

**EFFECTS OF CAPITAL STRUCTURE ON FINANCIAL  
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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## **DECLARATION**

This research project report is my original work and has never been submitted for a degree or any other award in any other university.

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## **DEDICATION**

I dedicate this work to my lovely mum Mrs. Priscillah Samuel, my daughter Victoria and my son Vincent. They have been my biggest inspiration, their undying support and encouragement helped me realize my academic pursuit of an MBA.

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## DEFINITION OF TERMS

|                          |   |
|--------------------------|---|
| <b>EBIT</b>              | – Earnings Before Interests and Taxes, (Nirajini, 2013).  |
| <b>Residual claim</b>    | – Claim last on profits, claim last on assets, (Myers, 2001).   |
| <b>Liquidation</b> –     | Closure of a firm where properties are converted to cash,<br>(Baker & Wurgler, 2002)  |
| <b>Preference shares</b> | – The investor of this shares has a greater claim on the company's assets than common stockholder<br>(Graham & Harvey, 2001).   |
| <b>Ordinary shares</b>   | – Ownership of a limited company, Margaritis & Psillaki (2010).   |
| <b>Retained earnings</b> | - Percentage of net earnings not paid out as dividends, but retained by the company to be reinvested in its core business, or to pay debt, (Amidu, 2007)  |
| <b>Gearing</b>           | - The act of borrowing money at fixed interest which is then used to produce more money than the interest paid. It's also a measure of a company's financial leverage and shows the extent to which its operations are funded by lenders versus shareholders, (Akerlof, 1970) |
| <b>The gearing ratio</b> | - Measures the proportion of a company's borrowed funds to its equity, (Nirajini, 2013).  |

**Financial leverage** - According to financial leverage is the proportion of capital that is financed by debt as opposed to own equity, (Ward and Price, 2006).

**Equity** -It is the total assets minus total liabilities thus the networth(Stephen,2001)

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

**Capital structure** –It is the way a firm finances its sources of funds for investment mostly through assets by use of debt and equity combination (Saad, 2010).

According to Ahmadpour and Yahyazadehfar, (2010) Capital Structure is combination of debt and equity that makes up the sources of corporate assets.

**Capital Reserves** - It is raised by selling shares at a premium or through revaluation of the company's assets, (Sulaiman, 2001)

**Revenue Reserves** - They are undistributed earnings which are retained to make up for the fall in profits so as to sustain acceptable risks and to sustain growth through plough backs, (Barton, Hill, & Srinivasan, 1989)

**Receivership /liquidation** – It is a remedy available to secured creditors to recover amounts outstanding under a secured loan in the event the company defaults on its loan payments. A Receiver may also be appointed in a shareholder dispute to complete a project, liquidate assets or sell a business. (Ongore, 2011)

## ABSTRACT

The rationale of this study was to provide insights into the relationship between capital structure and financial performance of Kenya's banking industry. The pioneer work on capital structure by Modigliani and Miller (1958) despite of the unrealistic assumptions has been source of inspirations for scholars. Their propositions state that the market value of any firm and its cost of capital are independent of its capital structure in presence of perfect market conditions. The general objective of this study was to assess the effect of capital structure on financial performance of commercial banks in Kenya. The Specific Objectives was to assess the effect of debt on financial performance of commercial banks in Kenya, to assess the effect of internal equity on financial performance of commercial banks in Kenya, to assess the effect of external equity on financial performance of commercial banks in Kenya and to assess the effect of preference share on financial performance of commercial banks in Kenya. The financial performance was measured using EBIT (earnings before interest and tax). The target population was the banking industry. A census was conducted. Secondary data was used. Data was drawn from a sample of the registered banks by the Central Bank of Kenya in Kenya. According to the central bank of Kenya, there were 43 licensed commercial banks in Kenya. The study also used annual reports that were available from their websites and in the Central bank of Kenya website. Data was obtained for a ten year period from 2005 to 2014. Data analysis was done using SPSS software version 21 for efficient data representation. The model equation shows that growth in debt would affect financial performance positively leading to improvement in profitability. If there is an increase in debt levels, the EBIT is expected to increase by 17.6% per unit measure. The study also shows similar effect on retained earnings and preference shares on commercial banks' financial performance. If there is a unit increase in retained earnings and preference shares, the EBIT will tend to increase by 21.8% and 0.8% respectively, indicating that debt and retained earnings are more significant in predicting financial performance than preference shares which have insignificant factor at 95% confidence level. On the other hand, ordinary shares show different effect, that a unit increase would affect financial performance negatively by decreasing performance at a rate of -1%.

# **CHAPTER ONE**

## **INTRODUCTION**

This chapter examines the background to the study, the research problem and the purpose of the study. The research objectives, research questions, justification of the study, and scope are also discussed. The limitations and delimitation of the study are also discussed.

### **1.1 Background of the study**

A firm's capital structure is the mix of its' financial resources available for carrying on the business and is a major determinant on how the business operates. The capital structure of a firm is described as the components of its sources of financing, broadly categorized as equity and debt finance, Brockington (1990). In general, commercial banks can choose among many alternative capital structures. According to finance theory, the capital structure affect firm's cost of capital and consequently financial performance, (Abor, 2005).

Capital Structure is referred to as the ratio of different kinds of securities raised by a firm as long-term finance and debt. These securities include external equity (Ordinary shares), internal equity (Retained earnings), and preference shares, (Margaritis & Psillaki, 2010). Ordinary share capital is raised from the public from the sale of ordinary shares to the shareholders. This finance is available to limited companies. It is a permanent finance as the owner/shareholder cannot recall this money except under liquidation. It is thus a base on which other finances are raised. Ordinary share capital carries a return that is variable that is the ordinary dividends. These shares carry voting rights and can influence the company's decision making process at the AGM. The

ordinary shares carry the highest risk in the company (high securities) because of uncertainty of return. Ordinary shares cannot ensure refund and have residual claims.

Amidu, (2007) claims retained earnings is the percentage of net earnings not paid out as dividends, but retained by the company to be reinvested in its core business, or to pay debt. It is recorded under shareholders' equity on the balance sheet. Retained earnings include revenue reserves and capital reserves. Revenue Reserves are undistributed earnings. Such reserves are retained to make up for the fall in profits so as to sustain acceptable risks and to sustain growth through plough backs. They are a cheap source of finance and are used to boost the company's credit rating so that they enable further finance to be obtained. It lowers the company's gearing ratio and reduces chances of receivership/liquidation. Sulaiman, (2001) argues that Capital Reserves is raised by selling shares at a premium. (The difference between the market price less floatation costs and par value is credited to the capital reserve) or through revaluation of the company's assets. This leads to a fictitious entry which is of the nature of a capital reserve, or by creation of a sinking fund. Preference share is also called quasi-equity according to (Graham & Harvey, 2001) because it combines features of equity and those of debt. Preference share is preferred to ordinary share capital because it is paid dividends first and it is paid asset proceeds first. Unlike ordinary share capital, it has a fixed return and carries no voting rights. It is an unsecured finance and it increases the company's gearing ratio. (Myers, 2001)

Debt finance as suggested by Staking & Babbel, (1995) is a fixed return finance as the cost (interest) is fixed on the par value (face value of debt). It is ideal to use if there's a strong equity base. It is raised from external sources to qualifying companies and is available in limited quantities. It is limited to value of security and liquidity situation in

a given country. It is ideal for companies where gearing allows them to raise more debt and thus gearing level.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It is a general measure of a firms overall financial health over a given period of time and can be used to compare similar firms across the same industry. Kaplan and Norton (1992) argues that, performance can also be assessed on a balanced scorecard of critical success factors through four perspectives financial, customers, internal business processes and learning and growth.

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

Return On Asset, (ROA) is also another major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, 2011). It measures the ability of the bank management to generate income by utilizing company assets at their

disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources.

Net Interest Margin is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their assets. It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets).

The NIM variable is defined as the net interest income divided by total earnings assets (Gul et al., 2011). Net interest margin measures the gap between the interest income the bank receives on loans and securities and interest cost of its borrowed funds. It reflects the cost of bank intermediation services and the efficiency of the bank. The higher the net interest margin, the higher the bank's profit and the more stable the bank is. Thus, it is one of the key measures of bank profitability. However, a higher net interest margin could reflect riskier lending practices associated with substantial loan loss provisions (Khrawish, 2011).

In a study on the effect of capital structure on firm performance across different banks in Jordan, statistically, capital structure is not a major determinant of firm performance. (Titman and Wessels, 1988). It recommends that managers of manufacturing companies should exercise caution while choosing the amount of debt to use in their capital structure as it affects their performance negatively. Ibrahim (2009) examined

the impact of capital structure choice on firm performance in Egypt, using a multiple regression analysis in estimating the relationship between leverage level and firm's performance. The result revealed that capital structure choice decision in general, has a weak-to-no impact on firm's performance. Capital structure has been found to have impact on firm performance in Nigeria, (Olayinka, 2011).

Bank consolidation in Nigeria has increased bank equity capital against debt. Bank debt has a positive and significant effect on the financial performance of banks in Nigeria. Additionally, bank equity has a positive and significant relationship with bank financial performance; and bank debt and equity positively affect bank financial performance, (Olayinka, 2011). Amidu (2007) conducted a study to investigate the dynamics involved in the determination of the capital structure of the Ghana banks and the result was a negative relationship between profitability and leverage. The results of prior studies showed that higher profits increase the level of internal financing. In Kenya, Kiogora (2000), found a positive relationship between capital structure and value of the firm.

Cost of capital serves as the benchmark for firm's capital budgeting decisions therefore the optimal mix of debt and equity is imperative to outperform. Shareholders' wealth maximization concept also dictates that institutions choose the optimal mix of debt and equity financing that best serve the ultimate objective of the firm. Capital structure theory in response suggests that institutions establish what is often referred to as a target debt ratio, which is based on various trades-offs between the costs and benefits of debt versus equity, (Kochhar, 1997)

## **1.2 Statement of problem**

Studies on the impact of capital structure on profitability have mostly been carried out in developed economies on commercial banks. In the developing economies, Chiang Yat Hung, Chan Ping Chuen Albert & Hui Chi Man Eddie (2002) concluded that while high gearing is positively related to asset, it's negatively related to profit margins in Hong Kong. Kyereboah-Coleman (2007) finds that a high debt level is positively related to performance of micro-finance institutions in sub-Saharan Africa.

In Kenya, Kiogora (2000), found a positive relationship between capital structure and value of the firm. Titman & Wessels (1988) contend that firms with high profit levels, all things being equal, would maintain relatively lower debt levels since they can realize such funds from internal sources. Furthermore, Kester (1986) found a significantly negative relation between profitability and debt/asset ratios. Rajan & Zingalas (1995) also confirmed a significantly negative correlation between profitability and leverage in their work. Different authors have different opinion over the effect of capital structure on the profitability. This has led to the desire to establish whether the capital structure of commercial banks in Kenya has an influence on their profitability using time series analysis.

## **1.3 Objectives**

The general objective was to assess the effect of capital structure on financial performance of commercial banks in Kenya.

### **1.3.1 Specific Objectives**

- i. To determine the effect of debt on financial performance of commercial banks in Kenya

- ii. To assess the effect of internal equity on financial performance of commercial banks in Kenya
- iii. To determine the effect of external equity on financial performance of commercial banks in Kenya
- iv. To assess the effect of preference share on financial performance of commercial banks in Kenya.

#### **1.4 Research questions**

- i. Does debt have effect on financial performance of commercial banks in Kenya?
- ii. Does internal equity have effect on financial performance of commercial banks in Kenya?
- iii. Does external equity have effect on financial performance of commercial banks in Kenya?
- iv. Do preference share have effect on financial performance of commercial banks in Kenya?

#### **1.5 Justification**

The findings of this study will form part of the action plans that will help the commercial banks in Kenya in enhancing the banking sector countrywide. The results of the study can be used to develop policies, practices, and strategies that would enable higher levels of financial performance and create greater efficiencies in meeting strategic objectives of the commercial banks .The findings of this study will be expected to be of value to researchers and students with an interest in this field of study since it will provide literature that can be used for reference for future research and studies.

## **1.6 Scope**

The study used an empirical study design. The reasons for Using Empirical research methods is that traditional knowledge has been trusted for too long and that empirical research method help integrating research and practice, and also educational process or instructional science needs to progress. Empirical study design provide respect to contextual differences, help to build upon what is already known and provide opportunity to meet standards of professional research. Secondary data was used. Data was drawn from a sample of the registered banks by the Central Bank of Kenya in Kenya. According to the central bank of Kenya, there are 43 licensed commercial banks in Kenya. The study also used annual reports that were available from their websites and in the Central bank of Kenya website. Data was obtained for a ten year period from 2005 to 2014, considering banks that were there for the mentioned last years.

## **1.7 Limitation and delimitation of the study**

Some of the challenge faced was that the Managers of banks found it hard to give information as they were afraid that their information may be leaked out and that any information they gave out will bring them problems in the future. This limitation of fear was eliminated by giving out a letter from the university showing clearly that the information given out was solely used for academic purpose. The study relied on data collected from secondary sources and any error in the original data could not be avoided. However all data was collected from the Central Bank of Kenya and therefore reliable.

# CHAPTER TWO

## LITERATURE REVIEW

### 2.1 Introduction

This chapter review the documented theories and studies by other researchers in the field of capital structure that provide foundation to the study. The specific area cover provided basis of developing an understanding and established appropriate scope in aligning objectives to the existing theories.

### 2.2 Theoretical Review

The theoretical framework of a research project relates to the philosophical basis on which the research takes place, and forms the link between the theoretical aspects and practical components of the investigation undertaken.

#### 2.2.1 Franco Modigliani and Merton Miller Theorem

In 1958, the two financial researchers developed Modigliani and Miller contributed widely to capital structure by Proposition I Theorem showed that under certain restrictive assumptions the value of the firm is unaffected by the debt. Later they developed Proposition II that relaxed the assumptions under Proposition I and further considered corporate taxes. In 1977 Miller advanced the two propositions and developed a model that recognized personal taxes.

Proposition I also known as net operating income, they argued that the capital structure is irrelevant in determining the value of the firm. Capital structure decisions do not affect the value of the firm since firm value is independent of its leverage there is no

advantage of using debt since there are no corporate taxes, the weighted average cost of capital of a levered firm and unlevered firm is independent of the capital structure, the cost of equity increases as the gearing increases and the cost of debt remain unchanged as level of gearing increases hence irrelevance of capital structure decision on the value of the firm. Under restrictive assumptions of a perfect market, tax free economy, no transaction costs and homogeneous expectation of investors, capital structure is irrelevant in determining the firm value.

According to Modigliani and Miller if the assumptions do not hold, the arbitrage process shall take place where investors take advantage of the market imperfections and opt to sell the shares in the overvalued firms and buy the shares in the undervalued firms resulting to arbitrage gain realized.

They supported their argument that capital structure is irrelevant in determining the value of the firm by applying the arbitrage process to two companies identical in every As investors take advantage of arbitrage opportunities, the market will reach equilibrium when the prices of overvalued shares fall and the undervalued shares rise (Ryan, 2007; Watson and Head, 2007; Welch, 2009 & Pandey, 2010). Modigliani and Miller (1958) respect except for their leverage levels have equal cost of capital and therefore should not have different market values (Welch, 2009). Studies carried out thereafter concludes that these assumptions do no hold and have led to researchers to rationalize the MM proposition I and its underlying assumptions to prove that capital structure affects firm value and performance.

Watson and Head (2007) concludes that the theory had serious flaws based on their restrictive assumptions. Firstly, the assumption that individuals and companies can borrow at the same rate can be challenged, since borrowing by individuals are riskier and costly. Secondly, presence of no transaction cost is untrue since borrowing cost

exists and eliminate risk free profit thus affecting arbitrage gain, Thirdly, investors have a variant in expectation and finally a perfect market do not exist.

Later they developed a second paper, Proposition II also known as net income approach that relaxed the unrealistic assumptions under proposition I (Net operating income) and recognized that corporate tax exists and tax shield benefit associated with debt capital exists. They concluded that as companies take more debt, they shield more of their profit from corporation tax. They further argued that the value of a levered firm will always be higher than that of unlevered by an amount equal to the interest on tax shield (Watson and Head, 2007; Pandey, 2010 and Welch, 2009).

In 1977 Merton Miller extended the proposition I and II and introduced the personal taxes and its effect to the value of the firm. Miller developed a model that incorporates gearing levels, corporation taxation, personal taxation on debt and equity returns and amount of debt and equity available to investors. He argued that investors choose investment in companies that are in line with their personal taxation preference, considering company's capital structure that is debt and equity levels.

Investors who pay income tax will be inclined to invest in equity to take advantage of capital gain tax allowance avoiding debt (Welch, 2009). US and UK have changed their tax regime to ensure that minimal difference in personal tax treatment into capital structure; this however does not eliminate corporation tax associated with increased gearing (Watson and Head, 2007).

### **2.2.2 The Trade-Off Theory**

The term trade-off theory is used by different authors to describe a family of related theories. In all of these theories, a decision maker running a firm evaluates the various

costs and benefits of alternative leverage plans. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced. The original version of the trade-off theory grew out of the debate over the Modigliani-Miller theorem.

When corporate income tax was added to the original irrelevance, this created a benefit for debt in that it served to shield earnings from taxes. Since the firm's objective function is linear, and there is no offsetting cost of debt, this implied 100% debt financing. Several aspects of Myers' definition of the trade-off merit discussion, (Myers, 2010). First, the target is not directly observable. It may be imputed from evidence, but that depends on adding a structure. Different papers add that structure in different ways.

Second, the tax code is much more complex than that assumed by the theory. Depending on which features of the tax code are included, different conclusions regarding the target can be reached. Graham (2001) provides a useful review of the literature on the tax effects.

Third, bankruptcy costs must be deadweight costs rather than transfers from one claimant to another. The nature of these costs is important too. Haugen and Senbet (1978) provide a useful discussion of bankruptcy costs. Fourth, transaction costs must take a specific form for the analysis to work. For the adjustment to be gradual rather than abrupt, the marginal cost of adjusting must increase when the adjustment is larger. Leary and Roberts (2005) describe the implications of alternative adjustment cost assumptions.

### **2.2.3 Static trade-off theory**

The static trade-off theory affirms that firms have optimal capital structures, which they determine by trading off the costs against the benefits of the use of debt and equity. One of the benefits of the use of debt is the advantage of a debt tax shield. One of the disadvantages of debt is the cost of potential financial distress, especially when the firm relies on too much debt. Already, this leads to a trade-off between the tax benefit and the disadvantage of higher risk of financial distress. But there are more cost and benefits involved with the use of debt and equity.

One other major cost factor consists of agency costs. Agency costs stem from conflicts of interest between the different stakeholders of the firm and because of ex post asymmetric information (Jensen and Meckling, 1976). Hence, incorporating agency costs into the static trade-off theory means that a firm determines its capital structure by trading off the tax advantage of debt against the costs of financial distress of too much debt and the agency costs of debt against the agency cost of equity.

Many other cost factors have been suggested under the trade-off theory, and it would lead to far to discuss them all. Therefore, this discussion ends with the assertion that an important prediction of the static trade-off theory is that firms target their capital structures, i.e. if the actual leverage ratio deviates from the optimal one, the firm will adapt its financing behaviour in a way that brings the leverage ratio back to the optimal level.

### **2.2.4 The Dynamic Trade-off Theory**

Constructing models that recognize the role of time requires specifying a number of aspects that are typically ignored in a single-period model. Of particular importance are

the roles of expectations and adjustment costs. In a dynamic model, the correct financing decision typically depends on the financing margin that the firm anticipates in the next period. Some firms expect to pay out funds in the next period, while others expect to raise funds. If funds are to be raised, they may take the form of debt or equity. More generally, a firm undertakes a combination of these actions.

An important precursor to modern dynamic trade-off theories was Stiglitz (1973), who examines the effects of taxation from a public finance perspective. Stiglitz's model is not a trade-off theory since he took the drastic step of assuming away uncertainty. The first dynamic models to consider the tax savings versus bankruptcy cost trade-off are Kane et al. (1984) and Brennan and Schwartz (1984). Both analyzed continuous time models with uncertainty, taxes, and bankruptcy costs, but no transaction costs. Since firms react to adverse shocks immediately by rebalancing costlessly, firms maintain high levels of debt to take advantage of the tax savings.

Dynamic trade-off models can also be used to consider the option values embedded in deferring leverage decisions to the next period. Goldstein et al. (2001) observe that a firm with low leverage today has the subsequent option to increase leverage. Under their assumptions, the option to increase leverage in the future serves to reduce the otherwise optimal level of leverage today.

Strebulaev (2007) analyzed a model quite similar to that of Fischer et al. (1989) and Goldstein et al. (2001). Again, if firms optimally finance only periodically because of transaction costs, then the debt ratios of most firms will deviate from the optimum most of the time. In the model, the firm's leverage responds less to short-run equity fluctuations and more to long-run value changes.

Certain ideas are fairly general in dynamic models. The optimal financial choice today depends on what is expected to be optimal in the next period. In the next period, it may be optimal to raise funds or to pay them out. If raising new funds, it might be optimal to raise them in the form of debt or in the form of equity. In each case, what is expected to be optimal in the next period will help to pin down the relevant comparison for the firm in the current period.

Much of the work on dynamic trade-off models is fairly recent and so any judgements on their results must be somewhat tentative. This work has already fundamentally altered our understanding of mean reversion, the role of profits, the role of retained earnings, and path dependence. As a result, the trade-off class of models now appears to be much more promising than it did even just a few years ago.

#### **2.3.4 The Pecking Order Theory**

The pecking order theory does not take an optimal capital structure as a starting point, but instead asserts the empirical fact that firms show a distinct preference for using internal finance (as retained earnings or excess liquid assets) over external finance. If internal funds are not enough to finance investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimize additional costs of asymmetric information.

The latter costs basically reflect the “lemon premium” (Akerlof, 1970) that outside investors ask for the risk of failure for the average firm in the market. The resulting pecking order of financing is as follows: internally generated funds first, followed by respectively low-risk debt financing and share financing.

In Myers and Majluf model (1984), outside investors rationally discount the firm's stock price when managers issue equity instead of riskless debt. To avoid this discount, managers avoid equity whenever possible. The Myers and Majluf model predicts that managers will follow a pecking order, using up internal funds first, then using up risky debt, and finally resorting to equity. In the absence of investment opportunities, firms retain profits and build up financial slack to avoid having to raise external finance in the future.

The pecking order theory regards the market-to-book ratio as a measure of investment opportunities. With this interpretation in mind, both Myers (1984) and Fama and French (2000) note that a contemporaneous relationship between the market-to-book ratio and capital structure is difficult to reconcile with the static pecking order model. Iteration of the static version also suggests that periods of high investment opportunities will tend to push leverage higher toward a debt capacity.

To the extent that high past market-to-book actually coincides with high past investment, however, results suggest that such periods tend to push leverage lower. Empirical evidence supports both the pecking order and the trade-off theory. Empirical tests to see whether the pecking order or the trade-off theory is a better predictor of observed capital structures find support for both theories of capital structure (Shyam - Sunder and Myers, 1999; Fama and French, 2002).

### **2.2.5 The Market timing theory**

The market timing theory of capital structure argues that firms time their equity issues in the sense that they issue new stock when the stock price is perceived to be overvalued, and buy back own shares when there is undervaluation. Consequently,

fluctuations in stock prices affect firm's capital structures. There are two versions of equity market timing that lead to similar capital structure dynamics.

The first assumes economic agents to be rational. Companies are assumed to issue equity directly after a positive information release which reduces the asymmetry problem between the firm's management and stockholders. The decrease in information asymmetry coincides with an increase in the stock price. In response, firms create their own timing opportunities.

The second theory assumes the economic agents to be irrational (Baker and Wurgler, 2002). Due to irrational behaviour there is a time-varying mispricing of the stock of the company. Managers issue equity when they believe its cost is irrationally low and repurchase equity when they believe its cost is irrationally high. It is important to know that the second version of market timing does not require that the market actually be inefficient.

It does not ask managers to successfully predict stock returns. The assumption is simply that managers believe that they can time the market. In a study by Graham and Harvey (2001), managers admitted trying to time the equity market, and most of those that have considered issuing common stock report that "the amount by which our stock is undervalued or over-valued" was an important consideration.

This study supports the assumption in the market timing theory mentioned above which is that managers believe they can time the market, but does not immediately distinguish between the mispricing and the dynamic asymmetric information version of market timing. Baker and Wurgler (2002) provide evidence that equity market timing has a persistent effect on the capital structure of the firm. They define a market timing measure, which is a weighted average of external capital needs over the past few years,

where the weights used are market to book values of the firm. They find that leverage changes are strongly and positively related to their market timing measure, so they conclude that the capital structure of a firm is the cumulative outcome of past attempts to time the equity market.

### **2.3 Empirical Literature**

Lu Jingwen, Zhushu Fang (2008), 234 listed companies in our country for the study of the relationship between listed companies' capital structure and corporate performance empirical analysis, the study result: the company's capital structure and corporate performance of listed negatively correlated. Lijia Juan (2010), 11 listed company's capital structure and performance of the empirical analysis, the result is the relationship between China Aerospace listed company's capital structure and corporate performance also showed a more significant negative correlation. Foreign scholars Jesen, Solberg and Zorn (1992), on the relationship between managers and debt analysis, the results show that the business performance and debt ratio is negatively correlated.

A similar study was carried out by Velnampy & Aloy (2012), who investigated the relationship between capital structure and profitability of ten listed Srilankan banks over the past 8 year period from 2002 to 2009. The data was been analyzed by using descriptive statistics and correlation analysis to find out the association between the variables. Results of the analysis showed that there was a negative association between capital structure and profitability except the association between debt to equity and return on equity. Further the results suggested that 89% of total assets in the banking sector of Sri Lanka were represented by debt, confirming the fact that banks are highly geared institutions.

Song Li, Zhang Bingbing (2010), on the state-owned holding company in Liaoning Province were analyzed from continuing operations, performance and business results showed a positive correlation between capital structures. Juan, Yang Fenglin (1998), 461 listed companies in Shanghai Stock Exchange for the study, empirical study of its capital structure condition, capital structure and performance studies show a positive correlation.

To study the relationship between capital structure and corporate performance, Long Ying, Zhang Jialin (2003) in China's power industry, listed companies as the research object, its empirical research, the results also show a positive correlation between the two. Foreign scholars Masulis (1983) analyzed the relationship between capital structure and corporate performance; enterprise performance level obtained positive correlation between its liabilities conclusions.

Du liwen, Jiang Yong (2009), Shanghai and Shenzhen listed companies are selected for the study, results showed the existence of no significant negative correlation between capital structure and corporate performance. Cheng Taiyou (2004) also made a related study, the results showed that between capital structure and corporate performance relationship is not significant, and increase or decrease the asset-liability ratio has little effect on the company's performance.

Lu Jingwen, Zhushu Fang (2008) ,China's listed companies as the research object, select the 234 listed companies from 2003 to 2006 data, the relationship between listed companies' capital structure and performance of the empirical analysis found that the capital structure of listed companies; In addition to corporate performance was negatively correlated, there is a secondary linear correlation.

Long Ying, Zhang World Bank (2009), 39 listed companies in Anhui Province as samples to study relationship between capital structure and corporate performance to establish panel data model, the result of the relationship between capital structure and performance of both the performance of the graph was inverted "U" shape. Zhu Haiyan (2010), the 2008 A-share companies in Shandong Province as samples, empirical analysis of the relationship between the two was found, Shandong Province, the capital structure of listed companies and corporate performance inverted "U" relationship. That reached a critical point before the two are positively correlated over the critical point is a negative correlation between the two.

In summary, the studies on the capital structure and performance between domestic and foreign divergent conclusions. Between them there is no uniform conclusion. As the impact of the social environment and time, at different times, different backgrounds and different regions, select a different research methods and indicators to study the relationship between performance and capital structure will there is a big difference.

However, the above literature, mostly through research sectional data to data from a year of study, that is, from a horizontal perspective, explore the relationship between capital structure and performance, which mainly reflected the relationship between the static aspects. This statistical method allows conclusions timeliness affected, yet few scholars have come from a longitudinal study of the relationship between capital structure and financial performance, and that is, long-term relationships between them, the last time the variable itself is also considered the impact come.

In general, the current capital structure will be affected prior period capital structure, or performance is also affected by the capital structure of the previous period. At the same time, the causal relationship between capital structure and performance is not

necessarily occur simultaneously, in the process, there may be a lag time. Thus, long-term relationship between research performance and capital structure is particularly important.

### **2.3.1 Conceptual Framework**

A conceptual framework is used to identify the concepts, assumptions, expectations, beliefs or theories that support a research. The conceptual framework for this study is based on the relationship between the independent and dependent variables identified in the study.

#### **2.3.1.1 Debt**

Any money owed to a company, or other organization is debt. An organization acquires debt when it borrows money. In business and government, debt is often issued in the form of bonds, which are tradable securities entitling the bearer to repayment at the appropriate time. Debt finance is a fixed return finance as the cost (interest) is fixed on the par value (face value of debt). It is ideal to use if there's a strong equity base. It is raised from external sources to qualifying companies and is available in limited quantities. It is limited to value of security and liquidity situation in a given country. It is ideal for companies where gearing allows them to raise more debt and thus gearing level, Kinsman and Newman, (1998)

#### **2.3.1.2 Internal Equity (Retained Earnings)**

Retained earnings are profits not paid out as dividends but retained to financial future investment needs. The cost of retained earnings is the foregone benefits/dividends by ordinary shareholders. If the cost of retained earnings is low compared to the cost of

new ordinary share capital, the firm will retain more and pay less dividend, (Ilhomovich, 2009).

Additionally, the use of retained earnings as an internal source of finance is preferred because it does not involve any floatation costs and does not dilute ownership and control of the firm, since no new shares are issued. Retained earnings are an internal source of finance thus, when they are high there is low gearing, lower financial risk and thus highest market price share. It assumes that retained earnings is the best source of long term capital since it is readily available and cheap. This is because no floatation cash are involved in use of retained earnings to finance new investments.

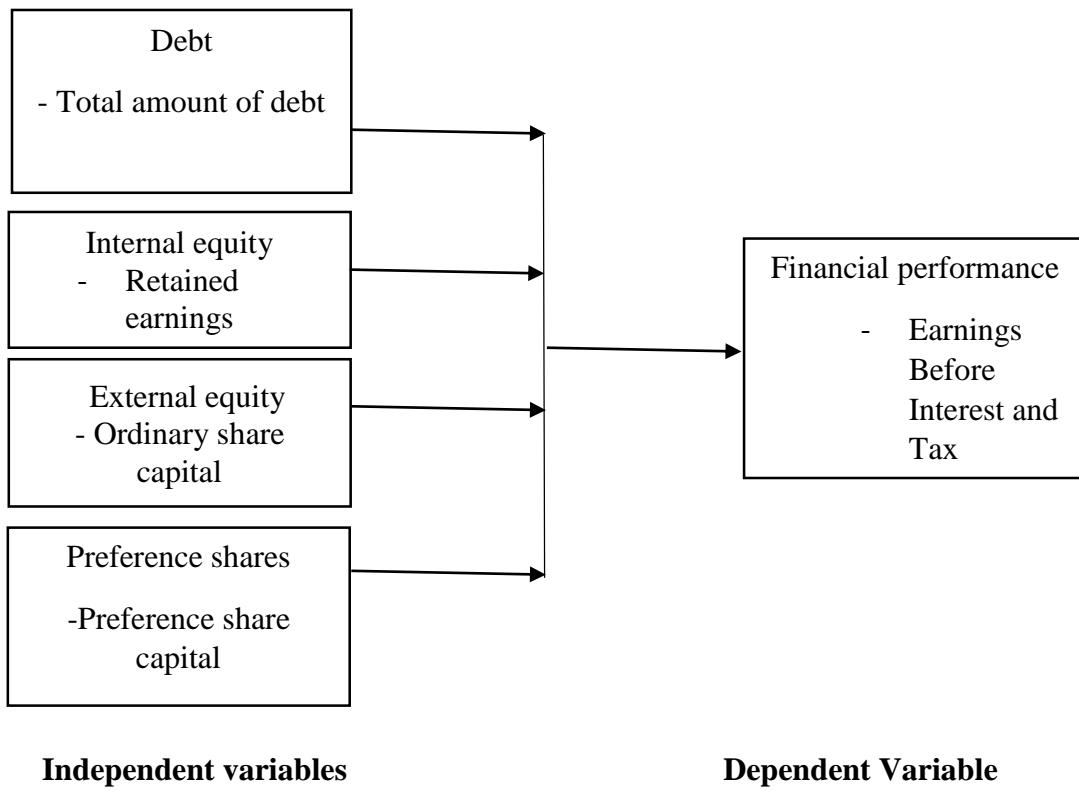
### **2.3.1.3 External Equity (Ordinary Shares)**

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

### **2.3.1.4 Preference Share Capital (Quasi-Equity)**

It is also called quasi-equity because it combines features of equity and those of debt. It is preference because it is preferred to ordinary share capital that is it is paid dividends first and it is paid asset proceeds first. Unlike ordinary share capital, it has a fixed return. It carries no voting rights. It is an unsecured finance and it increases the company's gearing ratio. The preference share capital are classified as follows; Redeemable preferential shares which are bought back by issuing company after minimum redemption period but before expiring of maximum redemption period after which they

become creditors. Irredeemable Preference Shares which are perpetual preference shares as they will not be redeemed in the company's lifetime unless it is under liquidation, (Margaritis, 2010).



**Fig 2.1 Conceptual framework**

**Source:** (Author, 2016)

#### 2.4 Literature overview and Research gaps

In the seminal article, presented by MM's (1958) irrelevance theory, they argued that capital structure is unrelated to firm's value. In the presence of corporate income tax and the cost of capital in MM's (1963) they argued that the market value of the firm is positively related to the amount of long term debt used in its capital structure. The relationship between capital structure and profitability is one that received considerable attention in the finance literature. The study regarding the effects of capital structure on

financial performance will help us to know the potential problems in performance and capital structure.

Research methods and the results of theoretical research have some significance to the capital structure, while banks work in practice how to determine the capital structure has a certain reference value. This paper confirms the capital structure and performance with the correlation between capital structures and may have a lag effect on performance. Therefore, an enterprise to enhance profitability and maximize corporate value, then only need to consider the impact of capital structure, but also the need to consider the capital structure over the years.

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter outlines the general methodology used to conduct the study. The chapter comprises of the research design, target population, sampling and sampling procedure, data collection method and data collection tools, data analyzing instruments and the description of applied model.

### **3.2 Research design**

Empirical research method was used. It used panel data of ten years due to the advantage that it has. It helps to study the behaviour of each bank over time and across space, Baltagi, (2005). The reasons for using Empirical research methods is that empirical research method help integrating research and practice, and also educational process needs to progress, Mugenda and Mugenda, (2003). Empirical study design provide respect to contextual differences, help to build upon what is already known and provide opportunity to meet standards of professional research. This empirical study was based on secondary data obtained from published statements of accounts of the licensed commercial banks in Kenya, CBK, IMF and World Bank publications for five years from 2009 to 2014, considering banks that were in existence for the mentioned last years, Bryman & Bell, (2011).

### **3.3 Target Population**

According to Bryman & Bell, (2011), population refers to the complete set of counts derived from objects possessing one or more common characteristics. In this study, the

population consisted of all the commercial banks registered by the Central Bank of Kenya in Kenya. According to the central bank of Kenya, there are 43 licensed commercial banks in Kenya. In this study, the population considered the commercial banks which were in existence for the period of 2004 to 2015.

### **3.4 Sample size and sampling technique**

According to the Central Bank of Kenya, there are 43 licensed commercial banks in Kenya. In this study, the population consisted of the banks which were in existence in the period of 2005 to 2014. The commercial banks which had since gone under or on receivership were not included in the study. Four banks had undergone acquisition as shown in appendix four. Five banks had undergone mergers as indicated in the appendix three. Family bank was fully fledged a commercial Bank in 2006, Charter house Bank was closed in 2006 due to tax evasion and money laundering and Dubai Bank placed under receivership in 2013. This brought the population total from 43 to 33. Hence a census was conducted.

### **3.5 Data collection procedure**

This empirical study was based on secondary data obtained from published statements of accounts of the licensed commercial banks in Kenya, CBK, IMF and World Bank publications for ten years from 2005 to 2014, considering banks that were there for the mentioned last years. The data to be collected for each variable includes; for financial performance, the data to be collected was EBIT for the 33 commercial banks, the data that was collected for debt was the total amount of debt. The data collected for ordinary shares was the ordinary share capital. The data was collected for total retained earnings for each bank, and the data collected for the preference shares was the preference share capital. Upon receipt of all available and reliable publications, the researcher embarked on data analysis as guided by the research objectives.

### 3.6 Data Processing and analysis

The data collected was analyzed using SPSS software version 21. Descriptive statistics was used such as mean, standard deviation, variance, median, mode, maximum, minimum values, kurtosis and skewness. Multiple regression analysis and correlation analysis was used to predict and explain the nature and significance of relationship between dependent and independent variables.

Karl Pearson correlation coefficient –one tailed, was used because the distribution of the data was parametric i.e. normal distribution. This was tested using a normality test called Kologorov – Smirov, Dimitris & Maria, (2010). The regression model of Bertha and Melody (2013) comprised Earnings Before Interest and Taxes (**EBIT**) as the dependent variable. The independent variables included Debt (**D**), Retained Earnings (**RE**), Ordinary Shares (**OS**), and Preference shares (**PS**).

$$\text{EBIT} = \alpha + \beta_1 D + \beta_2 RE + \beta_3 OS + \beta_4 PS + \varepsilon$$

**Where:**

**$\alpha$**  = constant

**$\beta_1, \beta_2, \beta_3, \beta_4$**  = regression coefficients

**D** = Debt

**RE** = Retained Earnings

**OS** = Ordinary Shares

**PS** = Preference Shares

**$\varepsilon$**  = Error term

This model was used to test whether the independent variables was capable of predicting relationship between capital structure and financial performance.

# CHAPTER FOUR

## DATA ANALYSIS AND INTERPRETATION

### 4.1 Introduction

This chapter presents the research findings on the relationship between capital structure and financial performance of Commercial Banks in Kenya. The output analysis was carried out for a period of 10 years from year 2005 to 2014. Regression analysis was used in the data analysis.

### 4.2 Descriptive Statistics

This section discusses the descriptive statistics of the data analysed for the ten year duration. The descriptive statistics for the both dependent variable (EBIT) and the four independent variables show the results indicated in the summarized in the table below;

**Table 4.1 Descriptive Statistics**

---

|                    | EBIT   | DEBT   | RETAINED EARNINGS | ORDINARY SHARES | PREFERENCE SHARES |
|--------------------|--------|--------|-------------------|-----------------|-------------------|
| Mean               | 0.4744 | 0.8637 | 6.4186            | 0.6761          | 10.3489           |
| Standard Error     | 0.0435 | 0.0512 | 0.0362            | 0.3182          | 0.2519            |
| Median             | 0.3277 | 0.6031 | 6.3394            | 0.1520          | 10.2800           |
| Mode               | 0.0000 | 1.7375 | 6.6680            | 2.8616          | 5.6000            |
| Standard Deviation | 0.5836 | 0.6870 | 0.4859            | 4.2687          | 3.3792            |
| Sample Variance    | 0.3406 | 0.4720 | 0.2361            | 18.2222         | 11.4193           |
| Kurtosis           | 2.7399 | 1.6209 | 0.6755            | 142.75          | -1.5242           |

|          |         |        |        |         |         |
|----------|---------|--------|--------|---------|---------|
| Skewness | 0.9516  | 1.3803 | 0.2944 | 11.5193 | -0.0914 |
| Range    | 4.2752  | 3.7124 | 3.4049 | 55.3744 | 8.6800  |
| Minimum  | -1.7578 | 0.0471 | 4.6068 | -0.9681 | 5.6000  |
| Maximum  | 2.5174  | 3.7595 | 8.0117 | 54.4063 | 14.2800 |

From the output, the cross-section data on the 33 commercial banks over the ten years comprised of observations for each of the four variables incorporated in the analysis. The results show positive means for all variables. The range of the variables is identified by the median row and the table further shows the maximum and minimum values of the variables. The mean for EBIT is 47.44% for the commercial banks over the period of study, with a standard deviation of 58.36%. The mean for Debt is 86.37% with a standard deviation of 68.7%. The retained earnings for the commercial banks stand at 6.4 with a maximum value of 8.0 and minimum value of 4.6 indicating that most commercial banks' retained earnings vary. That is the data is clustered within the mean.

### 4.3 Correlation Analysis

**Table 4.2 Correlation Analysis**

|      | EBIT     | D         | RE       | OS        | PS |
|------|----------|-----------|----------|-----------|----|
| EBIT | 1        |           |          |           |    |
| D    | 0.334701 | 1         |          |           |    |
| RE   | 0.327386 | 0.524352  | 1        |           |    |
| OS   | -0.01509 | 0.077182  | 0.106355 | 1         |    |
| PS   | 0.307248 | -0.163181 | 0.182115 | -0.127738 | 1  |

Multicollinearity check is useful in testing whether two variables are highly correlated. From the correlation matrix above it shows that there is no multicollinearity, the coefficients are below 0.7 meaning there is low associations between the independent variables. According to Matignon (2005) a correlation coefficient of 0.7 to 0.99 indicate a problem of multicollinearity. From the matrix, most cells show low positive correlations. Only Preference shares (PS) which have low negative correlation coefficients against Debt (D) and Ordinary Shares (OS).

## **4.4 Regression Analysis**

This section discusses the regression statistics output, statistical significance of the model and model coefficients.

### **4.4.1 Regression Output**

The regression statistics output derived from the analysis is summarized in the Table below;

**Table 4.3 Summary Regression Output**

| Regression Statistics |        |
|-----------------------|--------|
| Multiple R            | 0.4568 |
| R Square              | 0.2087 |
| Adjusted R Square     | 0.1859 |
| Standard Error        | 0.5266 |

The table above provides the model summary results whereby it gives values of R, R<sup>2</sup>, Adjusted R<sup>2</sup> and standard error. This shows how well the regression model fits the data analysed. The R<sup>2</sup> represents the correlational coefficient which measures the quality of dependent variables; in this case, the value of R<sup>2</sup> is 20.87% which shows a weak level of prediction at 5% significance level. However, Adjusted R<sup>2</sup> which is a coefficient of determination shows the variation in the dependent variable due to changes in the independent variables. From the findings, the value of adjusted R<sup>2</sup> is 0.1859 an indication that there was variation of 18.59% on financial performance of commercial banks due to changes in the independent variables; Debt, Retained Earnings, Ordinary Shares and Preference Shares, the other 81.5% is not explained by the model. This shows that financial performance of commercial banks in Kenya is not affected much by these variables. This means that there are other factors that affect financial performance of commercial banks in Kenya.

#### **4.4.2 Statistical Significance of the Model**

The significance of the estimated model can be summarized in the ANOVA table below;

**Table 4.4 Analysis of Variance (ANOVA)**

**ANOVA**

|            | df  | SS          | MS          | F           | Significance F |
|------------|-----|-------------|-------------|-------------|----------------|
| Regression | 5   | 12.72289035 | 2.544578071 | 9.177280321 | 0              |
| Residual   | 174 | 48.24485783 | 0.277269298 |             |                |
| Total      | 179 | 60.96774819 |             |             |                |

In this output, the test statistic, F, is reported in the analysis of variance table, F (5,174) = 9.177. The p-value for this statistics is p< 0.001. This shows that there is evidence that there are differences in the means across variables indicating there is significant effect of independent variables to financial performance.

#### 4.4.3 Estimated Model Coefficients

The regression model coefficient derived from the analysis in the table below;

**Table 4.5 Model Coefficients**

|           | <b>Coefficients</b> | <b>Standard Error</b> | <b>t Stat</b> | <b>P-value</b> | <b>Lower 95%</b> | <b>Upper 95%</b> |
|-----------|---------------------|-----------------------|---------------|----------------|------------------|------------------|
| Intercept | -1.367              | 0.593                 | -2.305        | 0.022          | -2.539           | -0.196           |
| D         | 0.176               | 0.068                 | 2.603         | 0.010          | 0.043            | 0.310            |
| RE        | 0.218               | 0.096                 | 2.267         | 0.025          | 0.028            | 0.407            |
| OS        | -0.010              | 0.009                 | -1.093        | 0.276          | -0.029           | 0.008            |
| PS        | 0.008               | 0.012                 | 0.659         | 0.511          | -0.016           | 0.031            |

The equation derived is

$$Y = -1.367 + 0.176X_1 + 0.218X_2 - 0.010X_3 + 0.008X_4$$

Where:

$X_1$  = Debt

$X_2$  = Retained Earnings

$X_3$  = Ordinary Shares

$X_4$  = Preference Shares

In this model, it can be observed that holding Debt, Retained Earnings, Ordinary Shares and Preference Shares to a constant zero, EBIT would be -1.367. Further, it can be observed that there is a positive relationship between financial performance and Debt, Retained Earnings and Preference Shares and negative relationship on between financial performance and Ordinary Shares.

A unit increase in debt would lead to an increase in EBIT by a significant factor of 17.6%, a unit increase in retained earnings would lead to an increase in EBIT by a factor of 21.8%, and a unit increase in preference shares would lead to an increase in EBIT by an insignificant factor of 0.8%. Further a negative relationship is observed between financial performance and ordinary shares, a unit increase in ordinary shares would lead to a decrease in EBIT by an insignificant factor of 0.010.

From the above analysis, it is found that the effect of capital structure on the performance of commercial banks in Kenya is relatively small. This has been indicated in the model whereby the variables which were used in the analysis can only explain 18.6% of the performance of commercial banks in Kenya the other 81.4% cannot be explained. Therefore, it is observed that the model is not very strong predictor of financial performance in the banking industry in Kenya.

Further analysis of the model shows that the coefficients of the model debt, internal equity and preference shares affect financial performance positively whereas change in the ordinary shares affects financial performance negatively. From the model results, debt and internal equity have a significant effect in predicting financial performance ordinary shares which have an insignificant factor. There was a fairly strong relationship between the financial performance of commercial banks and the debt, internal equity and preference shares. The coefficient on ordinary shares was negative,

an indication that there existed a negative relationship between financial performance and ordinary shares.

#### **4.5 Variables summary**

After data collection, the secondary data was tabulated, edited, processed and analysed.

The following were the answers to the research questions. The answers were summarised from the different analysis done using SPSS version 21.

##### **4.5.1 Debt and financial performance of commercial banks**

The model equation shows that growth in debt would affect financial performance positively leading to improvement in profitability. If there is an increase in debt levels, the EBIT is expected to increase by 17.6% per unit measure. According to ANOVA, The p-value for this statistics is  $p < 0.001$ . This shows that there is evidence that there are differences in the means across variables indicating there is significant effect of debt to financial performance.

##### **4.5.2 Internal equity and financial performance of commercial banks**

In respect to the model equation, a unit increase in internal equity would lead to an increase in EBIT by a factor of 21.8%. From the findings, the value of adjusted  $R^2$  is 0.1859, an indication that there was variation of 18.59% on financial performance of commercial banks due to changes in the internal equity. In respect to the ANOVA, The p-value for this statistics is  $p < 0.001$ . This shows that there is evidence that there are differences in the means across variables indicating there is significant effect of internal equity to financial performance.

#### **4.5.3 External equity and financial performance of commercial banks**

A negative relationship is observed between financial performance and external equity, a unit increase in external equity would lead to a decrease in EBIT by an insignificant factor of 0.010, from the model. From the correlation analysis, external equity is -0.01509 correlated with the financial performance. The value of adjusted  $R^2$  is 0.1859, an indication that there was variation of 18.59% on financial performance of commercial banks due to changes in the external equity.

#### **4.5.4 Preference shares and financial performance of commercial banks**

With respect to the correlation analysis preferences shares have a positive correlation of 0.307248 with the financial performance. The value of adjusted  $R^2$  is 0.1859, an indication that there was variation of 18.59% on financial performance of commercial banks due to changes in the preferences shares. With regard to the model, a unit increase in preference shares would lead to an increase in EBIT by an insignificant factor of 0.8%.

## CHAPTER FIVE

### SUMMARY CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes the findings from chapter four. Summary, conclusions and recommendations were based on the objective of the study i.e. to determine the relationship between capital structure and financial performance of commercial banks in Kenya. The study used secondary data from Central Bank of Kenya for 33 firms for year 2005 to year 2014. First, focus is placed on the summary of the findings and addressing of the study questions confirmation as derived from this study. Additionally, policy and further study recommendations which should be of interest to both management and investors are covered. Suggestions for further study are also captured as a way of filling the gaps identified in the study.

#### 5.2 Summary of Findings

From the analysis in Chapter Four, it can be observed that capital structure have some effect on financial performance of commercial banks in Kenya. The model equation shows that growth in debt would affect financial performance positively leading to improvement in profitability. If there is an increase in debt levels, the EBIT is expected to increase. The study also shows similar effect on retained earnings and preference shares on commercial banks' financial performance. If there is a unit increase in retained earnings and preference shares, the EBIT will tend to increase, indicating that debt and retained earnings are more significant in predicting financial performance than preference shares which have insignificant factor. On the other hand, ordinary shares

show different effect, that a unit increase would affect financial performance negatively by decreasing performance at a negative rate.

The findings shows that commercial banks that increase their debt ratio, retained earnings and preference shares, will improve financial performance since their EBIT will tend to rise. However, ordinary shares will affect performance negatively hence reducing their profitability.

The study further found the four independent variables formed a statistically significant model from the analysis of variance (ANOVA). This implies that the variables provided a good fit in explaining capital structure. The regression results showed that a positive relationship exists between the independent variables except ordinary shares which showed a negative relationship which was minimal with financial performance. Debt was found to influence financial performance more immensely compared to the other variables.

A similar study was carried out by Velnampy & Aloy (2012), who investigated the relationship between capital structure and profitability of ten listed Srilankan banks over the past 8 year period from 2002 to 2009. The data was been analyzed by using descriptive statistics and correlation analysis to find out the association between the variables. Results of the analysis showed that there was a negative association between capital structure and profitability except the association between debt to equity and return on equity. Further the results suggested that 89% of total assets in the banking sector of Sri Lanka were represented by debt, confirming the fact that banks are highly geared institutions.

Kuria (2010) analysed seven years (2003 – 2009) data of listed firms in NSE using multiple regression and correlational analysis asserts financial performance, have a

significant relationship with financial leverage, that is profitable firms do not often finance their investments from debt source but use retained earnings supporting pecking order theory. Other variables by Kuria (2010) that were consistent with the findings are size of a firm and asset structure affect leverage ratios supporting static trade off theory.

Also, Orua (2009) who concluded that capital structure influences the performance of corporate entities. This was study of the relationship between capital structure and financial performance of micro institutions in Kenya. Therefore it can be concluded that capital structure do affect the performance of the commercial banks but not significantly. The performance of the commercial banks is influenced majorly by other factors besides the capital structure of the firm. The impact of capital structure cannot be rated as a major effect since it is very insignificant.

### **5.3 Conclusion**

The general objective was to determine whether capital structure had effect on financial performance of the commercial banks in Kenya. It was concluded that debt affects the commercial bank's financial performance positively and thus an increase in the debt ratio of the commercial bank would result in increased financial performance whereas a reduction in the debt levels of the commercial bank would lead to a reduced financial performance of the commercial bank.

It was concluded that retained earnings affects the commercial bank's financial performance positively and thus an increase in the retained earnings of the commercial bank would result in increased financial performance whereas a reduction in the retained earnings of the commercial bank would lead to a reduced financial performance of the commercial bank.

It was also concluded that preference shares affects the commercial bank's financial performance positively, and thus an increase in the preference shares of the commercial bank would result in increased financial performance. Whereas a reduction in the preference shares of the commercial bank would lead to a reduced financial performance of the commercial bank.

Lastly but not least, it was concluded that, ordinary shares affects the commercial bank's financial performance negatively, and thus an increase in the ordinary shares of the commercial bank would result in increased financial performance. Whereas a reduction in the ordinary shares of the commercial bank would lead to a reduced financial performance of the commercial bank.

The findings of adjusted  $R^2$  revealed that there exist a variation on EBIT of commercial banks due to changes in debt. Therefore, It can be concluded that capital structure do have an effect on financial performance of the commercial banks in Kenya, although the effect is minimal. It is also observed that there are other major factors which affect the performance of the commercial banks more than its capital structure. These other factors may include level of advertising and promotion, marketing strategies adopted, corporate governance, management among others. These factors should be included in other studies relating to financial performance of commercial banks in Kenya.

#### **5.4 Recommendations**

The management of commercial banks will be able to make informed decision on borrowings to influence financial performance positively. From the findings, financial leverage was observed to be a key contributor to improvement of financial performance. Therefore, the finance managers in the commercial banks need to maintain an optimal

capital structure that will help improve financial performance as long as the debt does not exceed the industry expected optimum level. Investing in retained earnings and preference share capital is desirable, and profitable. But due diligence should be taken before making decisions of increasing ordinary share capital since ordinary shares impacts the financial performance negatively.

It is recommended that the investors should use the results obtained from the research, to choose profitable commercial banks to make good investment decision, thereby creating more wealth.

### **5.5 Suggestion for Further Studies**

The study advocates that further studies in this area incorporating other financial performance measures such as return on equity and incorporating different variables from those which have been used in this study like impact on level of advertising and promotion, marketing strategies adopted, insurance products innovations, management actions and new product development.

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## APPENDICES

### Appendix I: Introduction letter

Doris Kanini Samuel

South Eastern Kenya University

P.O BOX 170

Kitui

11<sup>th</sup> January 2016

**Dear Sir/ Madam**

**RE: REQUEST FOR DATA**

I am a Master of Business Administration student in the School of Business and Economics carrying out research on *Effects of capital structure on financial performance of commercial banks in Kenya*. The purpose of this letter is therefore to kindly request your voluntary participation in this study by providing us with publications made by your entity containing information on financial reports. The information gathered shall be treated confidentially and shall be used for this research only. Kindly sign this form if you agree to participate in this study.

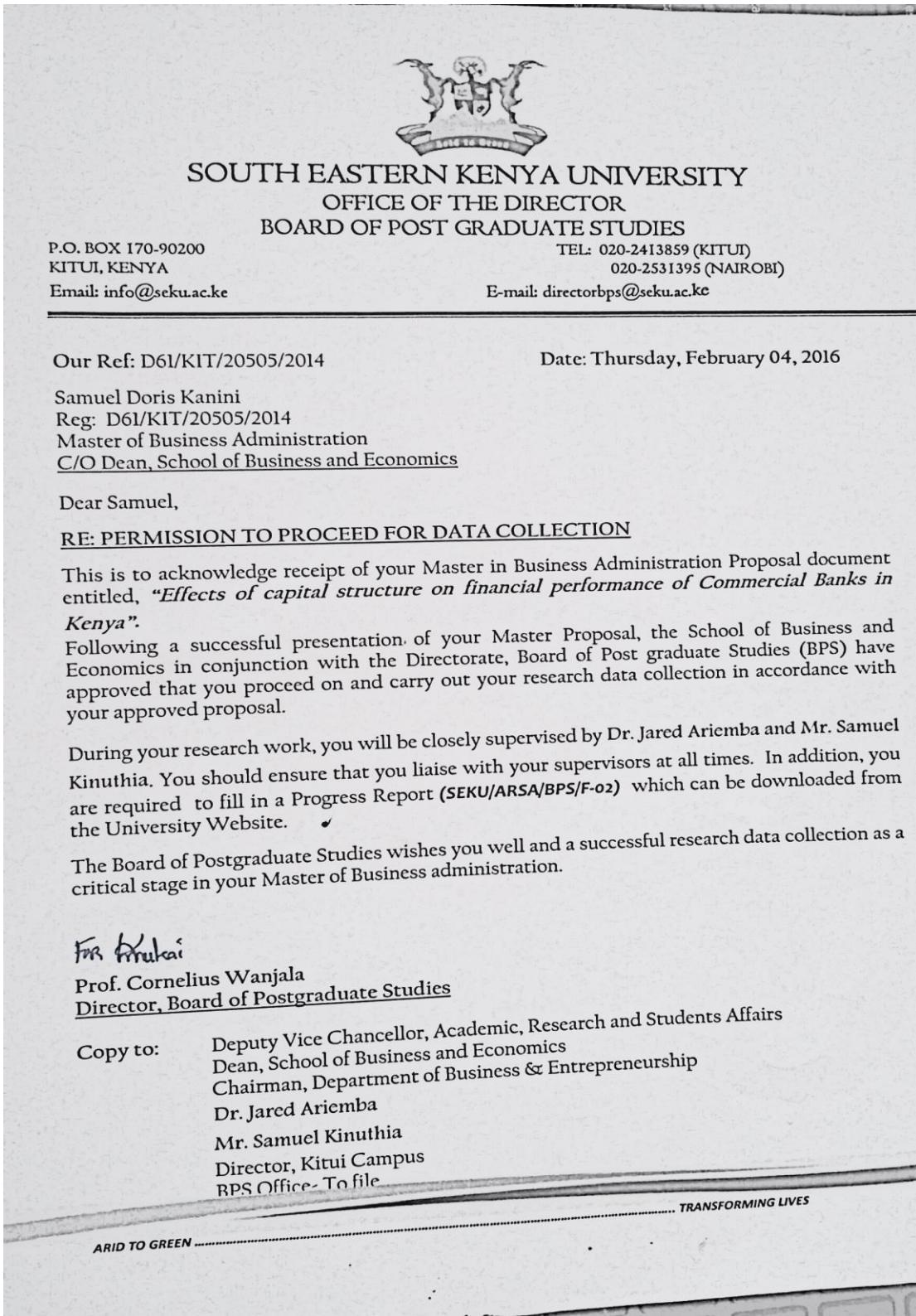
Yours sincerely,

**Doris Kanini Samuel**

**Email: [dokanini@gmail.com](mailto:dokanini@gmail.com)**

**Mobile No: 0720602705**

## Appendix II: Introduction letter from University



### Appendix III: Data collection sheet

#### I. EBIT

| SN | NAME                                 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----|--------------------------------------|------|------|------|------|------|------|------|------|------|------|
| 1  | African Banking Corporation, Nairobi |      |      |      |      |      |      |      |      |      |      |
| 2  | Bank of Baroda, Nairobi              |      |      |      |      |      |      |      |      |      |      |
| 3  | Bank of India, Nairobi               |      |      |      |      |      |      |      |      |      |      |
| 4  | Barclays Bank of Kenya, Nairobi      |      |      |      |      |      |      |      |      |      |      |
| 5  | Chase Bank Ltd, Nairobi              |      |      |      |      |      |      |      |      |      |      |
| 6  | Citibank, Nairobi                    |      |      |      |      |      |      |      |      |      |      |
| 7  | City Finance Bank, Nairobi           |      |      |      |      |      |      |      |      |      |      |
| 8  | Co-operative Bank of Kenya, Nairobi  |      |      |      |      |      |      |      |      |      |      |

**9** Consolidated

Bank of Kenya

Ltd, Nairobi

**10** Credit Bank Ltd,

Nairobi

**11** Development

Bank of Kenya,

Nairobi

**12** Diamond Trust

Bank, Nairobi

**13** Equity Bank,

Nairobi

**14** Fidelity

(Commercial)

Bank Ltd,

Nairobi

**15** Fina Bank Ltd,

Nairobi

**16** First

Community

Bank Ltd,

Nairobi

**17** Giro

Commercial

Bank Ltd,  
Nairobi

**18** Guardian Bank,  
Nairobi

**19** Gulf African  
Bank Ltd,  
Nairobi

**20** Habib Bank  
A.G. Zurich,  
Nairobi

**21** Habib Bank Ltd,  
Nairobi

**22** Housing  
Finance Co. Ltd,  
Nairobi

**23** I&M Bank Ltd  
Nairobi

**24** Middle East  
Bank, Nairobi

**25** National Bank  
of Kenya,  
Nairobi

**26** National  
Industrial Credit  
Bank Ltd

**27** Oriental

Commercial

Bank Ltd,

Nairobi

**28** Paramount

Universal Bank

Ltd, Nairobi

**29** Southern Credit

Banking Corp.

Ltd, Nairobi

**30** Standard

Chartered Bank,

Nairobi

**31** Trans-National

Bank Ltd,

Nairobi

**32** UBA Kenya

Bank Ltd,

Nairobi

**33** Victoria

Commercial

Bank Ltd,

Nairobi

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**Source:** (Author, 2016)

## II. INDEPENDENT VARIABLES FOR EACH BANK

| SN    | VARIABLES  | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
|-------|------------|----|----|----|----|----|----|----|----|----|----|
| O     |            | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 |
| <hr/> |            |    |    |    |    |    |    |    |    |    |    |
| 1     | DEBT       |    |    |    |    |    |    |    |    |    |    |
| 2     | RETAINED   |    |    |    |    |    |    |    |    |    |    |
|       | EARNINGS   |    |    |    |    |    |    |    |    |    |    |
| 3     | ORDINARY   |    |    |    |    |    |    |    |    |    |    |
|       | SHARES     |    |    |    |    |    |    |    |    |    |    |
| 4     | PREFERENCE |    |    |    |    |    |    |    |    |    |    |
|       | SHARES     |    |    |    |    |    |    |    |    |    |    |
| <hr/> |            |    |    |    |    |    |    |    |    |    |    |

**Source:** (Author, 2016)

#### **Appendix IV: List of commercial banks in Kenya**

1. African Banking Corporation, Nairobi
2. Bank of Africa Kenya, Nairobi
3. Bank of Baroda, Nairobi
4. Bank of India, Nairobi
5. Barclays Bank of Kenya, Nairobi
6. CFC Stanbic Bank, Nairobi
7. Charterhouse Bank Ltd, Nairobi
8. Chase Bank Ltd, Nairobi
9. Citibank, Nairobi
10. City Finance Bank, Nairobi
11. Co-operative Bank of Kenya, Nairobi
12. Commercial Bank of Africa, Nairobi
13. Consolidated Bank of Kenya Ltd, Nairobi
14. Credit Bank Ltd, Nairobi
15. Development Bank of Kenya, Nairobi
16. Diamond Trust Bank, Nairobi
17. Dubai Bank Kenya Ltd, Nairobi
18. Equatorial Commercial Bank Ltd, Nairobi

19. Equity Bank, Nairobi
20. Family Bank, Nairobi
21. Fidelity (Commercial) Bank Ltd, Nairobi
22. Fina Bank Ltd, Nairobi
23. First Community Bank Ltd, Nairobi
24. Giro Commercial Bank Ltd, Nairobi
25. Guardian Bank, Nairobi
26. Gulf African Bank Ltd, Nairobi
27. Habib Bank A.G. Zurich, Nairobi
28. Habib Bank Ltd, Nairobi
29. Housing Finance Co. Ltd, Nairobi
30. I&M Bank Ltd, Nairobi
31. K-Rep Bank Ltd, Nairobi
32. Kenya Commercial Bank Ltd, Nairobi
33. Middle East Bank, Nairobi
34. National Bank of Kenya, Nairobi
35. National Industrial Credit Bank Ltd
36. Oriental Commercial Bank Ltd, Nairobi
37. Paramount Universal Bank Ltd, Nairobi
38. Prime Bank Ltd, Nairobi

49. Southern Credit Banking Corp. Ltd, Nairobi

40. Standard Chartered Bank, Nairobi

41. Trans-National Bank Ltd, Nairobi

42. UBA Kenya Bank Ltd, Nairobi

43. Victoria Commercial Bank Ltd, Nairobi

Source: (CBK, 2016)

## Appendix V: Mergers

| SNO | INSTITUTION                          | MERGED                                    | CURRENT                              | DATE       |
|-----|--------------------------------------|---|--------------------------------------|------------|
|     |                                      | WITH                                      | NAME                                 | APPROVED   |
| 1   | First American<br>Bank               | Commercial<br>Bank of Africa              | Commercial<br>Bank of Africa         | 01.07.2005 |
| 2   | Prime Capital &<br>Credit Ltd        | Prime Bank Ltd                            | Prime Bank Ltd                       | 01.01.2008 |
| 3   | CFC Bank                             | Stanbic Bank                              | CFC Stanbic<br>Bank                  | 01.06.2008 |
| 4   | Savings & Loan<br>Ltd                | Kenya<br>Commercial<br>Bank Ltd           | Kenya<br>Commercial<br>Bank Ltd      | 01.02.2010 |
| 5   | Equitorial<br>Commercial<br>Bank Ltd | Southern Credit<br>Banking<br>Corporation | Equitorial<br>Commercial<br>Bank Ltd | 01.06.2010 |

Source: (CBK, 2016)

## Appendix VI: Acquisitions

| <b>SNO</b> | <b>INSTITUTION</b> | <b>ACQUIRED</b> | <b>CURRENT</b> | <b>DATE</b>     |
|------------|--------------------|-----------------|----------------|-----------------|
|            |                    | <b>BY</b>       | <b>NAME</b>    | <b>APPROVED</b> |
| 1          | Credit Agricole    | Bank of Africa  | Bank of Africa | 30.04.2004      |
|            | Indosuez Ltd       | Bank Ltd        | Bank Ltd       |                 |
| 2          | EABS Bank Ltd      | Eco Bank        | Eco Bank       | 16.06.2008      |
|            |                    | Kenya Ltd       | Kenya Ltd      |                 |
| 3          | K-Rep Bank Ltd     | Centum Ltd      | K-Rep Bank     | 29.10.2014      |
|            |                    |                 | Ltd            |                 |
| 4          | Equitorial         | Mwalimu         | Equitorial     | 31.12.2014      |
|            | Commercial Bank    | Sacco Society   | Commercial     |                 |
|            | Ltd                | Ltd             | Bank Ltd       |                 |

Family bank was fully fledged a commercial Bank in 2006

Charter house Bank was closed in 2006 due to tax evasion and money laundering

Dubai Bank placed under receivership in 2013

Source: (CBK, 2016)