

**EFFECT OF CHIEF EXECUTIVE OFFICER CHARACTERISTICS ON
CAPITAL STRUCTURE OF PUBLICLY LISTED FIRMS IN NAIROBI
SECURITIES EXCHANGE, KENYA**

BY

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DECLARATION

Declaration by the Candidate

This thesis is my original work and has not been presented for a degree in any other University. No part of this thesis may be reproduced without the prior written permission of the author and/or Moi University.

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DEDICATION

This research is dedicated to my family for their understanding and moral support throughout my studies.

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I am most grateful to God, for seeing me through to the completion of my research. It was not an easy task but by His Grace, I have conquered. I am also grateful to my daughters, for giving me humble time, I also thank my husband, without his encouragement I will not have maintained the motivation to finish my work in time.

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ABSTRACT

The firm's capital structure decisions are highly important to the organizations because it has a direct impact on firm value and stockholder's wealth with extant literature indicating that CEO characteristics are critical in determining firm's financial decision making. The theoretical framework suggests that firms select capital structures depending on various aspects which determine the costs and benefits associated with debt and equity financing. However, in many instances, corporate leveraging decisions are closely related to certain observable managerial traits in that the CEO effects can be deduced from leverage decisions. However, its empirical work has lagged behind in the bank-based financial systems in the Sub – Saharan Region. Therefore, this study sought to determine the effect of CEO characteristics on the capital structure of publicly listed firms in Kenya covering the period 2008 - 2014. CEO duality, CEO tenure, CEO gender, CEO age and CEO education were used as independent variables while the capital structure was used as the dependent variable of the study. The study used upper echelon theory, trade-off theory and agency theory. Majorly, descriptive statistics, Pearson correlation analysis and panel regressions were performed. Panel regression analysis was used to determine the effect of CEO characteristics on capital structure. The study found CEO duality had no significant effect on capital structure ($\beta_1 = 6.758$ $t = 0.451$, $p > 0.05$), CEO tenure had a negative and significant effect on capital structure ($\beta_2 = -1.50$ $t = -4.89$, $p < 0.05$), CEO age ($\beta_3 = 0.6018$, $p < 0.05$) had a positive and significant effect on the capital structure while CEO tenure ($\beta_4 = -1.5033$, $p < 0.05$) and CEO education ($\beta_5 = -7.00$, $p < 0.05$) had a negative and significant effect on capital structure. CEO gender indicated a negative and significant effect on capital structure ($\beta_6 = -8.8570$, $p > 0.05$). The study indicates that there is an association between CEO characteristics and capital structure of listed firms in Kenya. It is therefore instrumental for firms to appoint their CEOs based on the duration they have served the company, CEOs to sit in their position for a longer period of time and those who have the requisite knowledge and experience hence they can be tasked with making important decisions pertaining firms' financing. The study would be of great importance to investors, shareholders, managers and policymakers in making knowledgeable decisions and regulations considering the financing patterns and strategies of financial markets in Kenya. Therefore, getting CEOs' characteristics right is vital for the well-being of an organization.

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OPERATIONAL DEFINITION OF TERMS

Capital Structure- The capital structure is how a firm finances its overall operations and growth by using different sources of funds.

Chief Executive Officer (CEO) - describes the position of the most senior corporate officer (executive) or administrator in charge of managing a for-profit organization.

Corporate Financing – decisions relating to the source of funds for funding the company's operations

Corporate Leveraging – Use of debt or debt instruments in the firm's capital structure

Debt ratio – The ratio of debt in the firm's capital structure

Duality- A situation where one individual occupies the positions of both the chairmanship and chief executive office

Equity – Shareholder's equity

Leverage- Use of debt or debt instruments in the firm's finances

Tenure- The period of time an individual occupies an executive position in the company

ACRONYMS AND ABBREVIATIONS

CEO:	Chief Executive Officer
CFO:	Chief Financial Officer
CMA:	Capital Markets Authority
DER:	Debt-to-Equity Ratio
IPO:	Initial Public Offering
MENA:	Middle East and North Africa
NSE:	Nairobi Security Exchange

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter presents the background of the study, statement of the problem, objectives of the study, research hypotheses and significance of the study. Further, it gives the scope of the study and definition of terms.

1.1 Background of the Study

The firm's capital structure decisions are of a high degree of importance to the organizations because it has a direct impact on firm value and stockholder's wealth (Ranti, 2013). These decisions on the type of the capital structure to be adopted by a firm are based on the seminal work of Modigliani and Miller (1958) whose work has driven the discussions and debate on the nature of the capital structure. Thus, the selection of capital structure is one of the significant strategic financial decisions of the firms, since these decisions enhance the investors' return. However, the challenge in the optimization of the firm's capital structure is found in the vulnerability of the firms to economic downturns (Lim, 2012).

The firm's optimal capital structure is a function of several firm-specific characteristics which vary between periods and firms (Ozkan, 2001). The firm's capital structure has severe repercussion to the several facets of the firm. First, it impacts on the firm's competitive strategy and its relationship with the stakeholders in that high leverage, in general, tends to constrain the firm's competitive ability in the marketplace. Debt also influences the management-employee relationship and disrupts customer linkages (Parsons and Titman, 2008).

The capital structure of countries and regions tend to be distinctively different due to the structural differences at the county level factors which influences the financial behaviours of the firms in developing, emerging and developed countries (Kayo & Kimura, 2011). Any changes in the macroeconomic and institutional conditions are likely to affect the dynamics of debt ratios (Botta & Colombo, 2016), and in particular, Erel *et al.*, (2012) who observed that the supply-side effects also determine the firms' financing decisions, while Gungoraydinoglu and Oztekin, (2011) noted that the country's characteristics indirectly influence the capital structure by determining the firms' costs and benefits associated with specific capital structure. This is based on the notion that countries differ in the quality of institutions and these differences may potentially affect the trade-off among the bankruptcy costs and tax benefits, agency costs and information asymmetry costs.

The choice of corporate financing is largely determined by a combination of factors relating to firm characteristics as well as their institutional environment (Fan, *et al.*, 2012). These include both observable and unobservable firm attributes, which specify the linear functions of observable proxies with the most significant attributes including use of collateral, non-debt tax shields, growth, uniqueness, industry classification, size, volatility, and profitability (Parsons and Titman, 2008). This assertion was validated by Fan, *et al.*, (2012) who used an econometric model and indicated that the three important determinants of the firm's corporate financing structure include; firm-specific variables, industry fixed effects and country fixed effects, all of which explain about 19% variations in the use of debt in the capital structure.

Further, a study by Frank and Goyal (2009) identified the following firm and industry factors; industry leverage, market to book assets ratio, tangibility, profit, the log of assets and expected inflation as important determinants of capital structure decisions.

Whereas the industry leverage, tangibility, assets and inflation have a positive significant effect, asset ratio and profits had a negative effect on corporate leverage decisions. In a study, Cronqvist, *et al.*, (2012) observed that 30% of the variation in firms' capital structures is explained by industry fixed effects.

Similarly, Serrasqueiro, *et al.*, (2014) noted that both internal and external factors including level of fixed assets, tax savings, growth opportunities, while, Belkhir, *et al.*, (2016) affirmed that both country and firm-level factors influence the firm's capital structures. Other studies from a cross-national study across 37 countries indicated that firm-level factors explain about two – thirds of the variations in the capital structure with the remaining a third being explained by country-level factors (Gungoraydinoglu & Öztekin, 2011). The vast empirical work by Frank and Goyal (2008) indicated that five firm-level factors including size, profitability, asset structure, growth opportunities and industry affiliations are important determinants of corporate leverage function.

Other studies showing significant divergent view include a study by Botta and Colombo (2016) indicated that firm-level variables directly account for only 6.4% of the variation in market debt ratios; the direct macroeconomic effects explain 5.35%, and institutional variables 6.7%; and lastly, the indirect effect of macroeconomic factors accounts for just below 21% of the explained variation, while institutional characteristics is 60.5%. The overall effect of macroeconomic variables is 26.3%, while the total effect of institutional factors is 67.2%.

This study indicated that the most significant determinant of the capital structure was the country-level institutional factors more than industry affiliation. Thus, country-level institutional factors are likely to have a first-order effect on capital structure choices (Fan, *et al.*, 2012). In the MENA, the country's financial market development is a

significant determinant of firm financial leverage over-and-above firm-level factors while other macro-economic factors include the effectiveness and quality of the country's regulatory systems (Belkhir *et al.*, 2016).

Some of the country institutional factors include, the country's legal system and public governance, presence of established financial markets, the size of government bond markets, the country's taxation system, level of corruption and the preferences of capital suppliers – banks and pension funds tend to explain a significant portion of the variation in leverage and debt maturity ratios among firms in different countries. Among firms in developing economies, Fan *et al.*, (2012) indicated that the size of the government borrowing does not affect the corporate financing decisions of the firm.

Empirical evidence by Bancel and Mittoo (2004) indicated that the major determinants of the capital structure decision of the European managers are similar to those of their US counterparts. Other studies have found significant differences in capital structure decisions of developed economies with indications showing that aggregate debt levels are higher for firms in bank-oriented countries such as Japan, France, and Germany than in the market-oriented countries such as U.S. and U.K. In the Eastern Europe context, the study by Jõeveer (2013) on nine Countries showed that firm-specific factors explain as much as 50% variation in the capital structure decisions of unlisted firms with the remainder of the variation being explained by institutions factors.

Among the Turkish banking sector, Baltacı and Ayaydın (2014) indicated that firm-specific, industry and country factors are important determinants of the corporate financing decisions. However, the capital structure of the financial and non-financial firms is determined by the same drivers. The firm-level factors include firm size which relates positively with the corporate leverage with asset tangibility and profitability

negative correlating with corporate leverage. The industry factors include the industry leverage while the macro-economic factors include GDP growth and inflation.

Other empirical studies on the capital structure decisions among the listed financial firms in China indicated that profitability, firm size, non-debt tax shields, earnings volatility and non-circulating shares influence the firm's capital structure decisions (Lim, 2012). Studies that were done in the Asia Pacific region (Thailand, Malaysia, Singapore and Australia) focused on the firm-specific factors and indicated that firm size has a positive effect while liquidity has a negative effect. Besides, macroeconomic factors such as taxation regimes and growth opportunities have a negative effect on corporate leverage decisions (Deesomsak *et al.*, 2004).

Among listed firms in the Middle East and North African (MENA) region, corporate leverage is positively related to firm size and tangibility and negatively related to profitability, default risk, tax payments, liquid assets and growth opportunities (Belkhir *et al.*, 2016). A study investigating the corporate structure decisions in nine African countries indicated that country macro-economic factors (taxation regimes, economic growth rate, inflation), industry-specific factors (finance and market timing) and firm-specific (access to finance, agency costs, transaction costs) (Taddese *et al.*, Negash, 2013). Robb & Robinson (2014) indicated that there are no clear patterns in the present capital structures because of the differences in the firms and owner characteristics, market conditions and access to financial and human capital. Extant literature on corporate leveraging decisions has contrasting conclusions. For instance, Malmendier *et al.*, (2010) indicated that managerial beliefs and personal experiences explain a significant portion of the variance in the corporate financial policies, both across and within firms.

Bloom and Van Reenen (2006) indicated that firms have distinct managerial practices that impact on the firm performance and therefore, anecdotal evidence by Kaplan, Klebanov and Sorensen (2012) indicated that the CEOs have a significant impact on the success of the firm. On the one hand, some studies have indicated that a firm's CEO does not matter in the capital structure and leverage decision, while other studies have indicated that CEO's personal beliefs and preferences matter in the corporate leveraging decisions Cronqvist *et al.*,(2012)

Parsons and Titman (2008) stated that CEOs' characteristics, such as managerial preferences may affect capital structures, and a similar prediction was provided by Opler and Titman (1994) who stated that differences in management tastes could also explain differences in leverage ratios within an industry. Bertrand and Schoar (2003) argued that CEOs with MBAs are more tolerant of debt, while CEOs from older age cohorts are not. Other studies on the educational qualification indicated that CEO with MBAs predicts the use of corporate leverage in the firm's corporate structure (Cronqvist *et al.*, 2012). According to Graham *et al.*, (2013) CEOs with a financial background are significantly more likely to take on more debt. In contrast to these studies, after analysing personal data on CEOs, Frank and Goyal (2009) conclude that leverage choices are not all that closely connected to readily observable managerial traits, suggesting that they may still be missing identification of crucial CEO characteristics.

In discerning the effect of the behavioural trait of the CEO on the corporate leveraging decisions, Cronqvist *et al.*, (2012) observed that CEO personal home leverage explains significantly higher variations in the corporate capital leverage. Specifically, the CEO's debt tolerance has an estimated effect of 4.9 % on corporate leverage. Other empirical evidence from Malmendier *et al.*, (2010) indicated that several CEO personal characteristics are significant determinants of corporate leverage. Most empirical

studies on the CEO characteristics have been focused on the observable characteristics such as educational level, functional background and age (Kaplan *et al.*, 2012).

A study by Cronqvist *et al.*, (2012) indicated that the CEO's traits and behaviours influence the firm's capital structure decisions. The study found a positive and significant robust relationship between the CEO's home leverage with the firm's corporate leverage activities. Such that, the firm's leverage choices endogenously match the CEO's personal leveraging preferences and activities. Further, Korkeamäki *et al.*, (2017) also observed the impact of personal leveraging decisions of the CEO in corporate leveraging decisions. They affirm a significant relationship between personal leveraging activities and corporate leveraging activities. Based on the findings by Malmendier *et al.*, (2010), the CEO beliefs and perceptions are directly related to the firm's capital structure. This implies that the CEO ultimately determines the firm's financing decisions.

According to Shukeri, *et al.*, (2012) CEOs are more involved in determining the performance of the firm and thus their characteristics will also affect the outcome of the decisions they make thus affecting the performance of the firm. Njenga (2013) reveals that firm-specific factors affecting the capital structure of listed firms in Kenya are asset tangibility, firm's profitability, size of the firm, firm's growth opportunities and finally liquidity of a firm's assets while the macroeconomic factors are economic growth and corporate tax rate.

1.2 Statement of the Problem

Extant literature indicates that CEO characteristics are critical in exercising financial decision making (such as capital structure) in firms (Gulamhussen and Santa, 2011). Empirical studies show that CEO directly influences capital structure decisions of firms

(Haynes and Hillman, 2010). Frank and Goyal (2009) observed that corporate leverage decisions are closely related to certain observable managerial traits and thus can be deduced from leverage decisions. Other empirical evidence suggests that CEO characteristics indeed influence firms' capital structure decisions (Berger *et al.*, 1997; Graham and Harvey, 2001; Bertrand and Schoar, 2003).

Most empirical studies on the CEO characteristics have been focused on the observable characteristics such as educational level, functional background and age (Kaplan *et al.*, 2012). Recent studies on the effect of personal characteristics on capital structure have focused on the behaviour traits of the CEO (Cronqvist *et al.*, 2012). Several studies on the CEO characteristics have examined education, personal characteristics and/or personal characteristics (Custódio and Metzger, 2014) however, these studies were done in the developed and transition economies such as United State, United Kingdom and Russia

Majority studies on corporate structure and leveraging decision have been done in developed economies such as the United State, United Kingdom, Russia. And In emerging economies such as China, Turkey and Brazil among others with developed capital markets. The studies focused on the country – related factors (Fan *et al.*, 2012; Botta & Colombo, 2016; industry-related factors and firm-level factors (Parsons and Titman, 2008). However, there are relatively few studies on corporate leveraging in the developing countries, in particular, the East African Region (Nyamita and Dorasamy, 2014) and MENA region (Belkhir *et al.*, 2016) which have bank-based financial systems. Therefore, this study sought to examine whether CEO characteristics affect the capital structure of firms in Kenya.

1.3 Purpose of the Study

The main objective of the study was to determine the effect of CEO characteristics on the capital structure of listed firms in Kenya.

1.4 Specific Objectives

1. To determine the effect of CEO duality on the capital structure of listed firms in Kenya.
2. To establish the effect of CEO tenure on the capital structure of listed firms in Kenya.
3. To assess the effect of CEO gender on the capital structure of listed firms in Kenya.
4. To determine the effect of CEO age on the capital structure of listed firms in Kenya.
5. To establish the effect of CEO education on the capital structure of listed firms in Kenya.

1.5 Research Hypotheses

H₀₁: There is no significant effect of CEO duality on the capital structure of listed firms in Kenya.

H₀₂: There is no significant effect of CEO tenure on the capital structure of listed firms in Kenya.

H₀₃: There is no significant effect of CEO gender on the capital structure of listed firms in Kenya.

H₀₄: There is no significant effect of CEO age on the capital structure of listed firms in Kenya.

H₀₅: There is no significant effect of CEO education on the capital structure of listed firms in Kenya.

1.6 Significance of the Study

Since the main purpose of the study was to determine the effect of CEO characteristics on the capital structure of firms listed in the Nairobi stock exchange. The study will be useful to;

The stakeholders who includes the employees, customers and the community who are affected by the firm's action. The optimal balance in the firm's capital structure will likely determine the firm's continuity and survival in the long – run and therefore the study will contribute to the understanding of the effects of the capital structure on the firm's survival.

The management of firms who are heavily involved in the determination of the firm's capital structure and therefore the study will enable them to gain a better understanding of the effects of the corporate leveraging activities on the firm's overall performance.

The shareholders of the firm that seek returns and therefore the knowledge generated by the study will inform them of the value generated by the firm's activities.

Investors or participants in the financial markets that seeks firm's corporate leveraging activities and therefore the study will help in the selection of the most optimal investments decisions.

The policymakers that seek to generate policies governing the firm's activities and operations in the market would benefit from the study because the study will offer insights into the firm's corporate leveraging activities and by extension on how these activities can help in the development of the financial markets.

1.7 Scope of the Study

The study was carried out in selected listed firms in the Nairobi Security Exchange in Nairobi City, Kenya. There is close to 64 listed firms in Kenya, however, the study focused on 37 listed firms which had been listed before 2006.

The study adopted a panel approach with data having both cross-sectional and time dimensions. The study collected data from the year 2008 to 2014 from the 37 firms.

During data collection, the study focused on the characteristics of the chief executive officer because the study variables sought to determine how these demographical characteristics can influence the firm's capital structure.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter reviews literature related to the study, focusing generally on the concept of CEO characteristics and the concept of capital structure. It also focuses on the past studies and related articles and publications about the variables under study, CEO duality on capital structure decision making, CEO tenure on capital structure decision making, CEO gender on capital structure decision making, CEO age on capital structure decision making and CEO education on capital structure decision making.

2.1 Study Concept

2.1.1 Concept of Capital Structure

Capital structure is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity (Al-Najjar & Hussainey, 2011). The capital structure deals with how firms finance its overall operations and growth by using different sources of funds. The capital structure reflects the firm's financing strategy, for example, its overall target debt-equity ratio, and also financing tactics, for example, the design and timing of a particular debt issue (Meyers, 2003). Brealey and Myers (2003) define capital structure as the firm's mix of different securities used in financing its investments. They observe that a firm can issue dozens of distinct securities in countless combinations, but it tries to find the particular combination that maximizes its overall market value. According to Graham, Leary, and Roberts, (2015) capital structure is about overall operations and growth by using different sources of funds. The firm's capital structure initially consists of equity, infinite maturity and non-callable long-term debt, and non-discretionary short-term debt that is associated with

the firm's working capital requirements such as the financing of inventories, accounts receivable, and employee wages.

The capital structure shows the percentage of debt and equity in the balance sheet of a company and this tends to differ according to the firm (Rajan, & Zingales, 1995). A capital structure is considered to be good when it has as a consequence a fall in the cost of capitals (Myers, 2001). Benito (2003) argued that managers will take the debt-equity ratio as a signal, by the fact that high leverage implies higher bankruptcy risk (and costs) for low-quality firms. Since managers always have an information advantage over the outsiders, the debt structure may be considered as a signal to the market. It is argued that, in a company's capital structure, equity consists of a company's common and preferred stock plus retained earnings (Muiruri and Bosire, 2015)

Capital structure puts into perspective how a firm finances its operations; this can either be through debt or equity capital or a combination of both. Capital structure theory as attributed to Modigliani and Miller concluded that it doesn't matter how a firm finances its' operations and that the value of a firm is independent of its' capital structure making capital structure irrelevant (Myers, 2001). The study is based on the assumption that there were no brokerage costs, earnings before interest and tax were not affected by the use of debt and that investors could borrow at the same rate as corporations and lastly there was no information asymmetry (Altman & Hotchkiss, 2010).

Past studies have been equating a company's debt with its liabilities (Shaked and Altman, 2016). Among financial analysts and investment research services, there is no universal agreement as to what constitutes a debt liability. For many analysts, the debt component in a company's capitalization is simply a balance sheet's long-term debt. This definition is too simplistic. Investors should stick to a stricter interpretation of debt

where the debt component of a company's capitalization should consist of the following: short-term borrowings notes payable, the current portion of long-term debt, two-thirds (rule of thumb) of the principal number of operating leases and redeemable preferred stock. Using a comprehensive total debt figure is a prudent analytical tool for stock investors.

The study on capital structure attempts to explain the mix of securities and financing sources used by companies to finance investments (Myers, 2001). Park & Jang, (2013) referred capital structure as the way in which a firm finances its operations which can either, be through debt or equity capital or a combination of both. According to Graham and Harvey (2001), 81% of firms consider a target debt ratio or a target range when making their financing options. Other studies have empirically analysed how long it takes companies that try to adjust their capital structures towards their desired capital structure target levels (Antoniou *et al.*, 2008; Fama & French, 2002; Flannery and Rangan, 2006). Depending on the regression model and technique used, these studies typically find that companies adjust their capital structures and with a speed of around 10-30 per cent per year towards their capital structure targets.

2.1.2 Concept of CEO Characteristics

Although management accounting and control systems often fall into the CFO's area of responsibility, CEOs will also likely exert a decisive influence on the design of such systems. This is to be expected, as control systems, which are geared towards directing management and employee behaviour (Malmi and Brown, 2008), are used by (and thus of interest to) not only CFOs but also CEOs, who are at the top of the corporate hierarchy and who may wish to ensure that subordinates act in their interest. Thus, CEOs (and their characteristics) can be expected to impact on systems designed to support this endeavour.

Using a sample from Spanish hospitals, Naranjo-Gil and Hartmann (2007) found that CEO backgrounds (in terms of education and experience) are significantly associated with the design of management control systems. CEOs with a predominantly administrative (business-related) background are positively associated with higher use of financial information.

2.2 Theoretical Framework

There have been some theories on the financing pattern of the firms and research done to verify the existence of optimal capital structure. The trade-off theory was developed by Kraus and Litzenberger in 1973 as a response to the inadequacies of the theory on the capital structure by Modigliani and Miller in 1963. Further, the limitations of the trade-off theory led to the development of the pecking order theory by Myers and Majluf in 1984 as a complementary theory on the pecking order theory. Previous research has identified the firm-specific stickiness in capital structure indicating that there is not a clear prediction of either theory (Malmendier *et al.*, 2010). The traditional theories emphasize firm, industry and market forces like the trade-off between tax-deductibility of interest payments and bankruptcy costs, or asymmetric information between firms and the capital market (Myers, 1984; Myers and Majluf, 1984).

2.2.1 Upper Echelon Theory

In the last decades, academic interest in the top managers of business organizations has greatly increased. A key theory that has accompanied and most likely fostered this upsurge in interest in top managers is upper echelons theory (Carpenter *et al.*, 2004; Finkelstein *et al.*, 2009; Nielsen, 2010; Quigley and Hambrick, 2015). It is argued that the organization is a reflection of its top managers (Hambrick, 2007; Hambrick and Mason, 1984; Quigley and Hambrick, 2015).

According to upper echelons theory, managerial characteristics also affect organizational outcomes (Hambrick and Mason 1984; Hambrick, 2007; Quigley and Hambrick, 2015). This theory links observable characteristics such as top management age, tenure, functional track and other career experiences, formal education and management team heterogeneity to the nature of managerial processes and organizational outcomes. As corporate entrepreneurship can be induced as a top-down strategy, it is imperative to take top management team characteristics into account.

Upper echelon theory suggests that entrepreneur characteristics will make decisions that are consistent with their cognitive base (Hambric and Mason, 1984; Quigley and Hambrick, 2015) or entrepreneur (Finkelstein and Hambric, 1996), which consists of two elements: psychological characteristics (including values, cognitive models, and other personality factors) and observable experiences. A fundamental principle of upper echelons theory is that observable experiences (demographic measures) are systematically related to the psychological and cognitive elements of executive orientation hence organization innovation performance. Upper echelons research employs the use of observable demographic characteristics as proxy measures of executive orientation.

2.2.2 Pecking Order Theory

The theory was proposed by Myers and Majluf in 1984 who suggested that the consequences of asymmetric information compel the firm to develop a strict hierarchy of sourcing for funds. Higher in the hierarchy is the use of internal funds, followed by the issuance of debt until the capacity is exhausted and finally, equity is used as the last option. Thus, more profitable firms should rely mainly on internal funds (Botta& Colombo, 2016). The pecking order theory posits due to adverse selection, firms first consider the use of retained earnings, then debt and lastly equity financing (Myers,

1984). Thus, there is a strict ordering to the firm's corporate financing decisions. Empirically, however, other factors appear to be more important (Frank and Goyal, 2008).

According to the pecking order theory, firms borrow rather than issue equity when internal cash flow is not sufficient to fund capital expenditure (Myers, 2001). Retained earnings, as the internal funds, dominated the first place in the corporate financing preference, followed by debt financing and equity financing (Myers and Majluf, 1984). A company's capitalization describes the composition of a company's permanent or long-term capital, which consists of a combination of debt and equity (Pishdar, & Amiri, 2016). A healthy proportion of equity capital, as opposed to debt capital, in a company's capital structure is an indication of financial fitness.

Pecking Order theory takes account of the asymmetric information and the existence of transaction costs. Since internal funding does not incur any transaction costs, companies prefer internal financing to minimize financing cost (Lim, 2012). Firms with less collateral face higher information costs and, thus, prefer debt to equity (Baltacı and Ayaydın, 2014). Adverse selection implies that retained earnings will be preferred more than debt and debt is preferred more than equity, however, the ordering stems from a variety of sources, including agency conflicts and taxes (Frank & Goyal, 2008).

Pecking order models can be derived based on adverse selection considerations, agency considerations, or other factors. The two common features that underlie the pecking order theory are; the linearity of the firm's objective function which implies that cost serves as the basis used to arriving at results and that the model is relatively simple in its usage (Frank & Goyal, 2008).

2.2.3 Trade-off Theory

The theory was proposed by Kraus and Litzenberger in 1973 who proposed that firms tend to balance the costs and benefits of issuing debt and equity and by extension choose the optimal leverage that maximizes the firm's value. Thus, more profitable firms should hold more debt in order to reduce the agency costs associated with high levels of free cash flow (Botta & Colombo, 2016). The trade-off theory states that the firms seek to balance the tax savings arising from the issuance of debt against the costs of bankruptcy (Myers, 1984). Thus, the firm's optimal debt ratio is determined by the trade-off between the cost of bankruptcy and tax advantage due to borrowing. Therefore, firms would prefer debt over equity until the likelihood of financial distress increases (Lim, 2012). The theory implies that leverage exhibits target adjustment so that deviations are gradually eliminated (Frank & Goyal, 2008). In its simplest form, managers of firms are continuously optimizing the leverage ratio as to maximize the value of the firm (Lim, 2012).

The original version of the theory grew out of the debate over the Modigliani– Miller theorem (Frank & Goyal, 2008) and its classical version of the hypothesis goes back to Kraus and Litzenberger, (1973) who considered a balance between the dead-weight costs of bankruptcy and the tax-saving benefits of debt and often the agency costs are also included in the balance. The trade-off theory of capital structure argues that capital structure is determined by the trade-off between the benefits of debt tax shields and the costs of financial distress (Miller, 1977; Öztekin, 2015). The theory gives alternatives to the various corporate choices that a corporation experience.

According to Hovakimian, *et al.*, (2004), trade-off theory of corporate capital structure is built around the concept of target capital structure, which balances various costs and benefits of debt and equity. The benefits of debt include, for example, the tax-

deductibility of interest and the reduction of free cash flow problems whereas the costs of debt include potential bankruptcy costs and agency conflicts between stockholders and bondholders (Fama and French, 2002). At the optimum leverage, the benefit of using debt finance just offsets the cost.

The theory states 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 e.g. staff leaving, suppliers demanding disadvantageous payment terms and bondholder or stockholder infighting. 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 (Fama, 2002; Lambrecht & Myers, 2015).

The theory has been further explored by several authors who have suggested that the theory as it stands does not sufficiently explain the firm's optimal capital structure. Thus, two versions of the theories, the static and dynamic have been proposed (Malmendier *et al.*, 2010). The static trade-off theory suggests that firms have a target debt ratio and try to move towards this target. The dynamic trade-off theory suggests that firms choose their capital structure or leverage ratio by trading off the benefits and costs of debt. 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. The dynamic versions of the trade-off theories posit that companies would undo the effects that random shocks have on

their capital structures by actively re-adjusting them towards their target levels (Reinhard & Li, 2010).

2.3 Empirical Review

2.3.1 Effect of CEO Duality on Capital Structure

The empirical studies on CEO duality are based on the concept that an individual occupies both the CEO and Chairman. This model of governance structure is common in both British and American firms. These studies on the CEO duality seek to establish the effect of an individual occupying two positions of CEO and chairmanship can influence the organizational outcomes. For instance, Liao, Mukherjee and Wang (2015) the separation of the two positions is often positively associated with higher use of debt in the firm's capital structure. Abor and Biekpe (2007) examine the relationship between CEO duality and capital structure decisions of Ghanaian Small and Medium Enterprises by using multivariate regression analysis. The results provided empirical evidence that a negative relationship between CEO duality and leverage ratios of SMEs. This impact is based on the fact that the CEO is able to make decisions on their capital structure more clearly. It's argued that the dual leadership may reduce information asymmetry problems and lead to higher access to external debt thus affecting its capital structure framework (Westphal *et al.*, 2010).

According to Hussainey and Al-Nodel (2009), there is a positive relationship between CEO duality and capital structure. They argued that boards with CEO duality follow a policy of higher levels of gearing to enhance firm value especially when these are entrenched due to greater monitoring by regulatory authorities. It is also argued that boards with CEO duality may find difficulty in arriving at a consensus in the decision which can ultimately affect the quality of corporate governance and will translate into

higher financial leverage levels. Abor and Bikpie (2005) and Hassan and Butt (2009) showed a negative influence of the board of director's duality on debt to equity ratio (DER) as a measure of capital structure. In contrast, Hussainey and AlNodel (2009) found that CEO duality has a positive influence on DER with consequent higher corporate leverage level. Other studies (Al-Najjar and Hussainey, 2009; Al-Najjar and Hussainey, 2000) found that the duality of the board does not have a significant influence of the firm's Debt to Equity Ratio (DER).

The studies show that CEO duality has both positive and negative effects depending on the context. These studies have been done on several contexts including the Middle Eastern regions (Al-Najjar and Hussainey, 2009), Asian regions (Liao *et al.*, 2015) and America (Westphal *et al.*, 2010). The arguments on the CEO duality are based on the nature of corporate governance structure and thus in the context where duality is allowed then the impact can be certain while in areas where there is no dual position in the executive structure, and then there is no impact. These arguments against dual leadership or in favour of separate leadership are largely based on agency theory.

2.3.2 Effect of CEO Tenure on Capital Structure

The extant literature on the CEO tenure is based on the length of the tenure of the CEO and this depends on the corporate governance structures. This empirical literature has shown that CEOs tend to make fewer debt-equity ratio changes in strategy as their tenure increases. Presumably, then, CEOs that have illustrated consistent firm performance would likely enjoy long periods of tenure (Goldstein and Leland, 2001). According to Allgood and Farrel, (2003), long tenures increase the credibility and independence of leaders and make them overconfident and influence the firm's capital structure. The tenure improves the experience of the CEO, which consequently decreases his reliance on subordinates and so makes delegation of decisions including

leverage less frequent (Frank & Goyal, 2007; Graham *et al.*, 2010). Therefore, a positive relationship between tenure and capital structure is expected.

Empirical researches have demonstrated the positive relation between CEO tenure and the quality of financial reporting (Chtourou *et al.*, 2001). Additionally, Myers, (2001) showed a negative relationship between executive firm tenure and capital structure. Some may, however, argue that when the times are good in terms of a boom period, or perhaps even stable periods, a change in strategic direction may not be necessary since the firm would continue to grow with the market. According to Chuluun *et al.*, (2014) board tenure is positively linked to corporate debt yield. This shows that effective supervision is most probably caused by the company board's abilities, implying that a board with a long tenure tends to run good supervision to achieve the company's goals (Nugroho & Eko, 2012). Beasley (1996) finds the likelihood of financial reporting fraud is negatively related to the average tenure of non-executive directors. Furthermore, it is argued that the average tenure of outside directors is negatively associated with the level of earnings management (Chtourou *et al.*, 2001).

The studies show that CEO tenure has a significant correlation with corporate financing such that longer-tenured executives tend to have a higher debt-to-equity ratio. The empirical evidence from have been done on developed capital markets such as those of Europe (Chuluun, Prevost&Puthenpurackal,2014) and American (Chtourou *et al.*, 2001; Myers, 2001) have indicated a positive relationship to the level of debt in the firm's capital structure. The studies have elaborately considered developed with more emphasis on the developed capital markets. The differences in the context and techniques confer other researchers with an opportunity for studies in the nascent capital market in Sub – Saharan Africa.

2.3.3 Effect of CEO Gender on Capital Structure

The empirical studies on the gender of the CEO and capital structure are based on the differences in attitudes towards risk and in risk-related behaviour between male and female executives. These studies have been studied in economics and psychology literature (Cadsby and Maynes, 2005; Eckel and Grossman, 2004; Francoeur *et al.*, 2008 and Shehata, 2013). More recently, there has been a significant increase of women in corporate executive offices. With this increase, researchers have started to investigate the impact of gender on various corporate decisions, such as capital structure decisions, merger and acquisition decisions and going public decisions (Huang and Kisgen, 2008).

In another study, Huang and Kisgen (2013) examined and compared the investment decisions made by females and males executive. The study indicated that male executives are more likely to issue debt more than their female counterparts thus the findings of the study showed that males are more likely to alter the firm's capital structure through the issuance of more debt instruments. According to Westphal *et al.*, (2016) firm's managerial traits are an important determinant of the firm's capital structure decisions. Based on the econometric techniques, the study indicated that female CEOs have lower leverage levels, less earning volatility and improved survival chances. There are systematic differences in the choice of financial reporting policies between female and male executives. Specifically, female CEOs follow a more conservative approach in their financial reporting compared to their male counterparts. After the change from male to female, there will be an increase (decrease) in the debt-equity ratio of the firm (Dezsö and Ross, 2012).

Schubert *et al.*, (1999) and Kruse and Thompson (2003) find no systematic differences in risk attitudes towards capital structure decisions for their subjects. Evidence from field studies also demonstrates gender differences in risk-related behaviour. For

example, study betting decisions on capital structure, and they find that women are more risk-averse than men in their decision skills. Using data from the Survey of Consumer Finances, Jianakoplos and Bernasek (1998) find single women are more risk-averse than single men in capital structure decisions. Eckel and Grossman (2008), examined gender differences in the allocation of defined contribution plan assets, and they find women are less likely to hold their assets mostly in stock than men.

More recent studies begin to investigate whether the gender of corporate executives or directors affects corporate decision-making. Erhardt, *et al.*, (2003) investigate how gender differences of CEOs affect various corporate decisions. They find that firms under the control of female CEOs grow slower than firms under the control of male CEOs. Besides, female CEOs are less likely to make significant acquisitions and are less likely to issue debt. Furthermore, the capital structure adjusts the speed of under the control of female executives is slower than that under the control of male executives.

Recent studies also attempt to link the gender of top executives to capital structure and investment-cash flow sensitivity, and how the market reacts to the new appointments of female executives or directors. For instance, Welbourne *et al.*, (2007) examine the effect of having women on the top management teams of IPO firms on short term and long-term firm performance. They find the presence of women executives have a positive association with the firms' short-term performance, 3-year stock price growth, and growth in earnings per share. Ben-David, Graham *et al.*, (2007) investigate how the gender of CEO executives affects investment-cash flow sensitivity. They find corporate investments made by male CEOs are more sensitive to cash flow, particularly in the equity dependent companies, compared to investments made by female CEOs.

The empirical studies show that the gender of the CEO has a significant correlation with corporate financing through the difference between the risk inclinations. Male executives tend to have a high-risk inclination (Huang and Kisgen, 2013) as compared to the female executives who are risk-averse (Faccio *et al.*, 2016). Thus, male executives are more likely to issue more debt when faced with corporate financing decisions as opposed to their female counterparts. This empirical evidence has been gathered from a developed country where their capital markets are vibrant. These studies have elaborately considered developed countries with more emphasis on the developed capital markets. The differences in the context confer other researchers with an opportunity for studies in the burgeoning capital market in Sub – Saharan Africa.

2.3.4 Effect of CEO Age on Capital Structure

Extant literature on individual risk-taking behaviour shows that demographic and socioeconomic factors influence individual risk tolerance, e.g., age of the individual. That is, a CEO's ability and willingness to bear risk could be shaped by his or her age thus influencing his capital structure decision-making skills. It is generally believed that males are more risk-tolerant than females and that risk-taking tends to decrease with age and increase with education level, higher levels of income, wealth, professional experience, and sophistication (Leland, 2001).

According to Chen (2014), there is a significant relationship between capital structure and age plus experience of top employees. Firms with older and qualified board membership have low leverage or debt ratio. According to Yasser *et al.*, (2015), there is a significant relationship between capital structure and CEO age. The finding concurs (Abor, 2000) that firms with older CEOs generally have low gearing levels. He argued that older CEOs exert pressure on managers to follow lower gearing levels and enhance firm performance.

Executives in these firms work in a hierarchy with the CEO in most cases an older individual at the top. As a result, the CEO is the most powerful individual on the board regarding capital structure decision making (Graham *et al.*, 2010; Graham *et al.*, 2015). It is argued that age difference affects the capital structure decisions of managers and younger managers, more frequently select to operate in a more competitive environment than older do (Hafsi & Turgut, 2013). However, the difference still exists not due to different risk aversion, but because young managers are more overconfident and there are age differences in preferences for performance in a competitive environment.

Extant literature on the age of the CEO is shown to significantly correlate with the corporate financing decision through the difference between the experience effects. The empirical studies have been done on developed capital markets where the capital markets are vibrant as opposed to the country which has bank-based systems. These studies have elaborately considered developed with more emphasis on the developed capital markets. The differences in the context confer other researchers with an opportunity for studies in the burgeoning capital market in Sub – Saharan Africa.

2.3.5 Effect of CEO Education on Capital Structure

The educational background of the CEOs is believed to be positively related to debt, implying that better-educated owners do have greater possibilities of borrowing (Abor, 2008). The studies on the effect of the education levels have focused mainly on the graduate level of education or MBA degrees. For instance, Kaplan *et al.*, (2012) noted that education levels are considered as key determinants of corporate decisions. This would be particularly important if the owner had no book-keeping knowledge. According to Green *et al.*, (2007) the level of education appears to have an important positive impact on micro and small enterprises' debt-raising capacities. There is no

consistent, long-term relationship between CEO education and capital structure decision. Furthermore, there is no strong evidence of a relationship between CEO education and capital structure decision, while it is weak—and, perhaps, statistically insignificant.

Ting *et al.*, (2015) who studied Malaysian firms and found that CEO education level positively correlated with leverage. Cronqvist, *et al.*, (2012) observed that CEOs with MBAs are more comfortable with debt and thus they aggressively use more debt. Within Eastern Europe, Rakhmayil and Yuce (2009) observed firms ran by CEOs with MBA degrees, graduates from highly reputable business schools and with have professional certification tend to use higher leverage when compared to their counterparts.

Regarding the educational levels of the CEOs, Cronqvist, *et al.*, (2012) indicated that CEOs with MBAs are more comfortable with debt, while CEOs from older age cohorts are not. In another study, Custódio and Metzger (2014) observed that educational levels have a significant role in the use of debt in corporate financing. The study indicated that CEOs with financial management backgrounds tend to use more debt notwithstanding the credit conditions.

The empirical studies on the education level of the CEO have shown a significant positive association with the corporate leverage decision such that executives with MBAs or graduate – level are more likely to issue debt instruments. The empirical studies have been done on developed capital markets where the capital markets are vibrant as opposed to the country which has bank-based systems. These studies have elaborately considered developed with more emphasis on the developed capital

markets. The differences in the context confer other researchers with an opportunity for studies in the burgeoning capital market in Sub – Saharan Africa.

2.3.6 Firm and Board Size on Capital Structure

The firm's board of directors provides additional provisions to the shareholders as well as other investors of the firms because it serves as an effective monitoring mechanism to reduce the agency conflict. It imposes more stringent monitoring by shareholders by increasing involvement and the power of the Board of Directors in the firm's decision making (Saad, 2010). However, the effect of board size on firm's internal mechanism is varied. For instance, large boards are less effective and are easier for the CEO to control, while smaller boards tend to reduce the possibility of free riding by, and increase the accountability of, individual directors.

The empirical evidence indicates that a positive relationship exists between size and firm financing (Cassar & Holmes, 2013). Firm size has a positive impact on leverage that has been documented in many empirical studies for other countries (González & González, 2011). Studies on the effect of the firm size on the firm's capital structure have indicated that firm size positively correlates with capital structure. the presence of fixed costs of external financing that lead to infrequent restructuring and create a wedge between small and large firms, such that small firms choose higher leverage at the moment of refinancing to compensate for less frequent rebalancing (Kurshev and Strebulaev 2015). The higher expected costs of future financing also imply that firms default sooner, at a higher level of asset value. As firm size increases, fixed costs become relatively less important and thus expected waiting times between refinancing are shorter and leverage at refinancing is closer to the no-fixed-cost case (Kurshev and Strebulaev 2015).

Cross-sectionally, it has been consistently found that large firms in the US tend to have higher leverage ratios than small firms. International evidence suggests that in most, though not all countries leverage is also cross-sectionally related positively to size (González & González, 2011). Intuitively, firm size matters for a number of reasons. In the presence of non-trivial fixed costs of raising external funds large firms have cheaper access to outside financing per dollar borrowed. Similarly, larger firms are more likely to diversify their financing sources. Alternatively, size may be a proxy for the probability of default, for it is sometimes contended that larger firms are more difficult to fail and liquidate, or, once the firm finds itself in distress, as a proxy for recovery rate. Size may also proxy for the volatility of firm assets, for small firms are more likely to be growing firms in rapidly developing and thus intrinsically volatile industries. Yet another explanation is the extent of the wedge in the degree of information asymmetry between insiders and the capital markets, which may be lower for larger firms, for example because they face more scrutiny by ever-suspicious investors (González & González, 2011).

2.4 Conceptual Framework

The conceptual framework defines the research problem and guides the subsequent discussions on the research topic. It is an approach to research that is informed by multiple research traditions and design strategies (Depoy and Gitlin, 2011).

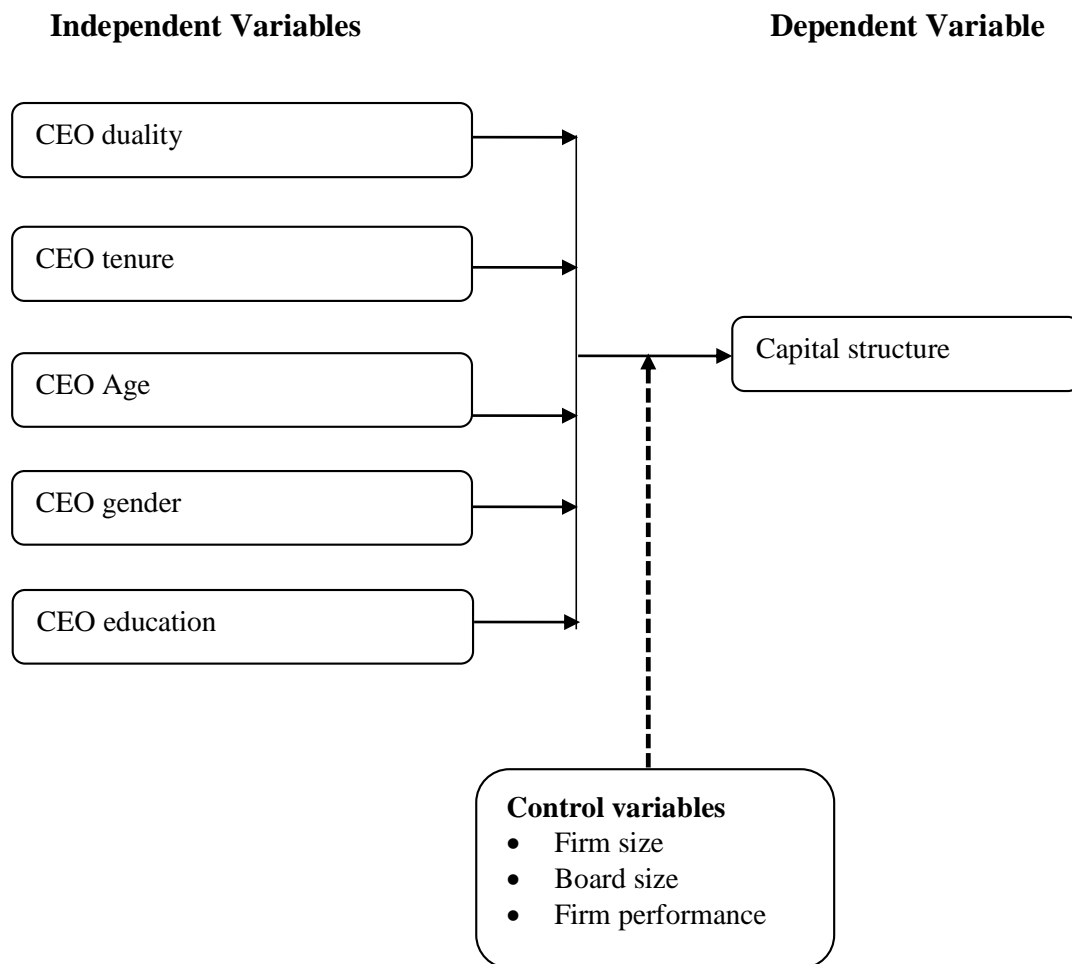


Figure 2.1: Conceptual Framework

Source (Researcher, 2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Overview

The chapter dwells with methodology and design aspects as applied throughout the study. The content for the chapter includes; the adopted research philosophy, the study design, the population, the sample size, the research instruments, validity of the research instruments, the data collection procedures, and data analysis techniques that were used.

3.1 Research Design

Explanatory research designs go beyond description and attempt to explain the reasons for the phenomenon. This study adopted an explanatory design as it sought to understand the trait and mechanisms of the relationship and association between the independent and dependent variable. The study is explanatory as it seeks to establish causal relationships between variables by emphasizing on studying a situation in order to explain the relationships between variables and furthermore. The use of description in the study is likely to be a precursor to explaining (Saunders *et al.*, 2009).

3.2 Target Population

According to NSE (2015), there are approximately 64 listed firms in 11 categories (Table 3.1). The target population for the study was made of all listed companies at the Nairobi Securities Exchange.

Table 3.1: Company Listing at the Nairobi Stock Exchange

AGRICULTURAL	COMMERCIAL AND SERVICES
Eaagads Ltd	Express Ltd
Kapchorua Tea Co. Ltd	Kenya Airways Ltd
Kakuzi Ltd	Nation Media Group
Limuru Tea Co. Ltd	Standard Group Ltd
Rea Vipingo Plantations Ltd	TPS Eastern Africa (Serena) Ltd
Sasini Ltd	Scangroup Ltd
Williamson Tea Kenya Ltd	Uchumi Supermarket Ltd
AUTOMOBILES AND ACCESSORIES	Hutchings Biemer Ltd
Car and General (K) Ltd	Longhorn Kenya Ltd
Sameer Africa Ltd	Atlas Development Services
Marshalls (E.A.) Ltd	CONSTRUCTION AND ALLIED
BANKING	Athi River Mining
Barclays Bank Ltd	Bamburi Cement Ltd
CFC Stanbic Holdings Ltd	Crown Berger Ltd
I&M Holdings Ltd	E.A.Cables Ltd
Diamond Trust Bank Kenya Ltd	E. A. Portland Cement Ltd
Housing Finance Co Ltd	ENERGY AND PETROLEUM
Kenya Commercial Bank Ltd	KenolKobil Ltd
National Bank of Kenya Ltd	Total Kenya Ltd
NIC Bank Ltd	KenGen Ltd
Standard Chartered Bank Ltd	Kenya Power & Lighting Co Ltd
Equity Bank Ltd	Umeme Ltd
The Co-operative Bank of Kenya Ltd	INVESTMENT
INVESTMENT SERVICES	Olympia Capital Holdings Ltd
Nairobi Securities Exchange Ltd	Centum Investment Co Ltd
MANUFACTURING AND ALLIED	Trans-Century Ltd
B.O.C Kenya Ltd	Home Afrika Ltd
British American Tobacco Kenya Ltd	Kurwitu Ventures
Carbacid Investments Ltd	TELECOMMUNICATION & TECHNOLOGY
East African Breweries Ltd	Safaricom Ltd
Mumias Sugar Co. Ltd	INSURANCE
Unga Group Ltd	Jubilee Holdings Ltd
Eveready East Africa Ltd	Pan Africa Insurance Holdings Ltd
Kenya Orchards Ltd	Kenya Re-Insurance Corporation Ltd
A.Baumann Co Ltd	Liberty Kenya Holdings Ltd
Flame Tree Group Holdings Ltd	British-American Investments Co Ltd
REAL ESTATE INVESTMENT TRUST	CIC Insurance Group Ltd
StanlibFahari I-REIT	

Source: Nairobi stock exchange (2018)

3.3 Sampling Size and procedure

A sample design is a definite plan for obtaining a sample from the sampling frame and it is a technique or the procedure the researcher adopts in selecting some sampling unit from which inferences about the population is drawn. Sampling design is determined before any data are collected. This enables a researcher to derive detailed data at an affordable cost in terms of time, finances and human resource (Mugenda & Mugenda, 1999). Further, Patton (2002) argued that the sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what is useful, what credibility does it have and what can be done with available time and resources. The study used the census approach on all listed firms in the Nairobi Security Exchange. Further, Depoy and Gitlin, (2011) suggest that the census is used when the sample size is small, it may be possible to collect and analyse data from every possible case or group member.

Table 3.2: CMA Capital Markets Bulletin

Year	Number of listed firms	Companies Introduced	Firms Suspended	Companies delisted
2008	55	Safaricom Ltd Co-operative Bank	A. Baumann	Unilever(K) ltd
2011	58	CFC Holdings TransCentury Limited British America	CMC holding Hutchings Biemer Ltd	-
2012	61	Longhorn Publishers CIC Insurance	-	-
2013	61	Home Africa ltd StanlibFahari REIT	City Trust ltd Rea vipingo	Access Kenya
2014	64	Kurwitu venture Flame Tree Group Nairobi Security Exchange Umeme Ltd	Uchumi Ltd Mumias Ltd	Marshalls Ltd

Source: (CMA, Q1/2015)

The study looked at 37 firms from 64 listed companies, in Nairobi security exchange, as per the Table 3.2 above, the firms which issued their initial public offers (IPOs) after

2008 and those that were delisted or suspended between 2008 and 2014 were excluded to offer consistency, precision, completeness and robustness of the result.

3.4 Data Collection instruments

Since the variable in question is secondary in nature, the study used documentary analysis. Documentary secondary data include written materials such as notices, communication and/or websites, reports, minutes, books and journals, correspondence (including emails), minutes of meetings, reports to shareholders, diaries, transcripts of speeches and administrative and public records as well as organizations' databases (Saunders *et al.*, 2009). The study reviewed the annual companies' financial summaries and reports from the NSE in the corresponding years. Some of these summaries and report were found in the organizational databases and public records as reports to shareholders.

The data was collected procedurally in several phases. In the first phase, the researcher obtained clearance from the university which enabled her to proceed to the field for data collection. The final phase involved data mining from the organizational databases from the company's websites with a view of locating financial reports from the site. These data obtained were segregated according to their appropriateness to the research objectives.

3.4.1 Measurement of Variables

Capital structure was measured as ratio of debt to equity (Rafique, 2010) while CEO duality is equal to 1 if the CEO also chairs the board in the year before the issue and 0 otherwise (Kang, 2013): CEO tenure was measured by counting the years that a chief executive officer has been in office (Wulf *et al.*, 2010). CEO age was measured using the number of years (age) (Dagsson, 2011). CEO education was measured by the level

of education (Yasser, *et al.*, 2015) and finally, gender was measured using a dummy variable, where a male was coded as 1 and female 0 (Faccio, *et al.*, 2016). Firm size was measured by the log of the firm's total assets while the board size was measured by the total number of directors the company has (Ebaid, 2009).

3.5 Data Analysis and Presentation

The data collected for the study had two dimensions of both time series and cross-section. The time-series data are data collected over a period of time on one or more variables and is associated with a particular frequency of observation or frequency of collection of data points. The cross-sectional data are data on one or more variables collected at a single point in time. The study collected panel data which had both time series and cross-section dimension.

Once data had been coded, the researcher principally analysed through the use of descriptive and inferential statistics. Descriptive analysis is the elementary transformation of data in a way that describes the basic characteristics such as central tendency, distribution, and variability. First, the information that lends itself to the use of frequencies was analysed using frequencies distribution and percentages. For the data obtained in the ratio scale, the researcher used measures of central tendencies such as means, standard deviation statistics and measures of dispersion such as skewness, (Zikmund *et al.*, 2010; Depoy and Gitlin 2011). Once the descriptive analysis had been done, the information was presented in tabular format. Once the descriptive analysis had been completed, the study used the following inferential statistics: correlation and regression analysis (Garson, 2013).

3.5.1 Diagnostic Tests

Model Selection

The Hausman Specification tests aids in the selection of the choice between the fixed-effects model and the random-effects model. The null hypothesis is that the preferred model is random effects while the alternate hypothesis is that the preferred model is the fixed-effects model. Essentially, the tests look to see if there is a correlation between the unique errors and the regresses in the model.

Tests for Random Effects

The LM test aids in the determination of the selection between a random effect's regression and a simple OLS regression. The null hypothesis in the LM test is that variances across entities are zero. This is no significant difference across units (i.e. no panel effect).

Testing for heteroskedasticity

The test for homoscedasticity is carried out to determine whether the variables display constant variance across the range of the independent variable. This test is available for the fixed-effects model. The test for homoscedasticity is best examined using Modified Wald test for group-wise heteroskedasticity for the effect regression model.

Testing for serial correlation

Serial correlation causes the standard errors of the coefficients to be smaller than they are and higher R-squared (Hair *et al.*, 2010). The test for serial correlation tests applies to macro-panels with long time series over 20 to 30 years (Garson, 2013). In micro panels with very few years, serial autocorrelation is not considered to be a significant issue. A Lagrange-Multiplier test for serial correlation is available. Since the panel was

less than 20 years, the study considered the serial autocorrelation between the variables as insignificant therefore no test was carried out.

Test for the linear relationship

Correlation coefficient statistics naturally measures the association between two random variables and indicates the linear relationship between the variables, such that if the variables are uncorrelated, then, as random variables, they are not linearly related (Woolbridge, 2009). The study used the Pearson Product-Moment correlation coefficient to test for not only the existing interdependency between independent variables and also the significant association between the predictor variables and the criterion variable.

3.5.2 Inferential Statistics

Since the data collected embodied information across both time and space, the data comprised both time series and cross-sectional elements and thus the techniques for analysis for such panel or longitudinal data are different from both the time-series or cross-sectional data. The simplest way to deal with such data would be to estimate a pooled regression, which would involve estimating a single equation on all the data together, so that the dataset for y is stacked up into a single column containing all the cross-sectional and time-series observations, and similarly all of the observations on each explanatory variable would be stacked up into single columns in the x matrix.

However, the process of pooled regression is tedious and therefore panel regression would be most appropriate in such circumstances. Thus, in such instances, the study used panel regression models which combine the benefits of simple ordinary least squares for cross-sectional data formats and time – series analysis for time – series data sets.

3.6 Model Specification

The panel regression model takes the following format

$$Y = \beta_0 + \beta_{1it}X_{1it} + \beta_{2it}X_{2it} + \beta_{3it}X_{3it} + \beta_{4it}X_{4it} + \beta_{5it}X_{5it} + \mu_{it}, \dots \dots \dots (3.1)$$

Where;

Y	=	Capital Structure	(Dependent variable)
X_{1it}	=	CEO Duality	(Independent variable 1)
X_{2it}	=	CEO tenure	(Independent variable 2)
X_{3it}	=	CEO Age	(Independent variable 3)
X_{4it}	=	CEO gender	(Independent variable 4)
X_{5it}	=	CEO Education	(Independent variable 4)
ε	=	the error term	
β₀	=	Constant	
β₁... β₅	=	Coefficients of the X (independent) variables.	

$x_{it} \dots$ is a $1 \times k$ vector of observations on the explanatory variables, $t = 1, \dots, T$; $i = 1, \dots, N$.

3.7 Ethical Issues

The study ensured that any references made are attributed to the actual author, and by indicating the name of the author, and the year his/her work was published. Detailed information of any reference used was indicated under references at the appendix. A letter stating the purpose of the study and how the researcher intended to maintain privacy, confidentiality and anonymity was attached to the data collection schedule.

3.8 Limitations of the Study

First, the study used 37 firms which have been listed in the NSE before the year 2008. All the firms which either issued an IPO after the year 2008 or were suspended during the years 2008 and 2014 were excluded from the study.

Secondly, the study used secondary sources that were generated from the company's primary information sources such as financial reports. Any error in the primary sources was considered to have an inconsequential effect on the results of the study.

Thirdly, the study was limited to the study period 2008 to 2014 and thus the results reflect the time period stated.

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION

4.0 Overview

This chapter presents data analysis and their interpretation based on the data collected from the listed firms in Nairobi Security Exchange (NSE) which have been consistent from 2008 to 2014. The chapter analyses the variables involved in the study and estimate the conceptual model described in chapter two. The section begins with the description followed by the presentation of the descriptive statistics of the study variables and inferential statistics respectively. Accordingly, hypotheses testing were done and the explanations of the findings were subsequently presented. Ultimately, the conclusion of the hypotheses was supported by a discussion.

4.1 Descriptive Statistics

Data was collected from 37 firms and thus was considered to be sufficient enough for the inferential statistics because Saunders *et al.*, (2009), considers a sample of 30 data points to be sufficient enough for the regression analysis.

4.1.1 Socio-Demographics of the CEO

The research instrument required that the CEO age, gender, level of education and years of experience were indicated in Tables 4.1 below. The CEO had an average tenure of seven years with a maximum of 14 years. Usually, the trend in the listed firms is that an average tenure for the CEO is a minimum of four years but with no limit. Further, the average age for the CEO was 48 years but with a maximum of 64 years. Furthermore, the data indicates that majority of the CEOs in the study are 94% male

Table 4.1 Socio-Demographics of the CEO

Variable	Mean	Std. Dev.	Min	Max
CEO Tenure in years	6.76	3.27	1	14
CEO Age in years	48.32	6.58	32	64
CEO Education	1.55	.548	1	3
CEO gender	Male		Female	
	94%		6%	

Source: Survey Data, (2016)

4.1.2 Descriptive Statistics on Capital structure

The study sought to understand the levels of corporate leveraging levels of these firms and the information are shown in Figure 4.1. The statistics show that these firms' leveraging levels had been slowly rising from six per cent in 2008 to about 12% in 2012. In another context, the corporate leverage ratios are significantly high at around 39% with the results in the MENA region (Belkhir *et al.*, 2016).

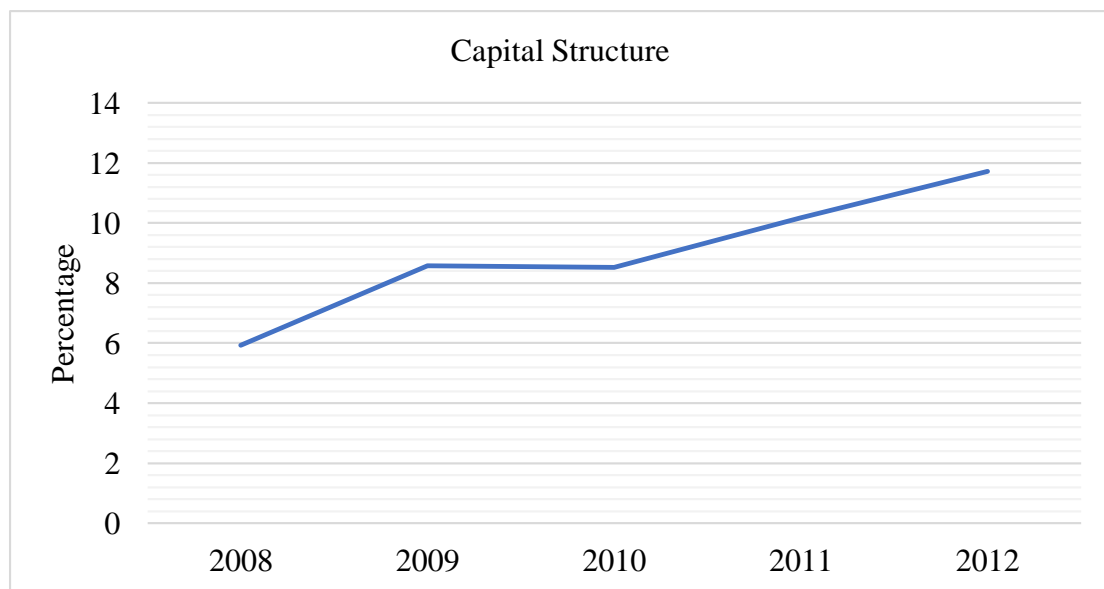


Figure 4.1: Levels of Corporate Leverage

Source: Survey Data, (2016)

4.1.3 Correlation results

Table 4.2 presents Pearson correlation results for the variables used to assess its association. The findings shows that CEO duality had a positive and significant relationship with capital structure ($r = 0.384, \rho < 0.01$). This shows that CEOs duality enhances carefulness and conservativeness within the board Further, CEO tenure was negatively and significantly correlated to capital structure ($r = -0.29, \rho < 0.01$) suggesting that as the tenure of the CEO increases it reduces capital structure of a firm. Additionally, CEO age was indicated to be positively related with capital structure ($r = 0.192, \rho < 0.01$) suggesting that CEOs' age at an average of 48 year is likely to initiates changes to capital structure in a positive away. CEO education is negatively and significantly correlated to capital structure ($r = -0.177, \rho < 0.01$) suggesting advanced education of a doctoral-level degree in business, engineering, science, and other fields) is likely to equip directors with skills in research that facilitate assessment of research projects in the local firm. It may provide them with knowledge related to innovation management. However, boards can be configured to improve efficiencies, thereby reducing R&D spending. CEO gender is negatively and significantly correlated to capital structure ($r = -0.08, \rho < 0.01$) however this relationship is very negligible suggesting that CEOs gender have lower leverage. The association of the control variables showed that, firm performance, board size and firm size has negligible association with capital structure.

Table 4.2 Correlation results

	Capital struc'	CEO duality	CEO tenure	CEO gender	CEO age	CEO edu'io	Firm perf'	Board siz	firm siz
Capital structure	1								
CEO duality	.38**	1							
CEO tenure	-.29**	-.13*	1						
CEO gender	-.08	-.05	-.03	1					
CEO age	.19**	.05	-.02	.01	1				
CEO educ'	-.18**	-.13*	.12*	-.13*	.24**	1			
Firm performa'	-0.02	-0.04	0.03	0.03	0.08	-0.02	1		
Board siz	0.07	0.03	-0.15	-0.15	0.02	-0.12	0.00	1	
Fsiz	-0.03	0.056	0.00	0.00	-0.01	-0.08	-0.03	-0.01	1

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

* Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Data, (2016)

4.2 Direct Effects Model

The panel regression models have both fixed and random-effects models. Whereas the fixed effects model regression assumes that the true effect size for all studies is identical and seeks to explain the static effects between the study variables whereas the random-effects model regression estimates the mean of a distribution of effect and seeks to explain the dynamic effects between study variables.

4.2.1 Heteroskedasticity and Autocorrelation

The study tested for both heteroskedasticity and autocorrelation using the modified Wald test in the form of FGLS regression. The null hypothesis stated that the panels were heteroscedastic and autocorrelated

H₀₁: Panels are heteroscedastic

H₀₂: Panels serially auto-correlate

Table 4.3: Test statistics for Heteroscedasticity and Autocorrelation

Estimated covariances = 1				Number of observations = 265		
Estimated autocorrelations = 0				Number of groups = 7		
Estimated coefficients = 5				Obs per group: min = 37		
Log likelihood = -1101.234				Wald χ^2 (4) = 54.92		
				Prob>χ^2 = 0.0000		
	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Constant	7.751263	8.628499	0.90	0.369	-9.160285	24.66281
Duality	6.758	7.521458	0.56	0.451	-7.02588	20.36812
Tenure	-1.375315	.2935137	-4.69	0.000	-1.950591	-.8000386
Gender	-8.783615	4.140756	-2.12	0.034	-16.89935	-.6678826
Age	.6208723	.1487493	4.17	0.000	.3293291	.9124154
Education	-6.722183	1.813034	-3.71	0.000	-10.27566	-3.168702

Source: Survey Data, (2016)

Since the χ^2 (4) = 54.92, $p < 0.05$, then the null hypothesis that the data was heteroscedastic and autocorrelated is therefore rejected. The study assumption that panels are homoscedastic is upheld and that there is no serial autocorrelation between the study variables.

4.2.2 Hausman Specification Test

According to Baltagi (2008), there are a variety of options to estimate a panel data regression model. The study used the Hausman test for the random effects versus the fixed effect model in order to determine the proper model. According to Clark and Linzer, (2015) fixed effects and random effects are two options that are widely used in panel data regression analysis. While the fixed effects estimator allows the unobserved effects to be arbitrarily correlated with the included explanatory variables, the random effects approach assumes the unobserved individual effects are uncorrelated with the observed explanatory variables (Woodbrige, 2010).

Table 4.4: Hausman Specification Tests for Direct Effects

	(b) fe	(B)re	Difference (b-B)	sqrt(diag(V_b-V_B))
CEO duality	14.067	13.238	.828	
CEO tenure	-1.364	-1.192	-.172	
CEO gender	-8.783615	-6.805961	-1.977654	.9196204
CEO age	.6208723	.580436	.0404363	.0323312
CEO education	-6.722183	-6.073836	-.6483471	.3849989

b = consistent under Ho and Ha; obtained from xtreg,
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
 $\chi^2(4) = (b-B)[(V_b-V_B)^{-1}](b-B) = 9.62$, Prob> $\chi^2 = 0.0221$
(V_b-V_B is not positive definite)

Source: Survey Data, (2016)

The test statistics in Table 4.4 shows that the tests statistic, $\chi^2(4) = 9.62$, $p < 0.05$, indicating the null hypothesis that the random effect model was the most appropriate model could not be rejected. Based on the hypothesis test, the study adopted the fixed effects model for the determination of the effects.

Table 4.5: Coefficient Estimates of CEO Characteristics and Capital Structure before the Controlled Variables in Publicly Listed Firms in Kenya

Fixed-effects (within) regression with the Number of obs = 264				
Capital structure	Coefficient	Std. Err.	t	P> t
CEO duality	14.22	2.29	6.19	0.000
CEO tenure	-1.364	.289	-4.72	0.000
CEO gender	-7.205	3.925	-1.84	0.084
CEO age	.533	.141	3.76	0.000
CEO education	5.550	1.737	-3.24	0.001
Firm performance	-.071	.284	-0.25	0.802
Board size	.189	.633	0.30	0.765
firm size	-.079	.0622	-1.29	0.200
				Prob> F = 0.0954
				R sqr = 0.2692

Source: Survey Data, (2016)

4.2.3 Fixed Effects Model

Table 4.6: Fixed Effects Model

Fixed-effects (within) regression				Number of observations	=	265
Group variable: firm				Number of groups	=	7
R-sq: within = 0.1806				Observations per group: min	=	37
R-sq: between = 0.0067				average	=	37.0
R-sq: overall = 0.1718				max	=	38
Corr(u_i, Xb) = -0.1329				F(4,254) = 13.99		
				Prob> F = 0.0017		
CS	Coefficient	Std. Err.	T	P>t	[95% Conf. Interval]	
Constant	10.03484	8.784898	1.14	0.254	-7.265682	27.33535
Duality	6.758	7.521458	0.56	0.451	-7.02588	20.36812
Tenure	-1.503334	.3071946	-4.89	0.000	-2.108307	-.8983614
Gender	-8.857044	4.18361	-2.12	0.035	-17.09603	-.6180623
Age	0.6018206	.1509198	3.99	0.000	.304607	.8990342
Education	-6.993537	1.8401	-3.80	0.000	-10.61733	-3.36974
Sigma_u	2.6097454					
Sigma_e	15.579067					
Rho	.0272957	(fraction of variance due to u _i)				
F test that all u _i =0:		F(6, 254) =	1.02	Prob> F = 0.4112		

* omitted because of collinearity

Source: Survey Data, (2016)

The statistics in Table 4.6 show that ANOVA, $F(4,254) = 13.99$, $p < 0.05$, and indicates that the regression model was statistically significant in predicting the dependent variable. Therefore, CEO characteristics explain the variation in the capital structure of the firms listed in the NSE. The $R^2 = 0.1717$ indicates that approximately 17 per cent of the variation in the capital structure is explained by the CEO characteristics. Therefore, the equation indicating the effect of CEO characteristics is as follow;

Capital structure = $6.758(\text{duality}) - 1.5033(\text{Tenure}) - 8.8570(\text{Gender}) + 0.6018(\text{Age}) - 7.0000(\text{education})$. The above regression model show that a unit change in tenure of the CEO through yearly increase in contract renewals would lead to a -1.50 unit change in capital structure, a male CEO has an 8.85 unit change in capital structure, a unit

change in age of the CEO would lead to a 0.6018 change in capital structure while a CEO with a graduate level of education (Master's degree) would lead to a seven (7) unit changes in the capital structure.

The findings from the regression analysis show that the CEO characteristics explain about 17% variance in the capital structure decisions. This finding is supported by evidence which showed that CEO influences the capital structure depending on their particular management styles (Custódio and Metzger, 2014). In another context, Jõeveer (2013) showed that firm-specific factors explain as much as a 50% variation in the capital structure decisions of unlisted firms. In the Sub-Saharan context, the only firm related factors explaining capital structure decision include access to finance, agency costs; transaction costs (Taddese *et al.*, 2013). Similarly, the firm – related factors are mainly related to the personal experiences and beliefs of the managers which explains the variance in the corporate financial policies both across and within firms (Malmendier *et al.*, 2010).

This study has similar findings to the one done by Botta and Colombo (2016) which indicate that firm-level variables directly account for only 6.4% of the variation in market debt ratios. In another context, Jõeveer (2013) showed that firm-specific factors explain as much as a 50% variation in the capital structure decisions of unlisted firms. Botta and Colombo (2016) also indicated that firm-level variables have a moderate or direct impact on leverage as compared to the macroeconomic and institutional variables.

4.3 Hypotheses Testing

4.3.1 CEO duality and capital structure

This hypothesis sought to determine the effect of CEO duality on the capital structure of listed firms in Kenya. The null hypothesis was stated as follows:

H₀₁: There is no significant effect of CEO duality on the capital structure of listed firms in Kenya.

The beta coefficient for CEO tenure, $\beta_1 = 6.758$ ($t = 0.451$, $p > 0.05$) was insignificant indicating that CEO duality has no effect on capital structure of listed firms in Kenya. Extant literature indicates positive effect for example, Fosberg, (2004) indicated that companies with CEO duality have high accessibility to external financing and can greatly influence the firm's capital structure. Jensen (1986) found a positive relationship between CEO duality and leverage ratio, while Hussainey and Al-Nodel, (2009) established a positive relationship between CEO duality and capital structure. Ranti, (2013) showed that dual leadership may reduce information asymmetry problems and lead to higher access to external debt thus affecting its capital structure. The studies indicating a negative relationship include Abor and Biekpe (2007) which observed a negative relationship between CEO duality and leverage ratios. On the converse, the separation of CEO and chairmanship positions are often associated with a lower debt ratio in the firm's capital structure (Liao *et al.*, 2015).

The current study is based on the separation of the CEO and Chairmanship positions and thus is significantly different from the other empirical studies. From the extant literature, it appears that there is a contrasting finding between CEO duality and capital structure; however, the supports of the positive relationship between CEO duality and capital structure is more common in Anglophone countries than in any other part of the

world based on their governance structure. This means that firms with dual CEOs would pursue higher leverage in their capital structure because of the reduction in information asymmetry.

4.3.2 CEO tenure and the capital structure

This hypothesis sought to establish the effect of CEO tenure on the capital structure of listed firms in Kenya. The null hypothesis was stated as follows:

H₀₂: There is no significant effect of CEO tenure on the capital structure of listed firms in Kenya.

The beta coefficient for CEO tenure, $\beta_2 = -1.50$ ($t = -4.89$, $p < 0.05$) was significant. The results in Table 4.4 shows that CEO tenure has a significant effect on the capital structure of listed firms in Kenya in that a unit increase in the tenure of the CEO leads a 1.50 -unit reduction in the debt ratio of the capital structure of listed firms in Kenya. Based on this finding, the study rejected the null hypothesis that there is no significant effect of CEO tenure on the capital structure of listed firms in Kenya and concludes that CEO tenure has a statistically significant effect on the debt ratio of the capital structures of listed firms in Kenya.

The conclusion of the findings reported from this hypothesis is explained using extant literature and previous empirical studies. The study found that CEO tenure has a negative and significant effect on the capital structure while Empirical studies on the tenure of the CEO have either positively or negatively linked the effect of tenure to the corporate leveraging activities. For instance, Ting, *et al.*, (2015) studied Malaysian firms and found that CEO tenure positively correlated to leverage. Moreover, Rakhmayil and Yuce (2009) observed that longer CEO tenure results in appetite for debt financing, while Frank & Goyal (2007) observed that the length of CEO tenure is inversely related

to its corporate leveraging activities. They concluded that the longer the tenure of the CEO, the lower the debt as he/she continues to run the firm. Rakhmayil and Yuce (2009) observed that short-tenure CEOs tend to use debt more aggressively compared to their peers with longer-tenure. This study suggests that the CEO who has been in the firm for long periods are more likely to employ lesser debt in order to reduce the performance pressures associated with high debt capital.

Myers (2001) showed a negative relationship between executive firm tenure and capital structure. However, prior authors (Frank & Goyal, 2007; Graham *et al.*, 2010) observed a positive relationship between tenure and capital structure on the basis that tenure improves the experience of the CEO, which consequently decreases his reliance on subordinates and so makes delegation of decisions including leverage less frequent. Nonetheless, in terms of board tenure, a board with a long tenure tends to run a good supervision in order to achieve the company's goals (Beasley 2006 and Anderson *et al.*, 2003).

The study findings are in line with the prior literature concerning the negative influence of CEO tenure on capital structure. According to Farrel (2003), the long tenure of CEOs increases their credibility and independence. This is due to the fact that the longer the tenure of directors on the board, the better knowledge of the company and their executives they will get. In a similar nature, long tenure magnifies a CEOs ego to the extent that she/he may think that she/he can do no wrong, even if her/his action could jeopardize debt-equity ratio. This negatively impacts on firms' capital structure.

4.3.3 CEO gender and the capital structure

This hypothesis sought to determine the effect of CEO gender on the capital structure of listed firms in Kenya. The null hypothesis was stated as follows:

H₀₃: There is no significant effect of CEO gender on the capital structure of listed firms in Kenya.

The beta coefficient for the gender of the CEO, $\beta_3 = 8.8570$ ($t = -2.12$, $p < 0.05$) was significant. The results in Table 4.6 show that the gender of the CEO has a significant effect on the capital structure of listed firms in Kenya in that a male CEO has 8.86 unit increases in the debt ratio of the capital structure of listed firms in Kenya. Based on this finding, the study rejected the null hypothesis that there is no significant effect of CEO gender on the capital structure of listed firms in Kenya and concludes that CEO gender has a statistically significant effect on the debt ratio of the capital structures of listed firms in Kenya.

The conclusion of the findings reported from this hypothesis is explained using extant literature and previous empirical studies. The results indicate that CEO gender has a positive and significant effect on the capital structure while the empirical studies on the gender of the CEO have contrasting findings with Ting *et al.*, (2015) reported that female CEOs are more likely to take more debt or pursue higher corporate leverage than male CEOs in Malaysia. Jianakoplos and Bernasek (1998) found that women tend to be risk-averse than men in capital structure decisions. Niessen and Ruenzi (2007) were of the opinion that female fund managers are more risk-averse than male fund managers in their investment decisions. On the converse, Faccio *et al.*, (2016) reported that female CEO has lower leverage levels than their male counterparts. Huang and Kisgen (2013) observed that male executives are more likely to issue debt more than their female counterparts.

The findings are in tandem with the results of studies by Faccio, *et al.*, (2016) and Huang and Kisgen (2013) which indicated that male executives tend to issue more debt

in the firm's capital structure thus influencing the DER. The study findings show that male CEO is more likely to issue more debt instruments and thus alter the firm's capital structure, but on average, women are typically found to be more conservative than men and thus they are less likely to engage in more corporate leveraging activities. Besides, Robb and Robinson, (2014) argued that gender, affects investment-cash flow sensitivity and corporate investments made by male CEOs are more sensitive to cash flow, particularly in the equity dependent companies, compared to investments made by female CEOs.

4.3.4 CEO Age and the capital structure

This hypothesis sought to establish the effect of CEO age on the capital structure of listed firms in Kenya. The null hypothesis was stated as follows:

H₀₄: There is no significant effect of CEO age on the capital structure of listed firms in Kenya.

The beta coefficient for the age of the CEO, $\beta_4 = 0.6018$ ($t = 3.99$, $p < 0.05$) was significant. The results in Table 4.4 show that the age of the CEO has a significant effect on the capital structure of listed firms in Kenya in that the age of CEO have 0.6018 unit increases in the debt ratio of the capital structure of listed firms in Kenya. Based on this finding, the study rejected the null hypothesis that there is no significant effect of CEO age on the capital structure of listed firms in Kenya and concludes that CEO age has a statistically significant effect on the debt ratio of the capital structures of listed firms in Kenya.

The conclusion of the findings reported from this hypothesis is explained using extant literature and previous empirical studies. The results of the study showed that that CEO age has a positive and significant effect on capital structure, while empirical studies

have considered the age of the CEO as a key attribute that influences corporate structure decisions of US firms (Kaplan *et al.*, 2012). This was further validated by Kuo, Wang and Lin, (2015) who studied firms in Asia and indicated that older CEOs tend to increase debt capacity but at European context, Cronquist *et al.*, (2012) also observed that older CEOs are not comfortable with debt ratios. Niederle and Vesterlund (2007) indicated that the age difference affects the capital structure decisions of managers. Similarly, Graham *et al.*, (2010) observed a significant relationship between capital structure and age. Consistently, Abor (2007) and Hou *et al.*, (2017) were able to show a positive relationship between age and financial leverage (capital structure). However, in Malaysia, Ting, *et al.*, (2015) reported that CEO age, and CEO prior experience negatively correlated with leverage. The study findings show that older executive with a diverse experience and well conversant with the industry-level determinants of financial leverage than young executives are more likely to increase the firm's use of debt prompting higher debt ratios in the firm's capital structure.

This implies that the CEOs ability to bear risk could be shaped by his or her age thus influencing his capital structure decision-making skills. Consistently, prior literature indicates that the structure of responsibility and power of decision making in publicly traded companies is hierarchical according to the age of top executives. As such, the CEO who is an older person is at the top and is influential in capital structure decision making.

4.3.5 CEO education and the capital structure

This hypothesis sought to establish the effect of CEO education on the capital structure of listed firms in Kenya. The null hypothesis was stated as follows:

H₀₅: There is no significant effect of CEO education on the capital structure of listed firms in Kenya.

The beta coefficient for the education level of the CEO, $\beta_5 = -7.00$ ($t = -3.80$, $p < 0.05$) was significant. The results in Table 4.6 show that the education level of the CEO has a significant effect on the capital structure of listed firms in Kenya in that the graduate-level CEO have 7.000 unit increases in the debt ratio of the capital structure of listed firms in Kenya. Based on this finding, the study rejected the null hypothesis that there is no significant effect of CEO education on the capital structure of listed firms in Kenya and concludes that CEO education has a statistically significant effect on the debt ratio of the capital structures of listed firms in Kenya.

The conclusion of the findings reported from this hypothesis is explained using extant literature and previous empirical studies. The results from the study show that the education level of the CEO has a significant and positive effect on capital structure decisions. The studies on the effect of the education levels have focused mainly on the graduate level of education or MBA degrees. For instance, Kaplan, *et al.*, (2012) noted that education levels are considered as key determinants of corporate decisions. This finding was also observed by Ting, *et al.*, (2015) who studies Malaysian firms and found that CEO education level positively correlated with leverage. Cronquist *et al.*, (2012) observed that CEOs with MBAs are more comfortable with debt and thus they aggressively use more debt. Custódio and Metzger (2014) also observed that CEOs with a financial background are more likely to pursue the issuance of debt instruments when raising funds notwithstanding the prevailing credit conditions. Within Eastern Europe, Rakhmayil and Yuce(2009) observed firms ran by CEOs with MBA degrees, graduates from highly reputable business schools with professional certification tend to use higher leverage when compared to their counterparts. The findings of the study showed that

most CEOs of listed firms in Kenya possess graduate degrees and therefore there is likelihood that these firms will use debt instruments in their capital structure decisions.

As for the CEO education not having a significant effect on capital structure, the finding of the study showed that CEO education has a positive and significant effect on capital structure. The results are similar to that of Abor, (2008) who noted that the educational background of the CEOs is believed to be positively related to debt, implying that better-educated owners do have greater possibilities of borrowing. As well, the level of education appears to have an important positive impact on micro and small enterprises' debt-raising capacities (Green *et al.*, 2003).

A study on Egyptian firms indicated that firms' size has no significant effect on its capital structure (Ebaid, 2009). First; smaller firms may find it relatively more costly to resolve informational asymmetries with lenders and financiers. Consequently, smaller firms are offered less capital, or are offered capital at significantly higher costs to larger firms, which discourage the use of outside financing. The transaction costs associated with financing may also affect financing choices as transaction costs are most likely a function of scale, with smaller scale financing resulting in relatively higher transaction costs (Cassar & Holmes, 2013).

Consistent with the TOT, firms have a target leverage to which they adjust in each period, using more debt as the tax advantages of debt grow. Consistent with the POT, firm leverage is positively related to investment opportunities and the percentage of intangible assets, and negatively related to profitability. González and González (2011) indicate that the predominance of the TOT and the POT varies across firm size. The positive relationship of firm leverage with investment opportunities and intangible assets and the negative relation with firm profitability are stronger in small firms than

in medium-sized and large firms. The higher information asymmetries in small firms originate a greater validity of the pecking order theory in this type of firm. Despite the greater validity of the pecking order predictions in small firms, there are no differences in the adjustment speed to the target leverage across firms with a different size (González & González, 2011).

CHAPTER FIVE

FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes and presents the research findings of the effect of CEOs characteristics on the capital structure of publicly listed firms in Kenya during the period 2008-2014. For clarity purposes, the discussions are based on the research hypotheses of the study. The study discusses each hypothesis separately starting with a summary, discussion and its conclusion. The study provides policy recommendations limitations and recommendations for further research.

5.2 Summary

First, the study presents the demographic characteristics of the CEO in the sample. The average age for the CEO was about 48 years and with an average of seven years' tenure. About 6% of the CEOs are female.

Secondly, the main objective of the study was to determine the effect of CEOs characteristics on the capital structure of publicly listed firms in Kenya. This section presents the findings from the study in comparison to what other scholars have said about the influence of CEO duality, tenure, gender, age and education on capital structure. The results of the hypotheses are summarized in Table 5.1.

Table 5.1: Summary of Hypotheses Test and Result

Hypothesis	Results	Conclusion
H₀₁: C.E.O duality has no significant effect on the capital structure of listed firms in Kenya	H ₀₁ was accepted	CEO duality has no significant effect on the capital structure of listed firms in Kenya
H₀₂: CEO tenure has no significant effect on the capital structure of listed firms in Kenya	H ₀₂ was rejected.	CEO tenure had a negative and significant effect on the capital structure of listed firms in Kenya
H₀₃: CEO gender has no significant effect on the capital structure of listed firms in Kenya	H ₀₃ was rejected.	CEO gender had a negative and insignificant effect on the capital structure of listed firms in Kenya
H₀₄: CEO age has no significant effect on the capital structure of listed firms in Kenya	H ₀₄ was rejected.	CEO age had a positive and significant effect on the capital structure of listed firms in Kenya
H₀₅: CEO education has no significant effect on the capital structure of listed firms in Kenya	H ₀₅ was rejected.	CEO education had a negative and significant effect on the capital structure of listed firms in Kenya

Source: Researcher, (2018)

The first objective sought to determine the effect of the CEO duality on the capital structure of listed firms in Kenya. The results show that CEO duality has no significant effect on the capital structure of listed firms in Kenya. The study finding indicated that CEO duality does not affect capital structure because of the fact that the corporate governance code in Kenya does not envision or allow a situation where the board chairperson and chief executive office are occupied by a single individual. The absence of duality in the governance structure then would suggest that the capital structure decision is individually generated and directed by the CEO and with approval from the board.

The second objective sought to establish the effect of the CEO tenure on the capital structure of listed firms in Kenya. The results show that CEO tenure has a significant negative effect on the capital structure of listed firms in Kenya. The study finding indicated that CEO tenure negatively affects the capital structure of listed firms based on the fact that longer-tenured CEOs tend to assert themselves in the corporate financing decisions and thus institutionalize the use of debt more than equity. The increased use of debt as opposed to equity in corporate financing decisions is more likely preferred because of the tax allowance and benefits. Besides, the use of debt by these CEO can also be attributed to the favourable cost of financing from the debt from the capital market. Kenya is considered a bank-based system as opposed to the capital – market-based system because of the relatively nascent developed capital market when compared to the well-developed banking system.

The third objective sought to assess the effect of the CEO gender on the capital structure of listed firms in Kenya. The results show that the gender of the CEO has a significant positive effect on the capital structure of listed firms in Kenya. The study finding indicated that the gender of the CEO positively affects the capital structure based on the fact that most firms have male executives as opposed to female CEOs. The empirical literature indicated that female executives are risk-averse and therefore would be reluctant to use debt financing less often. On the converse, the dominance of the male CEOs would then portend the use of debt either based on their personal characteristics or the inclination to risk.

The fourth objective sought to determine the effect of the CEO age on the capital structure of listed firms in Kenya. The results show that the age of the CEO has a significant positive effect on the capital structure of listed firms in Kenya. The study finding indicated that the age of the CEO positively affects the capital structure based

on the fact that older CEO tends to go for more debt. The fact that older CEO are more likely to use more debt is explained by individual personal characteristics, behaviours and experience in the position would be validated by the market as a signal to the firm's foundation. By using more debt, either the CEO signal the firm's capability to market and thus its reputation to use the capital wisely and/or the true value of the firm as indicated by the market is not optimized, thus the cost of using equity would be significantly higher in comparison. Due to this, the CEO would consciously use more debt as a signal or the taxable allowance benefit of the debt.

The fifth objective sought to establish the effect of the CEO education on the capital structure of listed firms in Kenya. The results show that the education of the CEO has a significant positive effect on the capital structure of listed firms in Kenya. The study finding indicated that most of the CEOs hold graduate degrees. The empirical literature indicated that executives with graduate degrees or MBA are risk-takers and thus would go for more debt.

5.3 Conclusion

This study examined the effect of CEOs characteristics on the capital structure of publicly listed firms in Kenya. There is overwhelming evidence from the study showing that CEO duality has a positive and no significant effect on capital structure. This implies that one tier of leadership is appropriate to get more funds as debt. This is due to the fact that CEO duality avoids the conflict between the CEO and the chairman. The study is therefore in support of the proposition that having a CEO in the firm who is both a chairperson and at the same time the CEO, there is a higher likelihood that firms will increase its capital structure.

With regard to CEO tenure, the study found that CEO tenure has a negative effect on the capital structure. As CEOs acquire firm-specific knowledge early in their tenure, the result is better firm performance. Eventually, as tenure continues to advance, boards lose their oversight and firms engage in a more value-destroying activity.

The study also found out that gender diversity is likely to bring on board a wide array of individuals that are knowledgeable and conversant with the management of the firms. However, the study has indicated that CEO gender has no significant effect on the capital structure. There is thus need for further studies on the same so as to validate this concept.

Besides, the study has established that CEO age has a positive and significant effect on the capital structure. The average age for the CEOs is 48 years. This is an indication that the CEOs are older individuals. The CEOs are therefore more likely to pursue lower leverage on debt ratio to enhance the firm performance.

Finally, the existence of educated CEOs could lead to better management decisions and help firms in attracting better resources, the study has indicated that CEO education has a negative effect on the capital structure. It can, therefore, be inferred that the more educated the CEO gets, the more cautious he/she becomes of the risk of bankruptcy lies in debt. As a result, firms will have less capacity to borrow in times where financing is necessary.

Based on the trade-off theory, certain firm-level factors are associated with the firm's corporate leverage activities no matter the country or region. These factors include firm size and asset tangibility which have a positive effect, while profitability negatively associates with the firm's capital structure (Belkhir *et al.*, 2016). There is little evidence that firms follow industry norms of capital structure or that managers use debt or equity

for agency costs or tactical reasons such as to pressure employees or to motivate managers to work harder. We find moderate support for the trade-off theory but less for the pecking order theory

5.4 Recommendations

Based on the findings of the study on the effect of CEOs characteristics on the capital structure of publicly listed firms in Kenya the following recommendations were advanced.

The study is indicative of a positive and significant effect of CEO tenure on capital structure. It is therefore instrumental for firms to appoint their CEOs based on the duration they have served the company or they have been in the mentioned industry. With this in place, firms will be able to appoint CEOs that are conversant with the dealings of the firm and those with wealth of experience.

The finding of the study indicated that the CEO education has a negative effect on the capital structure. It therefore importance for firms to employ more educated CEOs in order to enhance longevity of the firm.

Based on the study findings, there is a significant relationship between the age of the CEOs and capital structure. It is therefore utmost necessary for CEOs to be mature individuals. Older CEOs have the requisite knowledge and experience hence they can be tasked with making important decisions pertaining firms' financing.

5.5 Areas for Further Research

The study focused on the effect of CEO characteristics on the capital structure of publicly listed firms in Kenya. The results are confirmable to the literature in an international setting. However, further insight into the idea is needed to support the findings. This study, therefore, recommends that another study be done to augment

finding in this study; it, therefore, recommends a study be done on a greater number of firms rather than including only firms in the NSE for the sake of generalizing the results of the study. Moreover, including moderator factors can also be made in the research models of the new research by other scholars in future.

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APPENDICES**Appendix I: List of Companies**

1. BOC
2. Athi River Mining
3. Bamburi Cement
4. Barclays Bank of Kenya Ltd
5. Car & General Kenya
6. Centum Kenya
7. CFC Stanbic
8. CMC Holdings
9. Co-operative Bank of Kenya
10. Crown Paints
11. Diamond Trust Bank
12. East African Breweries
13. East African Cables
14. East African Portland Cement
15. Equity Bank
16. Eveready East Africa
17. Express Kenya
18. Housing Finance Company of Kenya
19. Jubilee Holdings
20. KenGen
21. KenolKobil
22. Kenya Airways
23. Kenya Commercial Bank
24. Kenya Power & Lighting
25. Kenya Re
26. Mumias Sugar
27. Nation Media Group
28. National Bank of Kenya
29. NIC Bank
30. Olympia Capital Holdings
31. Pan Africa Insurance Holdings
32. REA Vipingo Plantations
33. Safaricom
34. Sasini
35. ScanGroup
36. Standard Chartered Bank Kenya
37. Standard Group

