taxes, transaction

costs, and bankruptcy costs, differences in borrowing costs, information asymmetries and effects of debt on earnings.

In order to understand how the M&M proposition works after factoring in corporate taxes, however, researchers ought to first understand the basics of M&M propositions I and II without taxes. The M&M capital-structure irrelevance proposition assumes no taxes and no bankruptcy costs. In this simplified view, the weighted average cost of capital (WACC) should remain constant with changes in the company's capital structure. For example, no matter how the firm borrows, there will be no tax benefit from interest payments and thus no changes or benefits to the WACC. Additionally, since there are no changes or benefits from increases in debt, the capital structure does not influence a company's stock price, and the capital structure is therefore irrelevant to a company's stock price. However, as stated earlier, taxes and bankruptcy costs do significantly affect a company's stock price. In additional papers, Modigliani and Miller included both the effect of taxes and bankruptcy costs (Miller, 1977). Taxes significantly influence cash flow in a negative way because they tend to reduce the amount of a firm's cash flow. As more taxes are levied on a company, its cash flow reduces. Cash flow is a crucial determinant of a firm's capital structure, hence, this implies that a reduction in cash flow is likely to result in a poor financial performance of a company. The researcher deems this theory important in assessing the effect of cash flow on financial performance of banks listed at the NSE, Kenya.

2.2.2 Trade-off Theory

The trade-off theory of capital structure is the idea that a firm chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. The classical version of the hypothesis goes back to Kraus and Litzenberger (2011) who considered a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt. Often agency costs are also included in the balance. This theory is often set up as a competitor theory to the pecking order theory of capital structure.

An important purpose of the trade-off theory is to explain the fact that corporations usually are financed partly with debt and partly with equity. It posits that there is an advantage to financing with debt, the tax benefits of debt and there is a cost of financing with debt, the costs of financial

distress including bankruptcy costs of debt and non-bankruptcy costs such as staff leaving, suppliers demanding disadvantageous payment terms, bondholder/stockholder infighting, among others (Frank & Goyal, 2011). The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. As the Debt equity ratio (that is, leverage) increases, there is a trade-off between the interest tax shield and bankruptcy, causing an optimum capital structure, D/E^* . Financial leverage is measured by dividing the amount of debt financing by equity. It is a determinant of capital structure that is likely to influence the financial performance of a firm since high debts come with more cost of financing the debt, a cost of financial distress that may lead to poor performance. The researcher therefore deems the trade-off theory important in assessing the effect of financial leverage on financial performance of banks listed at the NSE, Kenya.

2.2.3 Pecking Order Theory

Pecking order theory starts with asymmetric information as managers know more about their companies' prospects, risks and value than the outside investors. Shareholders may not have this full knowledge within their reach. Asymmetric information affects the choice between internal and external financing and between the issue of debt or equity. There exists a pecking order for the financing of new projects (Matemilola & Bany-Ariffin, 2011).

Asymmetric information favours the issue of debt over equity as the issue of debt signals the board's confidence that an investment is profitable and that the current stock price is undervalued (were stock price over-valued, the issue of equity would be favoured). The issue of equity would signal a lack of confidence in the board and that they feel the share price is over-valued (Saeed, Gull & Rasheed, 2013). An issue of equity would therefore lead to a drop in share price. This does not however apply to high-tech industries where the issue of equity is preferable due to the high cost of debt issue as assets are intangible.

Tests of the pecking order theory have not been able to show that it is of first-order importance in determining a firm's capital structure. However, several authors have found that there are instances where it is a good approximation of reality. Fama and French (2002) established that

some features of the data are better explained by the Pecking Order than by the trade-off theory. Goyal and Frank (2012) hypothesized that among other things, Pecking Order theory fails where it should hold, that is, for small companies where information asymmetry is presumably an important problem. In this case, managers may benefit from the full knowledge information asymmetry and secure debts without the knowledge of the ordinary shareholders who exercise control of the company, in the sense when more equity goes towards capital financing than debt directors may lose confidence, specifically when stock prices are undervalued. When shares are undervalued they tend to attract more shareholders because they are cheap and this results in dilution of control of the firm. More profits are also appropriated to the shareholders in the form of dividends and fewer earnings are retained for the future operations. The researcher therefore deems pecking order theory ideal in assessing the influence of control on financial performance of banks listed at the NSE, Kenya.

2.3 Empirical Review

In addition to above, empirically literature there is no comprehensive study between determinants of capital structure and financial performance according to the knowledge researcher. However, size- performance and risk –performance are well investigated in previous studies. Few studies have highlighted the relationship between firm's characteristics and its profitability of the firm. The following section summarizes all available studies on some of the determinants of capital structure (cost of capital, financial leverage, cash flow, and control) and their influence on financial performance.

2.3.1 Cost of Capital

Magara (2012) did a study on capital structure and its determinants at the Nairobi Securities Exchange. The study sought to find out the major determinants of capital structure. It was established that from the period 2007 to 2011, there was a positive significant relationship between the cost of capital, firm size, tangibility and growth rate and the degree of leverage of the firm.

Ongore and Kusa (2013) cited cost of capital as a significant determinant of of financial performance of commercial banks in Kenya. Correia and Cramer (2008) conducted an analysis

of cost of capital, capital structure and capital budgeting practices: a survey of South African listed companies. The study employed a sample survey to determine and analyse the corporate finance practices of South African listed companies in relation to cost of capital, capital structure and capital budgeting decisions. The results of the survey were mostly in line with financial theory and were generally consistent with a number of other studies. Their study found that companies always or almost always employ DCF methods such as NPV and IRR to evaluate projects. Companies almost always use CAPM to determine the cost of equity and most companies employ either a strict or flexible target debt-equity ratio. Furthermore, the researchers found that most practices of the South African corporate sector are in line with practices employed by US companies.

2.3.2 Financial Leverage

The tradeoff theory suggests that firms can determine their optimal capital structure by striking a balance between the benefits and costs related with debt financing. According to Suka (2012), firms set a target debt to value ratio and steadily adjust towards the target ratio to balance the tradeoff between tax savings and bankruptcy cost. The purpose of the trade-off theory of capital structure is to explain the strategy a firm uses to finance investments which may be by equity and sometimes by debt, it was concluded that trade-off theory could not account for the correlation between high profitability and low debt ratios. Levels of capital mix are liable to increase the cost of debt and the chance of default, bankruptcy and eventually liquidation of a firm (Altan, Yusufazari & Beduk, 2014).

Though most studies assume that bankruptcy costs of firms exist, yet it is commonly believed that such costs are negligible and the benefits of tax saving outweigh the bankruptcy costs. Miller (1977) argued that it does not matter how a firm finances its' operations and that the value of a firm is independent of its capital structure, making capital structure irrelevance. This suggests that more profitable firms need to shelter their earnings and save taxes by opting for higher leverage in their capital structure. It was found out that firm's performance and high debt level are positively associated, a hypothesis that is supported by Nyanga (2012). However, the static trade off theory is applicable only to one time period trade-off between tax saving against the deadweight cost of bankruptcy. In practice firms operate for a long period of time, therefore

dynamic trade off theories are more relevant to the real world in explaining the relationship between firm's performance and leverage. The focal point of these theories is that firms pursue an optimal debt ratio and any deviations resulting from random shocks are adjusted without any time lag and transaction costs. This proposition supports the view that firms would maintain high levels of debt to avail the tax saving benefit (Seelanatha, 2010). However, the assumption that firms rebalance debt ratios swiftly without any transactions cost is being questioned. It is argued that since readjustment of debt ratios involve transaction costs, firms may take time to rebalance. Rather they may let their capital structure to deviate from the optimal capital structure and will rebalance only at the upper and lower limits.

Empirically, studies reporting a negative relation between firm's performance and capital structure seem to be consistent with the predictions of pecking order theory in contrast to the trade-off theory. However, this seems to be too simple a view of the relationship between firm's performance and its capital structure. In practice, it is observed that profitable firms tend to retire their debt and maintain leverage close to the lower end, whereas loss making firms are found to have higher debt level and are close to the higher limit of debt ratio (Olalekan & Adeyinka, 2013). This indicates that profitability may also reflect the growth aspect of firms. Thus, in contrast to the static trade off theory the dynamic trade off theories suggests that firm performance and leverage may be negatively related, implying that trade off theory is ambiguous on profit and debt to equity relation (Onaolapo & Kajola, 2010). Accordingly, profitable firms are likely to use retained earnings and make less use of debt relative to less profitable firms. It implies firm's performance and debt are expected to be negatively associated.

2.3.3 Cash Flow

Mwangi (2010) did a study on capital structure on firms listed at the Nairobi Stock Exchange also tried to look on the relationship between capital structure and financial performance. Data was collected using structured questionnaires. The study identified that a strong positive relationship between leverage and cash flow, return on equity, liquidity, and return on investment existed

According to Hamidreza, Fatemeh &, Hamid (2014), who examined the effect of cash flow on capital structure of firm and finance through debit and capital in future. In order to meet this goal, the researchers applied a multi variable regression statistical method and their research was carried out from 2006 until 2010 at Tehran stock exchange. In the way of carrying out their research the information related to dependent variable, independent variable and control variable through Tadbirpardaz database and Rahavard Novin database and through website and library affiliated to stock exchange organization and the sample was collected among 415 firms. Results of their study findings revealed that as it was expected there is significant relationship between operational cash flow with external financing, finance through stock, finance through debit for the firm listed at Tehran stock exchange.

2.3.4 Control

According to Ajibolade & Sankay (2013), the fear for dilution of control and ownership compels companies to adopt preference shares or debt financing. However, this hypothesis is not supported by some studies, which to them the benefits of debt financing are less than its negative aspects, so firms will always prefer to fund investments by internal sources (Olalekan & Adeyinka, 2013). Cooper and Schindler (2014) also found a significant and negative effect of capital structure on performance.

Roberts & Amir (2007) conducted a study on Control Rights and Capital Structure: An Empirical Investigation. The researchers showed that creditors, who use the transfer of control rights accompanying financial covenant violations to address incentive conflicts between managers and investors, dictate a large number of financing decisions of solvent firms. After showing that financial covenant violations occur among almost one third of all publicly listed firms, the researchers found that creditors use the threat of accelerating the loan to reduce net debt issuing activity by over 2% of assets per annum immediately following a covenant violation. Further, this decline is persistent in that net debt issuing activity fails to return to pre-violation levels even after two years, resulting in a gradual decline in leverage of almost 3%. These findings represented the first, of which the researchers were aware, piece of empirical evidence highlighting the role of control rights in shaping corporate financial policies outside of bankruptcy.

2.4 Research Gap and Literature Summary

The review of the literature above has ascertained that there exists many knowledge gaps with respect to the capital structure and financial performance of NSE listed firms, particularly the commercial banks in Kenya. The reason for this is that most of the reviews of the literature are empirical researches done on determinants of profitability and financial performance of non-African and specifically non-Kenyan banks. Most of the studies conducted concentrated on more developed economies such as South Africa and Nigeria. In addition, the literature review shows the existence of non-conclusive studies with varying results on the determinants of capital structure. There exists a small number of studies done to investigate the capital structure and financial performance in commercial banks in Kenya. This has left a significant knowledge gap of available materials to refer and provide secondary data for comparison purposes. Limited research in this area fail to fully provide explanations of the effects of the determinants of capital structure (cost of capital, financial leverage, cash flow, and control) and their relationship with the financial performance of commercial banks. Additional research is required to explain the relationship between control as a determinant of capital structure and its influence on financial performance of commercial banks in Kenya since it is not significant ($p\text{-value} = 0.73$) in the current study.

In comparison to the trade-off theory, the pecking order theory argues that pecking order behaviour is adopted when firms prefer to avoid costs related to adverse selection and agency cost issues. In other words, firms in the first place prefer to opt for internal source of retained earnings; if at all it has to opt for external funds it prefers debt to equity (Altan, Yusufazari & Beduk, 2014). In addition, the issuance equity imply involving external investors in the ownership structure, therefore when a firm issues new shares investors may believe the firm is overvalued and the managers may take advantage of this asymmetric information as he knows better about the firm's risk level than the investors (Seelanatha, 2010). Thus, according to the pecking order theory the primary concern of a firm is to raise capital through retained earnings while tradeoff between firm's bankruptcy cost and tax shield of debt is a secondary issue. Accordingly, profitable firms are likely to use retained earnings and make less use of debt relative to less profitable firms. It implies firm's performance and debt are expected to be negatively associated. This hypothesis is also supported by a number of studies, to them the

benefits of debt financing are less than its negative aspects, so firms will always prefer to fund investments by internal sources (Olalekan & Adeyinka, 2013). Cooper and Schindler (2014) also found a significant and negative effect of capital structure on performance.

Although literature on capital structure theories and empirical evidence on the determinants of capital structure is abundant in case of developed countries, however except a few studies, the question whether capital structure of large firms influence their performance remains largely unexplored in developing countries. One such study testing the hypothesis that capital structure is one of the main determinants of firm performance explains that the tax benefit of debt financing lead firms to borrow excessively (Ongore & Kusa, 2013). In doing so firms very often ignore the bankruptcy costs stemming from declining returns to excessive debt. Therefore, profit maximizing firms when diverge from an appropriate capital structure their bankruptcy or financing costs outweigh the tax benefits related with the tradeoff between debt and equity. Nyanga (2012) finds that capital structure has a significant and negative effect on firm's performance and underestimation of bankruptcy costs may lead firms to borrow excessively and carry high debt in their capital structure. However, others find mixed results regarding the effect of capital structure on firm's performance.

Magara (2012) did a study on capital structure and its determinants at the Nairobi Securities Exchange. The study sought to find out the major determinants of capital structure. It was established that from the period 2007 to 2011, there was a positive significant relationship between the firm size, tangibility and growth rate and the degree of leverage of the firm. The study did not take into consideration macro- economic factors like inflation and interest rates.

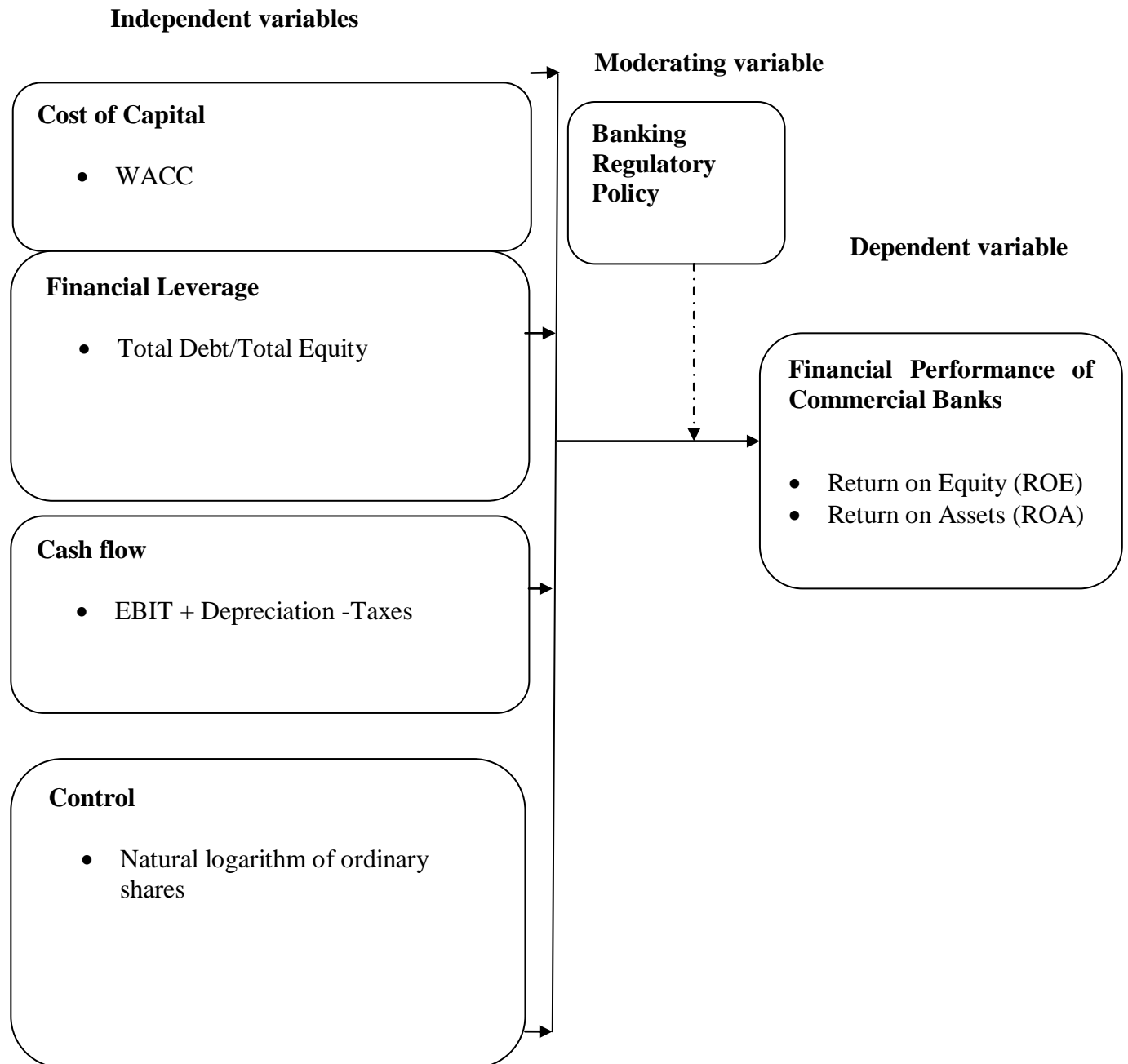
Mwangi (2010) did a study on capital structure on firms listed at the Nairobi Stock Exchange also tried to look on the relationship between capital structure and financial performance. Data was collected using structured questionnaires. The study identified that a strong positive relationship between leverage and return on equity, liquidity, and return on investment existed.

2.5 Conceptual Framework

After careful study of literature review, the following conceptual model is formulated to determine effect of capital structure on financial performance of the NSE listed banks in Kenya.

The conceptual framework shows the firm determinants of capital structure (independent variable) and financial performance of the firm (ROA) as dependent variable. In the researcher's thinking, the independent variable that may have significant impact on performance of the NSE listed banks in Kenya namely, cost of capital, firm leverage, cash flow, and control. Return on Assets (ROA) measures financial performance of a firm. Although there is no unique measurement of firm performance in the literature, ROA was chosen because it is important accounting – based and widely accepted measure of financial performance. ROA can also be viewed as a measure of management's efficiency in utilizing all the assets under its control, regardless of source of financing

Fig. 2.5.1 Conceptual Model



Source: (Author, 2016)

Cost of capital is the charges involved in obtaining debt or equity financing. In this study, it will be measured by WACC. Control on the other hand is the extent of powers of the shareholders of the NSE listed companies to make decision and to influence voting during annual general meetings (Onaolapo & Kajola, 2010). This is based on the number of ordinary shares they hold. In this study, it will be measured by natural logarithm of ordinary shares.

Cash flow is the amount of money the NSE listed companies transfer in and out of their businesses, thus affecting liquidity (Suka, 2012). In this study, it will be measured by EBIT add depreciation less taxes. Whereas financial Leverage refers to how the NSE listed companies use debts to acquire additional assets. In this study, it will be measured by Total debt divided by total equity.

Financial Performance refers to the accomplishment of the NSE listed firms, specifically banks system's task measured against preset known standards of accuracy, completeness, cost, and speed (Saeed, Gull & Rasheed, 2013). The banking sector targets the improvement of financial performance. Financial performance is a measure of the bank's policies and operations in monetary terms. In this study, it will be measured by return on equity (ROE) and return on assets (ROA).

CHAPTER THREE

RESEARCH MEHODOLOGY

3.1 Introduction

This chapter examines the methods that was employed to survey the determinants of capital structure and its impact on financial performances on the NSE listed banks in Kenya. This chapter is structured into research design, population of study, data collection and data analysis.

3.2 Research Design

This study used descriptive research design. According to Mugenda and Mugenda (2003) a descriptive research design is a systematic, empirical inquiring into which the researcher does not have a direct control of independent variable as their manifestation has already occurred or because the inherently cannot be manipulated. Descriptive studies are concerned with the what, where and how of a phenomenon hence more placed to build a profile on that phenomenon (Mugenda & Mugenda, 2003). Descriptive research design was more appropriate because the study sought to build a profile about determinants of capital structure and its impact on financial performance. Magara (2012) conducted a study on capital structure and its determinants at the Nairobi Securities Exchange using the same research design but a different growth model.

3.3 Target Population

All the NSE listed banks were included in the sample frame if they had five years annual report. Ngechu (2004) hypothesized that a population refers to the total collection of elements about which the researcher intends to make inferences. The target population for this study included eleven commercial banks listed at the NSE, Kenya (see Appendix I).

3.4 Data Collection

Document review was used for collecting data from 2011-2015 annual reports. Secondary sources of data were used in this study to make sure that it is accurate and reliable. The required data were collected by review of documents, the Nairobi Securities Exchange handbooks, annual

reports of the companies, and published books of accounts. Secondary data collected were be in soft copy and as such the accuracy of information was high. This collection procedure was used because it was cost effective, reliable and valid. Data collected were calculated using excel and analysed using the statistical package for the social sciences (SPSS version 21) software.

3.5. Data Collection Instrument

The study used secondary data in the study. Data collection guide and work plans have been drawn to give data type, measurement, and time period of data relevant for the study (see appendix ii). The annual financial data was collected from the NSE, and financial reviews and annual reports and statement of accounts and covered a period of 5 years (2011-2015).The study collected a total 25 parameters for all the variables analyzed. The instrument is appropriate since the research was descriptive in nature.

3.6. Piloting

The wording of the data collection instrument was of paramount importance and that pre-testing is crucial to its success. A pilot has various functions, mainly to increase reliability, validity and practicability of the data collection instrument (Mugenda & Mugenda, 2003). The research instrument was piloted in a public company that is not part of the sample, but is similar to the sample. Simple random sampling technique was used that is similar to the actual sample used in this study.

3.7. Reliability and Validity Test

Reliability is the ability of an instrument to remain consistent in its measurement over a time period on different situations (Saunders, Lewis & Thornhill, 2009). It implies that when a researcher is to conduct several times, his or her scores should remain relatively consistent with only some slight deviation. Therefore, an instrument can sometimes be reliable, however, it cannot be valid when it is not reliable (Cooper & Schindler, 2014). The reliability of this study survey instrument was assessed using Cronbach's Alpha. The approach made it possible to measure overall reliability as well as consistency of the scales of the research instrument. The results obtained were $\alpha = 0.823$ for cost of capital, $\alpha = 0.812$ for financial leverage, $\alpha = 0.746$ for

cash flow, and $\alpha = 0.924$ for control, which sufficiently confirm data reliability of independent variables. The score are sufficient since they have values above the 0.60 minimum levels acceptable for a coefficient of alpha (Cooper & Schindler, 2014).

Validity is the degree to which a test measures what it purports to do. Content validity is used to validate the content used in the instrument, which the expertise of the supervisor seeks. According to Mugenda and Mugenda (2003), the pilot study helps to improve validity. These authors further reaffirmed that reliability is a measure of consistency over time, over instruments and over similar samples. It is concerned with precision and accuracy.

3.8. Data Analysis and Presentation

The process of data analysis started after completing data collection and it ended at the point of interpretation and processing data (Saunders, Lewis & Thornhill, 2009). The researcher edited them to ensure their completeness and consistency. Coding and classification then followed to ensure sufficient analysis. Data were analysed using descriptive statistics (mean and standard deviation) and multiple regression analysis and statistical package for social scientists (SPSS) computer software (version 20) was used to analyse data. The researcher used the probability value (p-value) of a statistical hypothesis test to analyse the test statistic value. The p-value greater than 0.05 implied accepting the null hypothesis H_0 as true while rejecting the alternative hypothesis H_1 as false. The findings were presented in the ANOVA table.

This study used a multivariate statistical model in establishing the effect between the variables. It was aimed at determining the influence capital structure and its impact on financial performance in Kenya. Determinants were captured through working average cost of capital, financial leverage, cash flow, and control. A multiple regression model was applied in this study. Saunders, Lewis and Thornhill (2009) hypothesized that a multiple regression model allows simultaneous investigation of the effect of two or more variables. The model was used to establish the relationship between the determinants of capital structure on financial performance of NSE listed banks in Kenya. The determinants of capital structure employed in this study constituted four variables including cost of capital, financial leverage, cash flow, and control as identified in the literature review section.

The financial performance was measured as indicated below

$$\text{Financial Performance (Y}_{it}) = \text{ROE; ROA} \dots\dots\dots 1$$

Hence, the following regression models were estimated as follows

$$\text{ROE} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon \dots\dots\dots 2$$

$$\text{ROA} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon \dots\dots\dots 3$$

Where:

i= represent the bank

t= time period in years

Y_{it} represent financial performance of the NSE listed banks

X_{1it} represents cost of capital (measured by WACC)

X_{2it} represents financial leverage measured by debt-to-equity ratio (Total debt / Total Equity)

X_{3it} represents cash flow (EBIT+ Depreciation-Taxes) for the period t

X_{4it} represents control (measured by natural logarithm of ordinary shares) for the period t

α: represents a Constant that defines the financial performance without inclusion of independent variables i.e. the value of Y when the value of X is zero

B_i' is Coefficients of variable i which measures the extent to which the variation in Y is explained by the variations in X

ε = is the error term of the test equation

3.9 Ethical Consideration

Mugenda & Mugenda (2003) indicates that ethics is that branch of philosophy, which deals with

one's conduct and serves as a guide to one's behaviour. Ethics refers to the appropriateness of a person's behaviour in relation to the rights of those who become the subjects of one's work or who are affected by it (Saunders et al., 2012). Research Ethics relate to questions about how the researchers formulate and clarify our research topic, design research and gain access, collect data, process store, analyze data, and write up their research findings in a moral and responsible way (Sekeram & Bougie, 2010).

The research was conducted with integrity and neither was it undertaken for personal gain nor to cause harm on the respondents. The research had no negative effects on the respondents. The researcher neither abused the trust of the subjects by using the data collected to get somebody into trouble nor stigmatized them. Confidentiality and privacy were guaranteed and the consent of the respondents was sought before revealing any information. The researcher provided the respondents with consent forms, which were read and signed by the participants, before a witness, for consenting to take part in the study.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This study sought to investigate the extent to which capital structure influences the financial performance of companies listed at the Nairobi Securities Exchange, with specific references to commercial banks in Kenya. The study made use of various statistical tools of analysis to analyse the effect of capital structure on financial performance. It also adopted constructs from the existing literatures, which guided the study. Secondary data were generated from a five year (2011-2015) audited and published financial records and annual reports. Descriptive statistics as well as multiple measures have been generated from statistical packages for social scientists (SPSS version 20).

4.2. Descriptive Analysis

The study sought to investigate firms' specific factors, including cost of capital, firm leverage, cash flow, and control and their effects on financial performance of NSE listed commercial banks in Kenya. The researcher adopted descriptive research design to achieve this aim. A document review was conducted to gather secondary data from eleven commercial banks listed at the NSE, covering a five-year (2011-15) financial report. The following table 4.1 provides a summary of the descriptive statistics of the study variables. Cost of capital has the highest mean of 0.132, followed by financial leverage 0.129, cash flow 0.105, and finally control 0.086. The mean for the dependent variable ROA stands at 0.12, that is, the average return on assets for the 11 banks in a time period of five years (2011-2015). The corresponding standard deviation was significantly low for cost of capital (1.47) and financial leverage (1.36), thus a clear indication that their data were concentrated close to the mean. Cash flow and control had higher standard deviation of 0.154 and 0.158, and thereby indicating that the data was far spread apart from the mean. ROA had the lowest standard deviation of 0.056 and therefore a clear indication it has its data closely spread towards the mean.

The study results established that cost of capital has the highest influence on financial performance, followed by cash flow, financial leverage, and control. The variables have significant statistical means, an indication that they significantly affect financial performance. The results agree with the findings obtained by Magara (2012) that there was a positive significant relationship between the cost of capital, firm size, tangibility and growth rate and the degree of leverage of the firm. The findings are also in conformity with those of Mwangi (2010), which established that a strong positive relationship exists between leverage and cash flow, return on equity, liquidity, and return on investment. The results support those of Ongore and Kusa (2013) that cost of capital as a significant determinant of financial performance of commercial banks in Kenya. However, this study discredits Cooper and Schindler (2014) that negative effect exists between capital structure and financial performance.

Table 4.1 Descriptive Statistics

	Mean		Std. Deviation
	Statistic	Std. Error	Statistic
Cost of Capital	.132	.020	.147
Financial leverage	.129	.012	.136
Cash flow	.105	.037	.154
Control	.086	.038	.158
ROA	.012	.008	.056

Source: Research Data (2016)

4.3 Reliability and Validity of Data

In order to test data reliability, the researcher adopted a Cronbach's alpha or the co-efficient of alpha to measure internal reliability. The tool was deemed appropriate as a variance measure of all subjects and variances related to interactions between subjects and items. The following results in table 4.2 present the scores obtained from testing of Cronbach's alphas.

Table 4.2: Reliability Statistics

Variable	Cronbach's Alpha	Number of items
Cost of Capital	.823	9
Financial Leverage	.812	8
Cash flow	.746	8
Control	.924	7

The scores shown 4.2; cost of capital $\alpha = 0.823$, financial leverage $\alpha = 0.812$, cash flow $\alpha = 0.746$, and control $\alpha = 0.924$ sufficiently confirm data reliability of independent variables. The score are sufficient since they have values above the 0.60 minimum level acceptable for a coefficient of alpha (Cooper & Schindler, 2014).

Validity of this research instrument were tested to show whether the instrument measured what it was supposed to measure. One of the ways used to achieve face and content validity was by adopting research instrument employed by researchers (Mugenda & Mugenda, 2003). Due to variations in socio-economic context, the researcher modified the instrument and sent to experts in both academia and banking industry for vetting. The academician expertise constituted of individuals who are versed with financial matters and survey design. The research supervisor guided the researcher in designing the data collection form. The comments consisted of the instrument ability to collect the necessary data and its ability to answer research questions, whether the questions presented a good measure of constructs, and whether something else could be added to the survey to get the necessary data. Experts from the banking industry and Nairobi Securities Exchange (NSE) reviewed the questions. The data collection form was used in a pilot and feedback gathered from the targeted respondents were employed to refine the instrument for the main study.

4.4 Multiple Regression Analysis

The study adopted a multiple regression analysis to establish the strength as well as the direction of cost of capital, financial leverage, cash flow, and control on financial performance of commercial banks listed at the Nairobi Securities Exchange. The model summary table 4.3 provides a correlation co-efficient (R) of 0.606, co-efficient of determination (R^2) of 0.819 (81.9%), adjusted co-efficient of determination (adjusted R^2) of 0.742 (74.2%), and standard error estimate of 0.046. The low standard error estimate of 0.046 implied a higher significance of the study variables.

Table 4.3: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	.606 ^a	.819	.742	.046

Predictors: (Constant), cost of capital, Financial leverage, cash flow, and control

$\alpha = 0.05$

Source: Research Findings (2016)

Correlation co-efficient (R) reveals the relationship among the study variables, revealing a strong positive relationship of 0.606 among the study variables. The R-squared, also referred to as the co-efficient of determination, explains the variation in the dependent variables that the independent variables cause. R-squared is used to measure the performance of model regression against known observations, and thereby providing a high correlation of 81.9% between the determinants of capital structure (cost of capital, financial leverage, cash flow, and control) and financial performance (ROA).

Adjusted R^2 shows how well the terms fit in a line or curve, however, it adjusts the number of terms within the model. The adjusted r-squared decreases when the researcher adds more useless or more terms to the model. Whereas r-squared assumes that every single variable used in the study provides an explanation to the variation in the dependent variable (ROA), the adjusted r-squared presents the percentage of variation explained by only the independent variables which actually influence the dependent variable. The study results presented in table 4.3 indicate the adjusted R-squared value as 0.742, implying a 74.2% financial performance of commercial banks listed at NSE have a positive relationship with cost of capital, financial leverage, cash flow, and control at 95% confidence interval.

Table 4.4: ANOVA

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.002	3	.003	.0282	.002 ^b
	Residual	.147	38	.005		
	Total	.149	41			

a. Dependent Variable: ROA

b. Predictors: (Constant), cost of capital, financial leverage, cash flow, and control

The researcher used the probability value (p-value) of a statistical hypothesis test to analyse the test statistic value. The p-value greater than 0.05 implies accepting the null hypothesis H_0 as true while rejecting the alternative hypothesis H_1 as false. The low F-value of 0.028 shows that there is a low variability between the variables used in this study. It is also low enough to reject the null hypothesis (that there is no correlation between determinants of capital structure and financial performance) using a significance level of 0.05. The findings of this study presented by the ANOVA table 4.4 also shows that there is a positive relationship between capital structure and financial performance of commercial banks listed at the NSE because the significance (p-

value) of 0.02 that is less than 0.05. The alternative hypothesis is therefore accepted because the p-value is less than 0.05.

4.5 Regression Coefficients

Table 4.5: Regression Coefficients

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.(p-value)	Interpretation
	B	Std. Error	Beta			
(Constant)	0.04	.017		.0187	.044	
X ₁	1.524	.026	.048	.0203	.028	Significant
X ₂	1.208	.002	.113	.0305	.025	Significant
X ₃	1.118	.001	.024	.0144	.034	Significant
X ₄	1.014	.001	.018	.0182	.073	Not Significant

a. Dependent Variable: ROA

Level of Significance (α) = 0.05

Source: Research Data (2016)

The study findings, with a constant of 0.004, showed that if the a unit measure of cost of capital, financial leverage, cash flow, and control, then financial performance of commercial banks listed at NSE can be presented as 0.004. X₁= 1.524 shows a unit change in cost of capital leading to 1.524 units increase in financial performance. X₂= 1.208 shows a unit change in financial

leverage leading to 1.208 increase in financial performance. $X_3 = 1.118$ shows a unit change in cash flow leading to 1.118 increase in financial performance; and $X_4 = 1.014$ shows a unit change in control leading to 1.014 increase in financial performance. The independent variable of control factor is not significant to this study because it has a p-value (0.073) greater than 0.05.

The t-value was used in this study to measure the size of the difference relative to the variation in the research sample data. T-value was the calculated difference represented in units of standard error. T-values presented in table 4.5 for cost of capital (0.0203), financial leverage (0.0305), cash flow (0.0144), and control (0.0182). The T-values are closer to zero (0), and thus providing a strong evidence against the null hypothesis that there is no significant difference among the study variables. The t-values are low enough, in fact lower than the significance value (p-value) of 0.05 to support the rejection of the null hypothesis. Cost of capital has a p-value of 0.028 which is lower than the significance (p-value) of 0.05, likewise to financial leverage of 0.025, and cash flow of 0.034. However, control has a p-value of 0.073 that is higher than the p-value of 0.05, and therefore providing a strong evidence that it is not significant to this study.

4.6 Summary of Key Findings and Discussions

The study adopted a multivariate model to establish the relationship between cost of capital, financial leverage, cash flow, and control and the financial performance of commercial banks listed at the Nairobi Stock exchange. The results obtained by this study showed that these determinants of capital structure positively influence the financial performance of these banks. Similar findings were obtained by descriptive statistical analysis of the variables used in this study. The table 4.1 provided a summary of the descriptive statistics of the study variables. Cost of capital has the highest mean of 0.132, followed by financial leverage 0.129, cash flow 0.105, and finally control 0.086. The mean for the dependent variable ROA stands at 0.12, that is, the average return on assets for the 11 banks in a time period of five years (2011-2015). The corresponding standard deviation was significantly low for cost of capital (1.47) and financial leverage (1.36), thus a clear indication that their data were concentrated close to the mean. Cash flow and control had higher standard deviation of 0.154 and 0.158, and thereby indicating that the data was far spread apart from the mean.

A multiple regression analysis presented a co-efficient of determination (R-square), explaining the variation which changes in the independent variables cause on the dependent variable. The multiple regression analysis also provided the correlation co-efficient (R), indicating the association of variables, which established a strong positive relationship of 0.606 and a high co-efficient of determination (R^2) of 0.819 (81.9%). The results presented in table 4.3 indicate a high adjusted R-squared value 0.742, implying that a 74.2% financial performance of commercial banks listed at the Nairobi Securities Exchange were obtained from a positive unit increase in cost of capital, financial leverage, cash flow, and control at 95% confidence interval. The study findings revealed a low F-value of 0.028 shows that there is a low variability between the variables used in this study. It is also low enough to reject the null hypothesis (that there is no correlation between determinants of capital structure and financial performance) using a significance level of 0.05. The analysis of variance presented by ANOVA in table 4.4 ascertained that a positive relationship exists between capital structure and financial performance of the commercial banks listed at the Nairobi Securities Exchange, since the calculated p-value of 0.002 is less than 0.005.

The regression co-efficient (table 4.5) shows a constant value of 0.004, showing that a positive a unit measure of cost of capital, financial leverage, cash flow, and control, implies that the financial performance of commercial banks listed at the Nairobi Securities Exchange is 0.004. $X_1= 1.524$ shows a unit change in cost of capital leading to 1.524 units increase in financial performance. $X_2= 1.208$ shows a unit change in financial leverage leading to 1.208 increase in financial performance. $X_3= 1.118$ shows a unit change in cash flow leading to 1.118 increase in financial performance. $X_4= 1.014$ shows a unit change in control leading to 1.014 increase in financial performance.

The results reveal that cost of capital is a leading determinant since it has the highest Beta coefficient of 1.524, this is followed by financial leverage ($\beta= 1.208$), cash flow ($\beta = 1.118$), and

control ($\beta = 0.014$). The independent variable of control factor is not significant to this study because it has a calculated p-value of 0.073, which is greater than 0.05. The currently study findings confirm the empirical literature review of a study by Mwangi (2010), which established that a strong positive relationship exists between leverage and cash flow, return on equity, liquidity, and return on investment. However, the study findings does not support that empirical literature of the study by Cooper and Schindler (2014) that negative effect exists between capital structure and financial performance. The results also confirm the pecking order theory that the marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing (Frank and Goyal, 2011). T-value was the calculated difference represented in units of standard error. T-values presented in table 4.5 for cost of capital (0.0203), financial leverage (0.0305), cash flow (0.0144), and control (0.0182). The T-values are closer to zero (0), and thus providing a strong evidence against the null hypothesis that there is no significant difference among the study variables. The t-values are low enough, in fact lower than the significance value (p-value) of 0.05 to support the rejection of the null hypothesis. Cost of capital has a p-value of 0.028 which is lower than the significance (p-value) of 0.05, likewise to financial leverage of 0.025, and cash flow of 0.034. However, control has a value of 0.073 that is higher than the p-value of 0.05, and therefore providing a strong evidence that it is not significant to this study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

The following chapter provides the summary and conclusions of the study findings from chapter four. The chapter gives implications of the study in the form of recommendations. It also provides limitations and suggested areas for further research.

5.2 Summary

The study sought to establish the effect of capital structure on financial performance of companies listed at the Nairobi Securities Exchange, using the eleven listed commercial banks as a case study. The study made use of various statistical tools of analysis to analyse the effect of capital structure on financial performance. It also adopted constructs from the existing literatures, which guided the study. Secondary data were generated from a five year (2011-2015) audited and published financial records and annual reports. Descriptive statistics as well as multiple measures have been generated from statistical packages for social scientists (SPSS version 20).

Data sources were gathered from the Central Bank of Kenya financial data and audited reports and published annual reports the eleven commercial banks listed at the NSE. Data were gathered to analyse the study variables: cost of capital, financial leverage, cash flow and control, Return on Assets (ROA). Descriptive statistics and multiple regression analysis tools provided a summary and fundamental basis of quantitative data.

The study established a positive relationship between capital structure and financial performance. Cost of capital was a key determinant of capital structure, which highly influenced financial performance. The other three independent variables: financial leverage, cash flow, and control also showed significant effect on the financial performance of these commercial banks listed at the Nairobi Securities Exchange (NSE), Kenya. This study supports a study by Mwangi (2010), which established that a strong positive relationship exists between leverage and cash flow, return on equity, liquidity, and return on investment. However, the study findings disagree with the empirical literature of the study by Cooper and Schindler (2014) that negative effect exists

between capital structure and financial performance. However, the independent variable of control factor was not significant to this study because its p-value (0.073) was greater than 0.05, and thereby giving room for further research.

5.3 Conclusions

The conclusion of this study was drawn, bearing in mind the aim to establish whether or not capital structure influence financial performance of commercial banks listed at the Nairobi Securities Exchange. This aim was achieved by adopting a descriptive statistical analysis and a multivariate model for computing financial performance (ROA), putting into account the independent variables: cost of capital, financial leverage, cash flow, and control. The effects of these independent variables on the dependent variables were analysed by the statistical tools of analysis cited above. These study findings of this study, ascertained by statistical significance, ascertained that increasing unit levels of cost of capital, financial leverage, cash flow, and control have positive effect on the financial performance of firms listed at the Nairobi Securities Exchange, Nairobi.

5.4 Recommendations

This section provides a discussion of the recommendations for practice and policy. It outlines the implication on policy, theory, and practice. This study, therefore, recommends that commercial banks listed at the Nairobi Securities Exchange need to review their capital structures so that they can realise better financial performance. This study provides a basis for enhancing a strong capital structure. The findings of this study may guide the building of strong capital structure, specifically on cost of capital, financial leverage, cash flow, and control. In lieu of these determinants of capital structure, this study offers a basis to improving financial performance. The current study have fulfilled the gap on the existence of a small number of studies done to investigate the capital structure and financial performance in commercial banks in Kenya. This significant knowledge gap has been fulfilled by availing this document to refer and obtain secondary data for comparison purposes. The research has fully provided explanations of the effects of the determinants of capital structure (cost of capital, financial leverage, cash flow, and control) and their relationship with the financial performance of commercial banks in Kenya.

The results gathered from this study confirm the pecking order theory that the marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing (Frank and Goyal, 2011). The trade-off theory is important in understanding capital structure and its effect on financial performance. Other theories which guided this study included MM Capital Theory and Pecking order theory. The findings of this study may provide a guide for researchers of accounting and finance to advance these three theories.

The findings of this study may act as a guide for commercial banks to enhance their capital structure for better financial performance. The banks can use this knowledge to understand what constitutes a sound capital structure to improve their financial performance. In addition, they may be in a better position to find new ways of strengthening their weak financial structures.

5.5 Limitations

The study adopted a case study limited to only the eleven commercial banks listed at Nairobi Securities Exchange, and this was likely to influence data collection and interpretation, to some extent. The researcher collected data from only these eleven banks, and thereby not considering other commercial banks. The researcher, therefore, failed to consider the opinions of these other commercial banks, and that might influence the outcome and policy implication to the entire banking industry. The study mainly focused on the banking industry, and thereby failing to consider the capital structure and financial performance of other industries. In addition, the independent variable of control proved insignificant to this study since it yielded a p-value, of 0.073, which is greater than 0.05. The control variable was not significant in explaining financial performance (Y).

5.6 Areas for Further Research

The limitation on adopting only the eleven commercial banks listed at the NSE should be addressed by conducting further research on other commercial banks not listed in the Nairobi Securities Exchange. This approach may help in gathering different opinions concerning whether capital structure influences financial performance of commercial banks. A further study should

extend beyond the banking industry to understand whether capital structure influences financial performance of other industries. Further studies should also be carried out to determine whether control, as a factor of capital structure, influences financial performance of commercial banks listed at the Nairobi Securities Exchange.

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APPENDICES

Appendix I: NSE Listed Banks

- I. Equity Bank
- II. Kenya Commercial Bank
- III. Cooperative Bank
- IV. Barclays Bank
- V. Standard Chartered Bank
- VI. Diamond Trust Bank Kenya
- VII. NIC Bank
- VIII. CFC Stanbic
- IX. Housing Finance
- X. National Bank
- XI. NIC Bank Group

Source: NSE data, 2016

APPENDIX II: DATA COLLECTION FORM

YEAR	Cost of Capital (WACC)	Financial Leverage (Total Debt/Total Equity)	Cash flow (EBIT+ Depreciation -Taxes)	Control (natural logarithm of ordinary shares)	Financial Performance (ROA)
2011					
2012					
2013					
2014					
2015					