

**THE RELATIONSHIP BETWEEN CHIEF EXECUTIVE OFFICER QUALITIES
AND VALUE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE**

BY

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DECLARATION

This research project is my original work and it has not been submitted to any university or college for examination.

Signed..........

Date ...17/11/2021.....

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D63/11138/2018

This research project has been submitted for examination with my authority and approval as the university supervisor.

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DEDICATION

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ABBREVIATIONS

CEO	-	Chief Executive Officer
CMA	-	Capital Markets Authority
NSE	-	Nairobi Securities Exchange
ROA	-	Return on Assets

ABSTRACT

Managers are nearly usually blamed and praised for a company's successes and failures. Executive managers encourage growth and management of complexities, while maintaining control of expenditures in a continuously fluctuating environment. Executive managers make critical strategic choices that determine whether or not a company will survive. Furthermore, their job is becoming increasingly focused on growth investment problems in order to start a profound organizational change and create value. As a result, executive directors' qualities, such as those of Chief Executive Officers (CEOs), are important. The overall objective of the study was to establish effect of CEO quality on the value of firms listed on the Nairobi Securities Exchange. It also aimed at reviewing the increasing body of theoretical and empirical studies that have endeavored to examine the range of magnitude and effects of CEO quality on firm value. The upper echelons, stakeholder, and agency theories guided the current study. The current study utilized the descriptive research design. The target population was all the 64 listed firms at the Nairobi Securities Exchange. The study employed a census and it examined the whole population. The unit period of analysis was annual, and data was collected for the period from 2016 to 2020; the period comprised of five years. The study applied correlation analysis and multiple linear regression model with the technique of estimation being Ordinary Least Squares (OLS) so as to establish the relationship of CEO quality and firm value. The study findings were that that CEO education, CEO work experience, CEO tenure, and leverage do not have a significant correlation with firm value. Further study findings established that the model entailing; CEO quality aspects comprising of CEO education, CEO work experience, and CEO tenure, and also leverage explains firm value to a very least extent with a coefficient of determination value of 0.32%. Additional study findings were that that the model consisting of CEO quality aspects comprising of CEO education, CEO work experience, and CEO tenure, and also leverage does not significantly predict firm value ($\text{Prob} > \chi^2 = 0.1800$). Final study findings were that CEO education ($p = 0.753 > 0.05$), CEO work experience ($p = 0.396 > 0.05$), CEO tenure ($p = 0.080 > 0.05$), and leverage ($p = 0.823 > 0.05$) do not each individually have a significant relationship with firm value. Policy recommendations are made to the government officials and policy formulators in the financial sector, mainly the regulator, the Capital Markets Authority (CMA), and the Treasury, not to mainly focus on CEO qualities when endeavouring to boost firm value in order to spur the development of capital markets. Recommendations are also generated to the financial analysts not to estimate market capitalization, and by extension, securities value, by using CEO qualities, and in extension, leverage. To be able to predict bear and bull markets, they should mostly perform due diligence and background check on their investment targets. Finally, recommendations are made to consultants and listed firms practitioners should not mainly focus on CEO qualities to time strategies like securities exchange listings, rights issues, and dividend pay-outs.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Managers are nearly usually blamed and praised for a company's successes and failures. Executive managers encourage growth and management of complexities, while maintaining control of expenditures in a continuously fluctuating environment (Diks, 2016). Executive managers make critical strategic choices that determine whether or not a company will survive (Bandiera, Prat, Hansen & Sadun, 2020). Furthermore, their job is becoming increasingly focused on growth investment problems in order to start a profound organizational change and create value (Al-Ghamdi & Rhodes, 2015). As a result, executive directors' qualities, such as those of Chief Executive Officers (CEOs), are important (Bandiera et al., 2020).

The primary theory behind current study include the upper echelons theory established by Hambrick and Mason (1984). According to the theory, the qualities of managers may be helpful in forecasting the firm's results. Another theory anchoring the current study is the stakeholder theory pioneered by Freeman (1984). The theory advocates for corporate accountability measures for the numerous investors in a company. The final theory anchoring the current study is the agency theory, which was advanced by Jensen together with Meckling in 1976. Agency theory postulates that an association is present amongst a company's principals (shareholders) and their agents (managers and executives).

With the rising tendency of unexpected business failures, both globally and locally, shareholder and other stakeholder are growing more worried about their companies' financial performance (Omondi & Muturi, 2013). Nevertheless, despite excellent results on the Nairobi Securities Exchange (NSE), certain issues have been discovered concerning the control and

management of businesses. These issues include errors, errors and pure fraud. The causes of this issue include low data requirements result in a lack of protections for minority shareholder, inadequate incentive and concentrated ownership (Ongore & K'Obonyo, 2011). In a context like this and the weak legal system, the interests of both minority stockholders may be endangered and the interests of such block shareholders shrunk. The performance of these companies may thus be impaired (Omondi & Muturi, 2013). This issue is compounded by nascent investigation on effect of CEO characteristics on success of coded businesses, in particular in emerging nations. The skeptical issue as to whether CEO quality could lead to solid performance and value in all contexts remained unresolved. This research aimed to uncover CEO quality of the Agency by its involvement in the value of Nairobi-listed companies.

1.1.1 Chief Executive Officer Qualities

In addition to other features relating to temperamental and intellectual capacity, the notion of CEO characteristics includes elements of values, behaviours, and abilities. The characteristics required for management may be viewed as a balancing, with credibility as the firm foundation, and on both sides respect and responsibility are balanced (John, 2006). James (2010) defines qualities of managers as the managerial age, education, experience, tenure and functional background. Malmendier at al. (2010) classified CEO qualities as either observable or non-observable characteristics.

The CEO is vital actor in business sector. With top management team roles in the companies, CEOs are able to lead companies to aggressively seek possibilities (Barnard, 1938) and oversee the companies' structures and plans (Thompson, 1967). CEOs particularly take crucial and strategic choices which may affect their companies' success (Child, 1972).

Drucker (1954) eluded primary main predictor of an organization's success and survival is dependent on achievement and quality of the senior executives in the company.

The aspects of CEO qualities utilized in the study include; CEO education, CEO professional experience, and CEO origin. CEO education was measured using dummy variable with one indicating CEOs with degrees from economics and business administration fields and a value of 0 indicating otherwise (Morresi, 2017). CEO term in years after the appointment of CEO was calculated using natural logarithm (Murphy & Zimmerman, 1993). Finally, the CEO was evaluated by the dummy variable 1 of his experience in the industry when the CEO has appropriate industrial expertise in his current position and a value of 0 that is otherwise indicated (Dublin, 2017).

1.1.2 Firm Value

Leland and Toft (1991) state that the phrase relates to the worth of its holding plus worth of the tax advantage resulting from the indebtedness minus the insolvency expense value associated with its indebtedness. Therefore, the worth of an organization encompasses long term debt together with equity. Equity comprises of retained earnings, share premium, paid up share capital, or excess and reverses. Modigliani (1980) says that the company's worth includes a mix of equity financing and relies on revenue flow realized from its asset. Organization equity value is reduced worth of the shareholder's wages referred to as net revenue. For instance, the net income divided by the expected tariff of return on equity. To obtain the net income, interests on debt are subtracted from the net operating income. In contrast, debt value of companies is decreased by the interest on indebtedness.

The primary aim of management of organizational finances is to achieve the goal of maximizing shareholder wealth. The wealth of shareholders, which is identical with company value, contributes to all the future advantages that an organization receives in both the long and short period. The success of the listed businesses may be evaluated by market value since information on current stock prices is necessary. The issue of estimating the lag between implementation and increasing productivity or profitability is resolved. There are many shortcomings with other billing ratios such as the price-to-earnings ratios (P/E) and the market-to-book values ratios, since reported profits are altered without any actual change in the underlying enterprise. In addition, the many accounting loopholes make managers easier to misinform investors (Cheng, Liu & Tzeng, 2011).

Various metrics such as the Tobin Q ratio and the company's market share price may help to establish the worth of a company. Other changes in company value relate to variations in factors like corporate size, dividend per share, income per share, book value per share, dividend pay-out percentage, price earnings ratio and dividend cover (Sharma, 2011). The current study utilized the Tobin's Q ratio is market value proportion of firms' resources as represented by the marketplace value of the firms' unsettled stock together with debt, dispersed by standby costs of the assets of the business which is the book price (Tobin, 1969).

1.1.3 Chief Executive Officer Qualities and Firm Value

The effect of CEOs on business performance and value has sparked a surge of scholarly study in recent decades (Burgelman et al., 2018). Scholars in many areas have used diverse techniques to evaluate the variability of corporate performance by CEOs, such as decomposition by variance (Crossland and Hambrick, 2007) and stock markets responses to unexpected CEO demise reports (Quigley & Graffin, 2017).

Despite the continuing dispute and restrictions faced by the (Fitza 2014) on occasion (Hambrick & Finkelstein 1987), extant researches have repeatedly indicated a strong implication on corporate performance, and thus a strong value. In fact, the influence of the CEO has significantly grown throughout the years. Moreover, studies have gone beyond the argument that CEOs are concerned with issues of the channels via which they have effects on business success, with an emphasis on individual qualities. The researchers have drawn on a number of theoretical approaches to examine whether CEO features transfer into meaningful company performance results (Quigley & Graffin, 2017).

An associated study stream believed that the specific features of each CEO contribute to strategic decisions of a company. The theory behind this approach is based not only on the high level theory, but also the explanatory aspects of each of the CEO's levels and in generally on the important outcome and choice presented at business level. Prior research examined a range of distinct factors such as the expertise of the CEO (Hamori & Koyuncu, 2015), multidisciplinary directorate chairs (Chiang & He, 2010), educational activities (Ng & Feldman, 2009) and international experiences (Khavul et al., 2010).

Researchers have also taken the demography of CEO like age, (Yim, 2013; Amran, Yusof, Ishak & Aripin, 2014) and gender, such as core self-evaluation (Chen, Crossland & Huang, 2016), and characteristic of personality like core self-assessment (Hill & Hambrick, 2006), hubris (Hayward & Hambrick, 1997), humility (Ou et al., 2014), narcissism (Chaward & Hambrick, 2014). This study stream sheds insight on the impact of CEOs on businesses, although relatively few of them connect CEO features with company success. In summary, this study stream emphasizes the unique CEO features that affect the success of the company and offers an incentive for research in adjacent fields.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) was established by shareholders as a voluntary organization in 1954 and entrusted with functions of regulating trading operations and also developing the securities market. It is now one of the major African exchanges and even more so it is a historic trading platform that caters to both domestic and international investors, who seek to get access to economic development in Kenya and Africa as a whole. It covers fixed and variable income instruments and comprises 64 listed firms, an I-REIT, an exchange traded fund (ETF) and a future derived market (CMA, 2016).

With the abrupt collapse of corporations in local and global spheres growing, investors and other noteworthy stakeholders are more worried about their companies' financial health (Omondi & Muturi, 2013). Nevertheless, in spite excellent performance at NSE, many issues have been discovered regarding the way businesses are managed and regulated. These issues vary from inaccuracies, errors to straightforward thefts. The roots of these issues vary from concentrating ownership, inadequate incentive, and insufficient protection to weak disclosure requirements for minority shareholders (Ongore & K'Obonyo 2011). In the context of this climate and the poor legal system, interests of minority shareholder may be compromised and the interests of these block shareholders could be distorted. The performance of such companies may thus be impaired (Omondi & Muturi, 2013). The fact that little study has been carried out on the impact of CEO characteristics on the success of listed firms, particularly in development nations, aggravates this issue. The strange issue of whether the quality of CEOs in businesses might lead to firm performance and value in all circumstances has still not been completely addressed. The aim of this research was to uncover the agency problem with its involvement in the valuation of companies listed on the NSE

1.2 Research Problem

Finding the next CEO is one of the most sensitive choices ever faced by a Board of Directors. The process of selection is subject to so many unknown factors like personality, integrity, technical abilities and expertise (Diks, 2016; Bandiera et al., 2020). Despite the fact that there is widespread agreement that CEOs impact the performance of the company in a specific sense due, for example, to their heterogeneous talents and capabilities (Gabaix & Augustin, 2008), theorists and scholars remain divided, providing few evidence supporting the CEO's conduct characteristics, such as educational backgrounds or CEO attributes (Al-Ghamdi & Rhodes, 2015). This raises the issue of what qualities the CEO truly needs to improve company success in today's business global difficulties.

With the rising tendency of unexpected business failures on a local and global scale, investors and other stakeholders are growing more worried about their companies' financial health (Omondi & Muturi, 2013). Despite the Nairobi Securities Exchange's (NSE) excellent success, a number of issues with the way businesses are regulated and directed have been discovered. Errors, blunders, and blatant fraud are all examples of these issues. The causes of these issues vary from concentrated ownership, insufficient incentives, and inadequate minority shareholder protection to a lack of disclosure requirements (Ongore & K'Obonyo, 2011). With such an atmosphere in the backdrop, as well as a weak legal system, the interests of both minority and block owners may be jeopardized and skewed in favour of the block shareholders. As a result, the performance of such businesses may be jeopardized (Omondi & Muturi, 2013). This issue is exacerbated by little study being conducted on impact of CEO characteristic on quoted company success, particularly in emerging nations. The perplexing issue of whether CEO quality in businesses can lead to firm success and value in all situations

has yet to be completely addressed. The aim of this study is to examine the agency issue in CEO qualities and how this impacts the value of the Nairobi Securities Exchange businesses.

A lot of research on CEO characteristics and company success has been carried out internationally, regionally, and locally. In a worldwide context, Ghardallou, Borgi and Alkhalifah (2020) studied the effect on company performance of CEOs characteristics, particularly studying the role of education, professional experience and tenure by CEOs on Saudi Arabian listed firm's performance. The outcome related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. Furthermore, the research was not performed in the Kenyan setting with a contextual divide. On the regional front, Saidu (2019) discusses the effect on Nigeria Bourse listed firm performance on the ownership, training and origins of the CEO. The study focused on CEO origin, education, and ownership as the CEO qualities. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The study also did not incorporate CEO professional experience and tenure as attributes of CEO quality thus presenting a conceptual gap. Furthermore, the research was not carried out in Kenya, resulting in a context gap. Kokeno and Muturi (2016) looked at qualities of CEOs and they how they impacted the performance of companies listed on NSE. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The study also only focussed in CEO education as the main attribute of CEO characteristics. The study did not incorporate CEO professional experience and tenure as attributes of CEO quality thus presenting a conceptual gap.

All the reviewed studies related CEO qualities to firm financial performance instead of firm value. Thus, this presents a conceptual gap. Ghardallou et al (2020) and Saidu (2019) did not

perform their research in Kenya, resulting in a context gaps. Additionally, the studies by Saidu (2019) and Kokeno and Muturi (2016) did not incorporate CEO professional experience and tenure as attributes of CEO quality hence exposing conceptual gap. Thus, the current study endeavoured to fill the aforementioned conceptual and contextual gaps by addressing the research question; what is the effect of CEO quality on the financial performance of firms listed at the Nairobi Securities Exchange?

1.3 Research Objectives

The study's main goal was to see how Chief Executive Officer quality affects the value of firms listed at the Nairobi Securities Exchange.

1.4 Value of the Study

For regulated security exchange stakeholders, the government, the financial sector regulatory authority, investors and scholars, CEO qualities and firm value is of major importance. The study will provide researchers and academicians with a helpful basis for future research on CEO qualities and firm value in the financial sector. Because this study will be among the limited done relating to CEO qualities and firm value of quoted firms, for that reason the findings will be highly beneficial for researches in future and educational purposes due to the fact that it will add on to the empirical literature and educational knowledge. Henceforth, this study will act a benchmark, which other future studies on related areas will review it and acts a source of secondary materials. The results of this research will contribute to the existing set of company value statistics in connection with CEO characteristics. The findings of the study will be used as a reference for later researchers to investigate CEO attributes and its impact on financial performance, and consequently, firm value. Through the study variables on policies and theories that guide them, research outcomes will be a source of important

literature. Researchers interested in investigating complex link among variables would benefit from the study technique, which includes inferential statistics such as linear regression and correlation analyses.

The study will be of great value in policy formulation. The financial markets regulator, the Capital Markets Authority (CMA) will find study discerning as link between CEO characteristics and firm value will be studied and will give insight on how to stimulate the performance of listed companies. The CMA can put in place policy drafts and guidelines aiming to boost capital markets. With the helpful insight by this study, policy draft and guideline will be enhanced relevance and quality. Legislators and policy makers as well can gain from the study which will be useful when they are drafting polices and amending the policies. With good policy drafts and regulatory framework, the quality of policies and legislations will be assured.

Financial analyst mostly performs due diligence and background check on their investment targets. Henceforth, this study will offer them immeasurable insights, which will help them when advising their clients. In addition, they would be able to estimate firm value by using CEO qualities. Thus, they will consider CEO qualities in their analyses. The study will also inform the management of listed firms, as well as other managers in general, to increase the quality of their CEOs in order to boost the value of the respective companies they are managing.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The intention of the chapter is to create insights on the theories of Chief Executive Officer Qualities and firm value to help in the comprehension of their concepts, structures, and the empirical literature on how Chief Executive Officer Qualities influence on firm value. The significance of the chapter is to establish the probable knowledge gaps in the studies undertaken previously by scholars on how firm value is influenced by Chief Executive Officer Qualities.

2.2 Theoretical Foundation

This literature review is about the author's creative work conducted by other scholars concerning on countries' economic growth and how it is influenced by saving. The section encompasses the detailed knowledge of related concepts and provides a platform on which the results will be built upon and in addition overcome the shortcomings of the study. Theories are essential in the various sections as they establish the phenomena and principles that relate to the topic. The theoretical framework depicts the interrelationship between different ideologies and provides the guidelines for the project or business endeavour (Lyon, 1977). The study focussed on the upper echelons, stakeholder, and agency theories.

2.2.1 Upper Echelons Theory

Hambrick and Mason came up with the higher echelons hypothesis (1984). According to the idea, managerial qualities may help predict company results. According to the idea, executives' cognitive foundation and values affect the premise of their unique interpretation of strategic circumstances. It reveals a person's knowledge base, abilities, beliefs, and information processing capacity, all of which affect decision-making (Hambrick, 2007).

Empirical studies that support Hambrick and Mason's (1984) hypothesis indicate that senior management has a significant impact on organizational performance. Bantel and Jackson (1989) and Murray (1989), for example, found a link between top management team demography and company innovation and performance. Douglas and Gregory (1999) attacked top management studies focused on demographics, claiming that construct validity, predictive ability, and prescription pragmatism were sacrificed. Furthermore, according to Carpenter, Geletkanycz, and Sanders (2004), these demographics discovered via empirical research are not always within the control of the CEO and practitioners, and are less susceptible to manipulation by them. For example, if a company's CEO replaces an experienced manager with a younger one, other aspects of the top management team may change.

The hypothesis was significant for the present research as it relates firm performance, and consequently its value, with relation to the CEO's personal or professional history (Wang et al., 2016). The theory says that management qualities may be helpful to forecast the company's results. The current study investigated how the CEO qualities entailing; CEO education, CEO professional experience, and CEO origin, influence firm value.

2.2.2 Stakeholder Theory

Freeman (1984) coined the Stakeholder Theory advocating for the insertion of corporate answerability for the varied stakeholders in an institution. The association is key in influencing the financial outcomes, and ultimately, the value of a company. In perspective, the theory perceives the organization as an input-output model encompassing numerous shareholders of the company, such as the suppliers, employees, stockbrokers, administrative

bodies, audit committee, and community with the stakeholders playing an input role and the output being a company's financial outcomes. The fundamental suggestion of the theory is that the organization's success in achieving accountability standards relies on how relationships with the firm stakeholders are successfully managed. When viewed as such, the conventional view that success is dependent only upon maximising shareholder wealth is left insufficient.

A stakeholder, according to Fernando (2009), is either an individual whose actions affect positively or negatively the attainment of business goals and objectives. Due to increased awareness, there is need for organizations to extend their financial planning through the use of audit committees in order to adapt to changing demands. The same applies for corporate disclosure, which should be incorporated in periodic or annual reports. Other stakeholder theory scholars argue that the management in the organization has a relationship with the employees, suppliers, business partners, and are responsible for guiding the activities between the groups both externally and internally. The theory further stipulates that in a typical business environment, all the stakeholders are equal and should not be discriminated by the management since it creates a bad relationship, which can negatively affect productivity and decision-making (Sendjaya, Sarros, & Santora, 2016).

The theory links to the current study because managers must develop relationships and inspire their stakeholders, who are mainly shareholders. To achieve this, the CEOs and top management must be up to the task of maximizing shareholders wealth and they must have certain qualities. The current study investigated how the CEO qualities entailing; CEO education, CEO professional experience, and CEO origin, influence firm value.

2.2.3 Agency Theory

Jensen and Meckling advanced the Agency Theory in 1976. According to the theory, an association exists amongst the firm's shareholders (principals) and the managers and executives (agents) of the firm. Jensen and Meckling's (1976) agency viewpoint on the theory commends that the separation amongst possession and management could lead in agency difficulties being witnessed by modern firms. The principal who provides the agent with policymaking authority agency bears the expenses emanating from the discrepancy of shareholder's interest with those of firm's bosses. Theoretically, losses occur when management in the business respond in a way that should not serve organization owner (Jensen & Meckling, 1976).

The agency cost is defined as summation of bonding expenses, residual damages and monitoring costs. Monitoring expenses refers to the cost incurred by the principal in constraining the negative actions of the agent. Bonding cost refers to the cost, which is made by the agent in effort of convincing the principal of their commitment. The residual loss can be defined as the differential amongst ownership input and the agent output. In spite of monitoring together with bonding expenses, experienced, residual loss will still be incurred because bosses together with stockholder interests not being completely unified. As per Jensen and Meckling (1976), alignment of interests happens when harmony exists amongst objectives of agents acting within a firm together with those of the firm in totality. Incentives like stock option, gratuities, and profits associated payment could be employed as mechanism of bring into line the agents interest together with those of the principal interests since these are unswervingly connected to how well the findings of administration decision aids the shareholders. This requires for agents to carry out their jobs while maintaining the interest of the principal. The agent is managed by regulations established by principal with

maximisation of shareholder values as core aim (Jensen & Meckling, 1976). However, Fama and Jensen (2005) caution that the managements' earnings should not be based on the company earnings as creates a toxic environment for managing the earnings of the company. To counter this aspect, audit committees have been established as a watchdog to ensure executives are kept in check.

The theory links to the current study because managers with good qualities can realize the objective of maximizing the shareholders wealth by increased financial performance and reduced agency costs. To achieve this, the CEOs and top management must be up to the task of maximizing shareholders wealth and they must have certain qualities. The current study investigated how the CEO qualities entailing; CEO education, CEO professional experience, and CEO origin, influence firm values.

2.3 Determinants of Firm Value

The various firm value determinants are elaborated in this section. These are: CEO qualities, management efficiency, leverage, and firm size.

2.3.1 CEO Qualities

The idea of CEO attributes is in addition to other characteristics that relate to temperamental and intellect, elements of values, behaviours and abilities. The essential characteristics for management may be viewed as a balance with fidelity as the strong and stable foundation and responsibility and respect balanced on both sides (John, 2006). James (2010) defines qualities of managers as the managerial age, education, experience, tenure and functional background. Malmendier et al. (2010) classified CEO qualities as either observable or non-observable characteristics.

From a high-level viewpoint, some attribute company success to a history or personality of the CEO (Wang et al., 2016). Leadership studies connect behavioral features such as leadership styles to business success (Waldman, Ramirez, House & Puranam, 2001). Academic interest has attempted to link executives traits with company results. In principle, they acquired impetus from the landmark paper by Hambrick and Mason (1984), the theory of the top echelons, which says that leader operate on their own experience-based assessment of strategic conditions, ideals and personality (Hambrick, 2007). The study flow has thus developed the individual CEO traits linked to the corporate strategy (Simsek, Heavey & Veiga, 2010).

2.3.2 Management Efficiency

Management efficiency is the percentage of total resources of organizations contributing to productivity during the production process. The higher the percentage, the higher the management efficiency (Maudos & Fernández de Guevara, 2004). Molyneux and Thorton (1992) established existence of positive association amongst profitability and efficiency. Ramlall (2009) also showed that the efficiency level of companies is favorably connected with profitability. Maudos and Fernández de Guevara (2004) states that having a good management implies the ability of selecting high quality assets which have low risk, low liabilities costs and have a high return.

2.3.3 Leverage

Leverage is an investing technique for utilizing borrowed money; in particular, the employment of different financial instrument or borrowed capital, for enhancing investment potential returns. Leverage may also be based on the amount of indebtness a company

employs to fund assets. Corporate finance managers should establish their capital structure so as to decrease capital cost and thus improve worth of the company (Weill, 2008). Managers that are clever enough to recognize and implement the right debt and equity combination are handsomely compensated (Gleason et al., 2000). Normally the leverage has a beneficial effect on the value of the firm because it enhances business performance and efficiency (Ghosh, 2007). Companies having a greater leverage tend to enhance their performance (Weill, 2008). Increased leverage, however, generates greater agency conflicts along with divergent interest among owners and debt holder. The leverage may thus be adversely affected by performances (Myers, 1977).

2.3.4 Firm Size

Firm size denotes the scale of firms' operations (Ehikioya, 2009). Three main measures are applied when measuring firm size and they include sales, total asset and equity market value. The three measures are the mostly used measure of firm size in empirical studies done on corporate finance (Guest, 2008). Hassan and Farouk (2014) established the bigger the business, the greater the profits agency problem that firms may encounter. As indicated by the agency theory advanced by Jensen and Meckling (1976) the management and the ownership of an organization have divergent goals where management are mandated the task of conducting the firm's operations on behalf of the ownership. The theory in a nutshell suggest that both the management and the owner's decisions are inclined to benefiting each interests. Consequently, as the firm size increases its might lead to the management have personal interest to build their empires and hence the reason for large firms experiencing bad governance. Thus, due to bad governance, banks may also experience poor firm values.

2.4 Empirical Literature Review

Several studies relating to CEO qualities and firm value have been done globally as well as regionally and locally. Ghardallou, Borgi, and Alkhalifah (2020) explored impacts of CEO characteristics on company performance on a worldwide scale. It looked at the impact of tenure, experience and CEOs' education on the success of Saudi Arabian businesses. Panel data was used for a four-year period from 2014 to 2017 to analyse a sample of 120 listed companies on the Tadawul Stock Exchange. The study utilized literature review and a panel multiple linear regression model using the GMM estimator to draw the study's conclusions. The study findings enumerated that the CEO educational background significantly impacts on firms' financial performance. Additional study findings unraveled that firms that employ CEOs with accounting, finance, economics and business administration performed better than companies that did not. Further study findings displayed that a firm's stock performance was overall better when the CEO is qualified as a graduate. According to another research, CEOs with expertise in a similar area have a favorable impact on the company's success. The study's ultimate results revealed that having an active CEO improves the success of the company. CEO characteristic is important variables in determining company performance disparities. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The research was not carried out in Kenya, resulting in a contextual gap.

The relationship between CEO qualities and company success was investigated by Kaur and Singh (2018). The CEO characteristics included in the research were CEO gender, duality, nationality, salary, and education level. Financial success was assessed using the Asset Return. The research used a sample of Nifty 500 companies, which account for about 96.1 percent of the free float market capitalization of equities listed on the National Stock

Exchange of India Ltd. The study used balanced panel data of a six year period ranging from 2011 to 2016. The study utilized a panel multiple linear regression model to draw the study's conclusions. According to the results, CEO pay has a strong meaningful link with company performance. However, other research result indicated that CEO citizenship had a strong favourably connection with company performance, with foreign CEOs doing the worst. Consequently, the study findings indicated that educational level, duality and gender CEO did not have a substantial effect on firm financial position. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The study also did not incorporate CEO professional experience and tenure as attributes of CEO quality thus presenting a conceptual gap. Furthermore, the research was not performed in the Kenyan setting with a contextual divide.

Using 200 listed Pakistan firms for a period of 10 years between 2010 and 2019, Abdul et al. (2015) looked at the link between company performance and CEO attributes. The study employed robust Panel Modeling Methodologies as primary data analyses method. The study outcomes revealed CEO tenure, gender, nationality (foreign CEOs), and duality adversely affects performance. However, further study findings revealed that CEO experience and CEO education were significantly favourably link to firm performance. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. Furthermore, the research was not performed in the Kenyan setting with a contextual divide.

Garcia-Blandon et al. (2019) used a sample of the world's best-performing CEOs to investigate the connection between CEO traits and company success. Descriptive statistical methods were used in the empirical study. The research looked at social, environmental, financial and governance (ESG) performance, as well as overall performance. According to

the study's results, there is a significant inverse link between finances and performance. Outsider CEOs beat insider CEOs in total performance, according to the results of the research. According to the third study's findings, CEOs with engineering courses do substantially better. The fourth research found that CEOs who have been with the company for longer had better financial success but worse ESG performance. The study's ultimate conclusion was that the CEO's place of origin is a significant factor in explaining many kinds of performance. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap.

Saidu (2019) investigated the effect of the CEO's ownership, training and origin on corporate success on the regional front. The research utilized the balanced financial sector panel data of companies registered on the Nigerian Stock Exchange for the period from 2011 to 2016. The study utilized a panel multiple linear regression model to draw the study's conclusions. The study findings indicated that CEO education improves profitability. Further results from studies show that stock performance increases if the CEO has previous knowledge of the company before becoming CEO. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The study also did not incorporate CEO professional experience and tenure as attributes of CEO quality thus presenting a conceptual gap. Furthermore, the research was not performed in the Kenyan setting with a contextual divide.

In the local scene, Kokeno and Muturi (2016) examined impacts of CEO features on the performance of NSE listed firms. This study used an explanatory research approach in which all companies registered on NSE are target population. The research used panel data from 2008 to 2014 over a seven-year span. The method for multiple linear regression analyses was

utilized to deduce outcome of research. The results showed that CEO education and age had a favourable impact on organization success. The study findings also revealed that CEO experience significantly increased firm performance. Further study findings revealed that CEO diversity significantly improves firm performance. The study related CEO qualities to firm financial performance instead of firm value thus presenting a conceptual gap. The study also only focussed in CEO education as the main attribute of CEO characteristics. The study did not incorporate CEO professional experience and tenure as attributes of CEO quality thus presenting a conceptual gap.

In Kenya, Rono (2018) examined how financial distress is affected by CEO attributes in commercial banks. Secondary data was examined and presented using descriptive statistic, univariate analysis and multi discriminant analysis. The study applied panel data for a five year period ranging from 2014 to 2017. The findings revealed that there is presence of financial distress in both tier II and tier III commercial banks in Kenya. The main factor that was found to influence the extent of financial distress in commercial banks was CEO tenure. The study related CEO qualities to financial distress instead of firm value thus presenting a conceptual gap. The study was also conducted in the commercial banks context instead of the listed firms context, thus this also brings about a contextual gap.

2.5 Conceptual Framework

Rocco and Plakhotnik (2009) opine that a conceptual framework establishes the basis for research questions and objectives of a study through anchoring the study in the appropriate knowledge constructs. Clearly illustrated, the structure gives the researcher the ability to deduce information. For this research, the independent variables are the CEO attributes which

entail; CEO education, professional experience, and tenure. The moderating variable will be leverage, while the dependent variable is firm value. Figure 2.1 exhibits the conceptual framework developed for this study.

Independent Variables

Chief Executive Officer Qualities

Dependent Variable

Firm Value

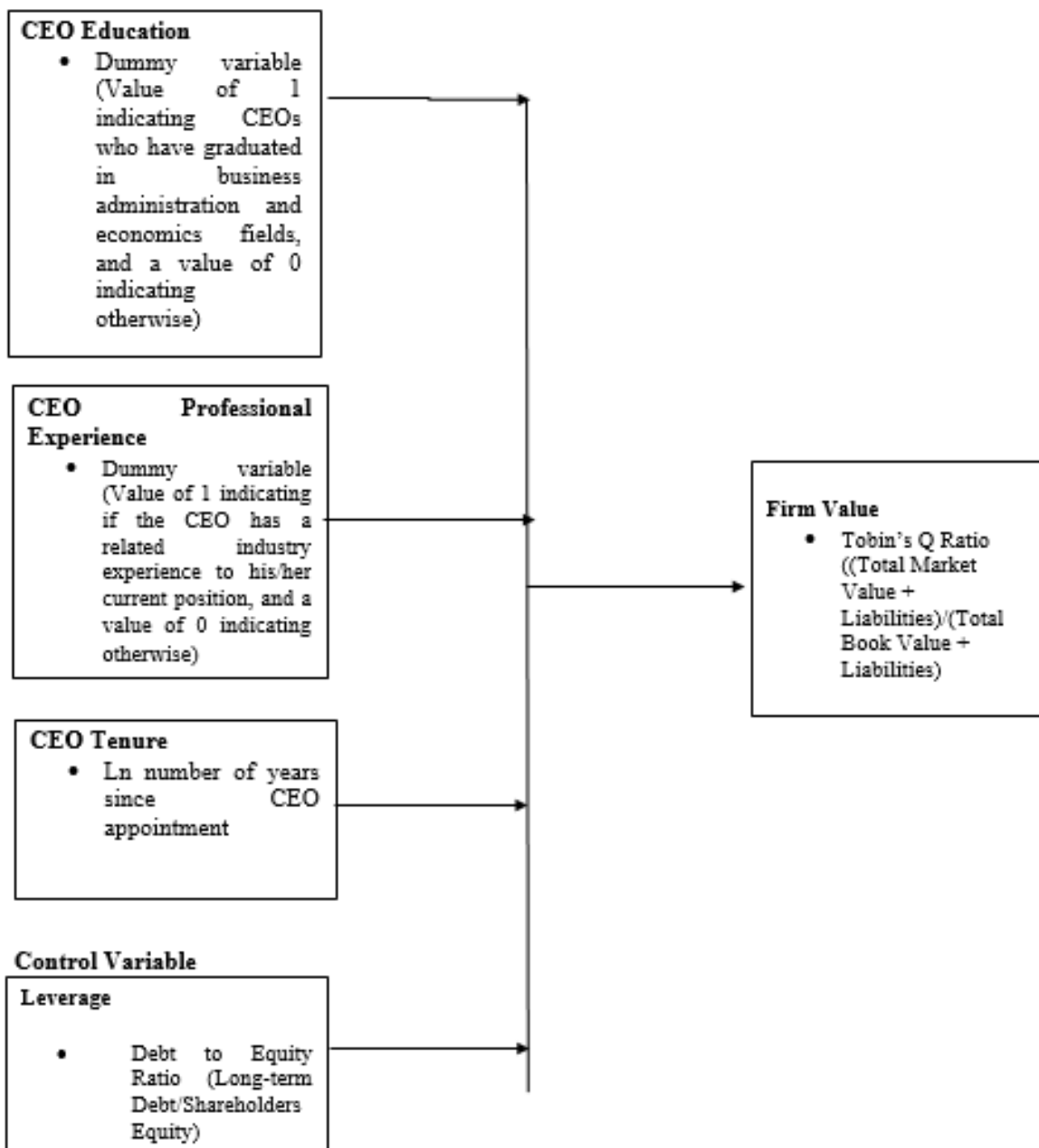


Figure 2.1: Conceptual Model

2.6 Summary of Research Gaps

There was no link between CEO characteristics and company value in any of the research examined, indicating a conceptual flaw. There is a contextual vacuum since the regional and global researches examined were not performed in Kenya. Rono (2018) did not conduct his research in the setting of publicly traded companies, thus there is a contextual gap there as well. Additionally, the studies by Saidu (2019) and Kokeno and Muturi (2016) did not incorporate CEO professional experience and tenure as attributes of CEO quality hence exposing conceptual gaps. Thus, the present investigation endeavoured to fill the aforementioned conceptual and contextual gaps by examining the effect of CEO quality on the financial performance of firms listed at NSE and utilizing the CEO attributes which entail; CEO education, professional experience, and tenure.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter is the blueprint of the research study where it lays out the methodology of the study. It contains numerous subsections which include research design expounding on design applicable to study, target population detailing the population of interest and sampling method applicable if any. Data collection is also looked into where data required is specified and how it is going to be collected. Finally, the chapter show the data analysis technique that will be applied by the researcher.

3.2 Research Design

In a bid to measure the data trends that exists in reference to the topic of study, descriptive research design was utilized. According to Nassaji (2015), the descriptive method gives the researcher a way to compare and contrast the different types of data so as to ascertain trends that exist therein. The study employed the descriptive research design since it could be used to describe different phenomenon and their characteristics. In addition, the data sets produced through the descriptive method help to summarize and support assertion of facts.

Additionally, the current study was a formal study since it borrows from applicable theories and it uses different literatures to guide it. Furthermore, it was an ex-post facto research study since the variables were measured, rather than manipulated. It was a field environment with the country as the unit of study. This design considers factors such as the method of study, variables applied in study, and data collection method.

3.3 Target Population

Zikmund, Babin, Carr, and Griffin (2010) refers population to the total number of individuals or people in a study. The population normally have characteristics that are alike. Grabich (2012) opines that a grouping of elements, events or people which are being examined with the goal being provision of answer to research question denotes a study population. In this study, the population of the study was all 64 listed firms at the NSE as at December 31st 2020, as shown in Appendix I. Since all the whole population was studied, the study was a census.

3.4 Data Collection

Data collection process is very important because of the fact that it has an impact on the authenticity of the study findings. The secondary data was gathered from the individual listed firm's annual reports and financial statements. The annual unit of analysis was used. Data was collected on an annual basis from 2016 to 2020. Data on total market value, total liabilities, and total book value was collected from the individual firms' financial statements. Data on number of years since CEO appointment, CEO education, and CEO experience was gathered from the individual firms' annual reports.

3.5 Data Analysis

In order to simplify the analysis, interpret and comprehend the data collected, it was arranged, tabulated, and simplified. Upon organizing the data, the panel data was analyzed through aid of statistical analysis software known as STATA Version 14. Multiple linear regression and correlation analysis was done. Correlation analysis was able to identify strength and association of predictor variables on response variable. Regression analysis was

used to establish the significance of the association amongst the study variables. Tables were used to present the quantitative results found.

The study maintained the confidence level at 95%. At 0.05 level, the findings are set to be statistical significant and this means that for values to be significant they ought to be below 0.05. In forecasting financial reporting quality a statistical inference technique was used in concluding the accuracy of the model. The 95% confidence level was applied in testing the model significance. The significance values determined how the predictor variables relate to the response variables.

3.5.1 The Study Analytical Model

The research objectives were accomplished by undertaking multiple linear regression analyses, which examined if the independent variables have any impact on firm value. The statistical tests were undertaken at a significance level of 95%, which postulates the margin of error is up to 5%. The below model was applied;

$$Y_{i(t+1)} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \epsilon$$

Where:

$Y_{i(t-1)}$ = Firm Value

α = Constant

$\beta_1 - \beta_4$ = Beta coefficients

X_{1it} = CEO Education

X_{2it} = CEO Work Experience

X_{3it} = CEO Tenure

X_{4it} = Leverage

ϵ = error term

Table 3.1: Operationalization of the Study Variables

Variable	Measurement
Firm Value	Tobin Q Ratio ((Total Market Value + Liabilities)/(Total Book Value + Liabilities) (Tobin, 1969).
CEO Education	Dummy variable (Value of 1 indicating CEOs who have graduated in business administration and economics fields, and a value of 0 indicating otherwise) (Morresi, 2017)
CEO Work Experience	Dummy variable (Value of 1 indicating if the CEO has a related industry experience to his/her current position, and a value of 0 indicating otherwise) (Morresi, 2017)
CEO Tenure	Ln number of years since CEO appointment (Murphy & Zimmerman, 1993).
Leverage	Debt to Equity Ratio (Long-term Debt/Shareholders Equity) (Gleason et al., 2000).

3.5.2 Diagnostic Tests

Various assumptions are made so as to ensure the validity of the linear regression models. The assumption includes; No Multi-collinearity, random sampling of observation, zero conditional mean, linear regression models is “linear in parameter”, spherical error: no auto correlation and there is homoscedasticity and finally the optional assumptions; normal distribution of error terms. The first five linear regression model assumptions, OLS Regression estimators as indicated by Gauss-Markov Theorem is the excellent linear non-biased estimator (Grewal et al., 2004). These assumptions are paramount when undertaking regression and violation of any of them would mean that the regression estimates are rendered unreliable and incorrect. Precisely violation would lead to incorrect meaning of the regression estimate of variation of the estimate would be unreliable leading to confidence interval which are extreme, either too wide or too narrow (Gall et al., 2006).

To guarantee that the assumptions are met such that the best linear unbiased estimators are available, the researcher ought to undertake diagnostic tests. Regression diagnostics evaluate model assumptions and test whether or not there are interpretations with a large, unjustified impact. The data collected was subjected to diagnostic test such as autocorrelation, multicollinearity, linearity and normality so as to find if it is appropriate for conducting linear regression model. Shapiro-Wilk test was applied to test for normality, this is appropriate to test distributions of Gaussian nature that have a specified variance and mean. Linearity implies a direct proportional link between the dependent and independent variable, which follows a corresponding variance in the dependent variable. (Gall et al., 2006). To test for linearity, homoscedasticity was determined and was established by the the Breusch-Pagan Cook-Weisberg Test for Heteroscedacity.

Variance Inflation Factors (VIF) were applied in testing for multicollinearity and they showed whether the predictor variables have a significant correlation on each other. Grewal *et al.* (2004) notes that the primary reason for existence of multicollinearity is having small sample sizes, low measure reliability and low explained variables in the independent variables. Durbin-Watson Statistic tested for existence of autocorrelation.

In addition, unit root testing was performed on the panel data to prevent false regression results. The purpose of unit root testing was to verify whether or not the macroeconomic variables under analysis have been integrated of order one (1, 1) before undertaking estimation procedure. Fisher-type unit root test was used. When the applicable variables are examined over time, the Hausman specification test was performed in order to determine whether they have constant impacts over time or if they have a changing and random effect.

Variables have a random effect was the null hypothesis while variable have a fixed effect was the alternate hypothesis. The null hypothesis would therefore be rejected if the value of the meaning is less than α (0.05) and if the alpha value exceed 0.05 it will lead to rejection of the null hypothesis.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The present chapter focuses on the analysis of data, discussion, and interpretation of the results, which are all presented in the previous chapter. It is divided into three parts, which are as follows: diagnostic tests, inferential statistics, and the interpretation and discussion of findings.

4.2 Response Rate

This study had a population target of all 64 listed firms at the Nairobi Securities Exchange (NSE), as indicated in Appendix I. A census was done to investigate the listed firms. Nonetheless, two firms that merged in 2019, which included NIC Bank PLC and CBA Bank PLC, were analysed as separate entities and also Deacons PLC, which was delisted in 2018, was analysed. This was because the current study used unbalanced panel data analysis. The study therefore used data from 66 listed firms to perform the analysis.

4.3 Diagnostic Tests

To guarantee the Best Linear Unbiased Estimators, diagnostic tests were performed prior to performing linear regression (BLUE). Normality tests, homoscedacity tests, multicollinearity tests, autocorrelation tests were among the diagnostic tests used in this research. To determine normality of the distribution, Shapiro-Wilk test was used. Test of Breusch-Pagan was employed to determine while to establish multi-collinearity, tolerance and VIF were adopted. The Durbin-Watson d statistic was utilized in the study to test for autocorrelation. Additionally, the Fisher-type unit root test was used to conduct the unit root test, while the

Hausman test was also conducted to determine if regression of fixed or variable effects by the panel should be performed.

4.3.1 Normality Test

Table 4.1 emphasizes testing of normal distribution for the study variables.

Table 4.1: Normality Test

Variable	Obs	W	V	z	Prob>z
TobinQ	280	0.16101	168.156	11.99	0
CEOEducation	280	0.91259	17.519	6.699	0
CEOWorkExp~e	280	0.99191	1.622	1.132	0.12879
CEOTenure	280	0.95497	9.025	5.147	0
Leverage	280	0.85535	28.991	7.877	0

The significance values for the firm value, CEO education, CEO tenure, and leverage variables are less than the α values (0.05) as indicated in Table 4.1. Therefore, the variables' data series are not normally distributed. Standardization is the cure for non-normal data. The data series of all variables were thus normalized as a means to correct distribution non-normality. However, the significance values for the CEO work experience variable was greater than the α values (0.05). Therefore, the variables' data series are not normally distributed.

4.3.2 Homoscedasticity Test

Table 4.2 includes homoscedasticity tests of every independent variable used in the research.

The test is used to establish if all the residuals have a constant variance.

Table 4.2: Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity

Ho: Constant variance
Variables: fitted values of TobinQ
chi2(1) = 134.75
Prob > chi2 = 0.0000

The null hypothesis is that there is no homoscedasticity. The study employed a 5% significance levels. The study findings established significance value of (Prob > chi2= 0.0000), which is below the study critical value of ($\alpha=0.05$) leading to rejection of null hypothesis. Thus, all the predictor variable data series employed in the study are heteroscedastic. The current research used robust standard error which is an approach to heteroscedasticity of unbiased standard errors in OLS coefficients.

4.3.3 Test for Multicollinearity

In testing for multicollinearity, Variance Inflation Factors (VIF) were carried out and Table 4.3 below exhibits the findings.

Table 4.3: VIF Multicollinearity Statistics

Variable	VIF	1/VIF
CEOTenure	1.11	0.89765
CEOWorkExp~e	1.09	0.92088
CEOEducation	1.04	0.957331
Leverage	1	0.997037
Mean VIF	1.06	

In statistics, the general principle is that the VIF values ought to be equal to and more than 1 and less than 10. According to this study findings, the VIF values for all the independent variables applied are all equal or greater than 1 and less than 10. This suggests that the independent variables applied in the study do not have multicollinearity.

4.3.4 Tests for Autocorrelation

In autocorrelation testing amongst the predictor variables, the researcher used the Durbin Watson statistics. As per the findings the Durbin Watson d statistics is (5, 280) = 0.6529366. Normally, the Durbin Watson statistics is between value 0 and 4. The value of 2 is revealed in instance where there is no autocorrelation. When the Durbin Watson value is between 0

and below 2, this means that positive autocorrelation exists whereas on the other hand a value more than 2 and less than 4 shows that there is negative autocorrelation. A general principle in statistic indicates that when the Durbin Watson statistic ranges between 1.5 to 2.5 it is regarded as relatively normal and value not ranging within there are value which are of concern (Shenoy & Sharma, 2015). However, Field (2009) states that values above 3 and below 1 are a clear reason to be concerned. Nonetheless, the panel data applied in the current study has serial autocorrelation because the Durbin Watson d statistics obtained is not within the stated threshold. Lagged transformation was applied to the predictor variables as a remedy for autocorrelation.

4.3.5 Unit Root Test

Table 4.4 presents the unit root test findings, which was undertaken on the data series on firm value.

Table 4.4: Unit Root Test for Firm Value

Fisher-type unit-root test for LS.TobinQ			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots		Number of panels	= 57
Ha: At least one panel is stationary		Avg. number of periods	= 2.88
AR parameter: Panel-specific		Asymptotics: T -> Infinity	
Panel means: Included			
Time trend: Not included			
Drift term: Not included		ADF regressions: 0 lags	
		Statistic	p-value
Inverse chi-squared(106)	P	0.0000	1.0000
Inverse normal	Z	.	.
Inverse logit t(4)	L*	.	.
Modified inv. chi-squared	Pm	-7.2801	1.0000

According to the null hypothesis, there is unit root in firm value whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value

for the P and Pm tests are greater than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is not rejected implying that the data series has unit root. The variable data series was first differentiated as unit root remedy.

Table 4.5 exhibits the findings of the unit root test done on CEO Education.

Table 4.5: Unit Root Test for CEO Education

Fisher-type unit-root test for LS.CEOEducation			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	57
Ha: At least one panel is stationary	Avg. number of periods	=	2.88
AR parameter: Panel-specific	Asymptotics: T -> Infinity		
Panel means: Included			
Time trend: Not included			
Drift term: Not included	ADF regressions: 0 lags		
	Statistic	p-value	
Inverse chi-squared(106) P	0.0000	1.0000	
Inverse normal Z	.	.	
Inverse logit t(4) L*	.	.	
Modified inv. chi-squared Pm	-7.2801	1.0000	

According to the null hypothesis, there is unit root in CEO education whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P and Pm tests are greater than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is not rejected implying that the data series has unit root. The variable data series was first differentiated as unit root remedy.

Table 4.6 exhibits the findings of the unit root test done on CEO work experience. According to the null hypothesis, there is unit root in CEO work experience whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P and Pm tests are greater than the study critical value of ($\alpha=0.05$), thus, the null

hypothesis is not rejected implying that the data series has unit root. The variable data series was first differentiated as unit root remedy.

Table 4.6: Unit Root Test for CEO Work Experience

Fisher-type unit-root test for LS.CEOWorkExperience			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	57
Ha: At least one panel is stationary	Avg. number of periods	=	2.88
AR parameter: Panel-specific	Asymptotics: T -> Infinity		
Panel means: Included			
Time trend: Not included			
Drift term: Not included	ADF regressions: 0 lags		
	Statistic	p-value	
Inverse chi-squared(106) P	0.0000	1.0000	
Inverse normal Z	.	.	
Inverse logit t(4) L*	.	.	
Modified inv. chi-squared Pm	-7.2801	1.0000	

Table 4.7 exhibits the findings of the unit root test done on CEO tenure.

Table 4.7: Unit Root Test for CEO Tenure

Fisher-type unit-root test for LS.CEOTenure			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	57
Ha: At least one panel is stationary	Avg. number of periods	=	2.88
AR parameter: Panel-specific	Asymptotics: T -> Infinity		
Panel means: Included			
Time trend: Not included			
Drift term: Not included	ADF regressions: 0 lags		
	Statistic	p-value	
Inverse chi-squared(106) P	0.0000	1.0000	
Inverse normal Z	.	.	
Inverse logit t(4) L*	.	.	
Modified inv. chi-squared Pm	-7.2801	1.0000	

According to the null hypothesis, there is unit root in CEO tenure whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P and Pm tests are greater than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is not rejected implying that the data series has unit root. The variable data series was first differentiated as unit root remedy.

Table 4.8 exhibits the findings of the unit root test done on leverage.

Table 4.8: Unit Root Test for Leverage

Fisher-type unit-root test for LS.Leverage			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots		Number of panels =	57
Ha: At least one panel is stationary		Avg. number of periods =	2.88
AR parameter: Panel-specific		Asymptotics: T \rightarrow Infinity	
Panel means: Included			
Time trend: Not included			
Drift term: Not included		ADF regressions: 0 lags	
		Statistic	p-value
Inverse chi-squared(106) P		0.0000	1.0000
Inverse normal Z		.	.
Inverse logit t(4) L*		.	.
Modified inv. chi-squared Pm		-7.2801	1.0000

According to the null hypothesis, there is unit root in leverage whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P and Pm tests are greater than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is not rejected implying that the data series has unit root. The variable data series was first differentiated as unit root remedy.

4.3.6 Test for Random and Fixed Effects

In determining if the variables had a fixed effect or a random and changing effect overtime, the researcher undertook the Hausman test. Table 4.9 presents the findings on the Hausman test of specification.

Table 4.9: Hausman Test of Specification

	---- Coefficients ----			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
CEOEducation	-0.65369	-0.08937	-0.56432	3.343829
CEOWorkExp~e	-0.43623	0.548932	-0.98516	1.769607
LnCEOTenure	-0.82779	-0.76564	-0.06215	0.230822
Leverage	1.200425	1.080801	0.119624	0.554502

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

$$\text{chi2}(4) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 0.90$$

$$\text{Prob}>\text{chi2} = 0.9247$$

In this test the null hypothesis was that the variables have random effect whereas the variables have fixed effect was the alternative hypothesis. The null hypothesis would be rejected if the significance value produced is below the alpha value ($\alpha=0.05$) whereas on the

contrast it would not be rejected when the significance value is greater the alpha value ($\alpha=0.05$). If the statistics of the Hausman chi-square tests are negative the alternative hypothesis taken since the p value equals asymptotically 1. As indicated by the findings ($\text{Prob}>\chi^2=0.9274$), the variables have a random effect and a random effect panel model will be applied. This is a result of the significance value being greater than the alpha value ($\alpha=0.05$), which lead to the null hypothesis not being rejected.

4.4 Inferential Statistics

The researcher did the inferential statistics with the aim of establishing the association, direction, and strength of the relationship amongst the independent and control variables utilized in the study on the financial performance. The inferential statistics undertaken consisted of correlation analysis and multiple linear regression analysis.

4.4.1 Correlation Analysis

Correlation analysis indicates the relationship that exist between two variables. The association varies from strong negative correlation to perfect positive correlation. The researcher employed the Pearson correlation analysis to establish the association of the independent and control variables utilized in the study on the financial performance of commercial banks. The study was applied at 95% confidence level and a two tail test was used .

Table 4.10: Correlation Analysis

	TobinQ	CEOEdu~n	CEOWor~e	LnCEOT~e	Leverage
TobinQ	1.0000				
CEOEducation	0.0463 0.4399	1.0000			
CEOWorkExp~e	0.0691 0.2491	0.0588 0.3265	1.0000		
LnCEOTenure	-0.0754 0.2082	-0.1739 0.0035	0.2579 0.0000	1.0000	
Leverage	0.0285 0.6345	0.0346 0.5639	0.0439 0.4643	0.0032 0.9575	1.0000

As shown in table 4.10, with significance level at 5%, CEO education, CEO work experience, CEO tenure, and leverage do not have a significant correlation with firm value. This is because their significance values are greater than the study's critical value ($\alpha=0.05$). The null hypothesis is that there is no significant correlation between each of the predictor variables and the response variable. The alternate hypothesis is that there is a significant correlation between each of the predictor variables and the response variable. Since the significance values of all the predictor variables are all greater than the the study's critical value ($\alpha=0.05$), the null hypothesis is not rejected. Thus, CEO education, CEO work experience, CEO tenure, and leverage do not have a significant correlation with firm value.

4.3.2 Multiple Linear Regression

The effect of CEO education, CEO work experience, CEO tenure, and leverage on firm value was established through the random effect panel multiple regression analysis which was undertaken at the significance level of 5%. The researcher compared the significance value shown in the ANOVA model with those got from the study. The significance values obtained

for the model coefficients were also compared to the significance value of 0.05. Table 4.11 exhibits the findings.

Prior to carrying out the multiple linear regression analysis, the variables had to be modified as the normality, homoscedasticity, autocorrelation, and stationarity criteria were not met. Since all the variables used in the current study did not meet the normality condition, they were standardised in order to correct the non-normality. The "robust standard errors" approach for identifying unbiased standard errors in OLS coefficients during heteroscedasticity was used because of the data series of predictors used during the current study showing heteroscedasticity. Lagged transformation was applied to the predictor variables as a remedy for autocorrelation. Finally, the data series of all the variables was first differentiated as unit root remedy.

Table 4.11: Random Effects Panel Multiple Linear Regression

```

Random-effects GLS regression           Number of obs   =       164
Group variable: Number                 Number of groups =        57

R-sq:  within = 0.0006                  Obs per group:  min =         1
        between = 0.0099                  avg =           2.9
        overall = 0.0032                  max =           3

                                         Wald chi2(4)     =         6.27
corr(u_i, X) = 0 (assumed)              Prob > chi2      =        0.1800

```

(Std. Err. adjusted for 57 clusters in Number)

dzFirmSize	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
dzCEOeduca~1	.0092195	.0292915	0.31	0.753	-.0481907	.0666298
dzCEOWorkE~1	-.0354337	.041783	-0.85	0.396	-.1173268	.0464595
dzCEOTenur~1	-.0312507	.0178349	-1.75	0.080	-.0662065	.003705
dzLeverage_1	.0031511	.0140779	0.22	0.823	-.0244411	.0307432
_cons	-.0540074	.0504954	-1.07	0.285	-.1529766	.0449618
sigma_u	.24451661					
sigma_e	.50452031					
rho	.19020946	(fraction of variance due to u_i)				

The R^2 indicates that the variations in the dependent variable (firm value) which emanates from the changes in the independent variables. The overall R^2 value from the findings is 0.0032 which implies that 0.32% of firm value changes are as a result of changes in the model entailing; CEO education, CEO work experience, CEO tenure, and leverage. This implied that other variables which are not incorporated in the model are attributable to the 99.68% of the changes in firm value.

Table 4.11 further illustrates that the model consisting of CEO education, CEO work experience, CEO tenure, and leverage does not significantly predict firm value. This is because the significance value obtained for the model ($\text{Prob} > \chi^2 = 0.1800$) is below the study critical value ($\alpha = 0.05$). This means that the model entailing CEO education, CEO work experience, CEO tenure, and leverage does not significantly forecast firm value.

The results in Table 4.11 finally demonstrate that CEO education, CEO work experience, CEO tenure, and leverage do not each individually have a significant relationship with firm value. This is because their respective significance levels are greater than the study critical value ($\alpha = 0.05$).

4.4 Interpretation and Discussion of Findings

This study aimed at finding the effect of CEO quality on the value of firms listed at the Nairobi Securities Exchange. It also aimed at unravelling the impact of CEO education, CEO work experience, CEO tenure, and leverage on the value of firms listed at the Nairobi Securities Exchange.

The study findings established that CEO education, CEO work experience, CEO tenure, and leverage do not have a significant correlation with firm value at the 5% significance level.

Further study findings established that the model entailing; CEO education, CEO work experience, CEO tenure, and leverage explains firm value to a very least extent with a coefficient of determination value of 0.32%. Additional study findings were that that the model consisting of CEO education, CEO work experience, CEO tenure, and leverage does not significantly predict firm value. Final study findings were that CEO education, CEO work experience, CEO tenure, and leverage do not each individually have a significant relationship with firm value.

The current study finding that CEO qualities has no significant effect on firm value contradicts the upper echelons theory which postulates that the qualities of managers may be helpful in forecasting the firm's results. The study finding is also not in tandem with the stakeholder theory which postulates that managers must develop relationships and inspire their stakeholders, who are mainly shareholders and to achieve this, the CEOs and top management must be up to the task of maximizing shareholders wealth and they must have certain qualities. Additionally, the study finding is also not congruent to the agency theory which stipulates that managers with good qualities can realize the objective of maximizing the shareholders wealth by increased financial performance and reduced agency costs. To achieve this, the CEOs and top management must be up to the task of maximizing shareholders wealth and they must have certain qualities.

Managers are nearly usually blamed and praised for a company's successes and failures. Executive managers encourage growth and management of complexities, while maintaining control of expenditures in a continuously fluctuating environment (Diks, 2016). Executive managers make critical strategic choices that determine whether or not a company will survive (Bandiera, Prat, Hansen & Sadun, 2020). Furthermore, their job is becoming

increasingly focused on growth investment problems in order to start a profound organizational change and create value (Al-Ghamdi & Rhodes, 2015). As a result, executive directors' qualities, such as those of Chief Executive Officers (CEOs), are important (Bandiera et al., 2020). These assertions are in contradiction to the current study finding that CEO qualities has no significant effect on firm value.

Ghardallou, Borgi, and Alkhalifah (2020) explored impacts of CEO characteristics on company performance on a worldwide scale. It looked at the impact of tenure, experience and CEOs' education on the success of Saudi Arabian businesses. The study findings enumerated that the CEO educational background significantly impacts on firms' financial performance and that firms that employ CEOs with accounting, finance, economics and business administration performed better than companies that did not. Further research findings revealed that CEOs with expertise in a similar area have a favorable impact on the company's success. The study concluded that CEO characteristic is important variables in determining company performance disparities. The current study findings that CEO qualities do not significantly affect firm value and that CEO education and CEO work experience neither have a significant association nor relationship with firm value contradict this study.

The relationship between CEO qualities and company success was investigated by Kaur and Singh (2018). The CEO characteristics included in the research were CEO gender, duality, nationality, salary, and education level. The study findings indicated that educational level does not have a substantial effect on firm financial position. The current study findings that CEO education neither has a significant association nor relationship with firm value contradict this study.

Using 200 listed Pakistan firms, Abdul et al. (2015) looked at the link between company performance and CEO attributes. The study outcomes revealed CEO tenure adversely affects performance. However, further study findings revealed that CEO experience and CEO education were significantly favourably link to firm performance. The current study findings that CEO education, CEO work experience, and CEO tenure neither have a significant association nor relationship with firm value contradict this study.

Garcia-Blandon et al. (2019) used a sample of the world's best-performing CEOs to investigate the connection between CEO traits and company success. One of the study finding was that CEOs who have been with the company for longer had better financial success. The current study finding that CEO tenure neither has a significant association nor relationship with firm value contradict this study.

Saidu (2019) investigated the effect of the CEO's ownership, training and origin on corporate success of companies registered on the Nigerian Stock Exchange. The study findings indicated that CEO education improves profitability. Further results from studies show that stock performance increases if the CEO has previous knowledge of the company before becoming CEO. The current study findings that CEO education and CEO work experience neither have a significant association nor relationship with firm value contradict this study.

Kokeno and Muturi (2016) examined impacts of CEO features on the performance of NSE listed firms. The study results showed that CEO education has a favourable impact on organization success. The study findings also revealed that CEO experience significantly increased firm performance. The current study findings that CEO education and CEO work experience neither have a significant association nor relationship with firm value contradict this study.

Rono (2018) examined how financial distress is affected by CEO attributes in commercial banks. The study findings revealed that there is presence of financial distress in both tier II and tier III commercial banks in Kenya and the main factor that was found to influence the extent of financial distress in commercial banks was CEO tenure. The current study finding that CEO tenure neither has a significant association nor relationship with firm value contradict this study.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The overview of the research results, as well as conclusions and suggestions for policymakers and practitioners, are all included in this section. In addition, the study limitations and recommendations for further research are discussed.

5.2 Summary

The main goal of the current study was to determine the effect of CEO quality on the value of firms listed at the Nairobi Securities Exchange. It also aimed at unravelling the impact of CEO education, CEO work experience, CEO tenure, and leverage on the value of firms listed at the Nairobi Securities Exchange. The analysis of the data collected and the interpretation of the results were therefore carried out in accordance with the stated general and specific goals.

Multiple linear regression and correlation analysis were comprehensively used to achieve the study objectives. The examination of the correlation used in the research found out that CEO education, CEO work experience, CEO tenure, and leverage do not have a significant correlation with firm value at the 5% significance level. The multiple linear regression revealed that the model entailing CEO education, CEO work experience, CEO tenure, and leverage explains firm value to a very small extent default rate by having a co-efficient of determination of 0.32%. Further findings were that the model entailing; CEO education, CEO work experience, CEO tenure, and leverage does not significantly predict firm value. The final findings were that CEO education, CEO work experience, CEO tenure, and leverage did not individually have a significant relationship with firm value.

5.3 Conclusion

This section contains the research's conclusion. The conclusion is written in accordance with the study's overarching objective. The study's broad objective was to determine the effect of CEO quality on the value of firms listed at the Nairobi Securities Exchange. The study concluded that CEO qualities do not significantly impact on firm value. The study's also sought to determine the effect of CEO education, CEO work experience, CEO tenure, and leverage on the value of firms listed at the Nairobi Securities Exchange. The study concluded that CEO education, CEO work experience, CEO tenure, and leverage do not significantly impact on firm value.

5.4 Recommendations

Those who will conduct future research in the area of finance will benefit from the results of this study in regards to CEO qualities and firm value. Subsequent researchers interested in CEO qualities and firm value will use the study results as a reference. The study will bring about firm banks' value. Similarly, the work will provide resourceful material for future scholars and researcher interested in the subject of CEO qualities and the firm value.

Policy recommendations are made to the government officials and policy formulators in the financial sector, mainly the regulator, the Capital Markets Authority (CMA), and the Treasury, that since it has been established that CEO qualities do not have a significant influence on firm value, the policy makers should not focus on CEO qualities when endeavouring to boost firm value in order to spur the development of capital markets. The research project findings will serve as a road-map for key government bodies and authorities as they develop policies and procedures to strengthen the financial sector. The current study findings will provide empirical findings to the government and other relevant agency to help

guide the formulation and implementation of relevant policies and regulation.

The finding of the study that CEO qualities and leverage do not have a significant influence on firm value generates recommendations to the financial analysts not to estimate market capitalization, and by extension, securities value, by using CEO qualities, and in extension, leverage. To be able to predict bear and bull markets, they should mostly perform due diligence and background check on their investment targets. Henceforth, this study will offer them immeasurable insights, which will help them when advising their clients. Consultants and listed firms practitioners should not mainly focus on CEO qualities to time strategies like securities exchange listings, rights issues, and dividend pay-outs.

5.5 Recommendations for Further Study

To explore the impact of CEO qualities on firm value is very important for financial sector policy makers, mainly regulators such as the Capital Markets Authority (CMA), and as well as National Treasury, practitioners in the capital markets, financial analysts, managers of listed firms, and consultants.

However, the current study has been performed in the context of capital markets; the same study might be repeated on other market segments and also across various sectors of the economy to see if the current study results were contained. The present research has been performed solely in Kenya, additional investigations may be carried out in Kenya, in African or global settings to determine if current results of the studies are conveyed.

The present research has solely included the CEO quality aspects that included; education, CEO work experience, and CEO tenure. Further research can be done when including other

aspects of CEO qualities. Additionally, leverage was solely utilized as the study's control variable. A research may be carried out to see if there are other variables that moderate, intervene, or mediate the connection between CEO qualities and firm value.

This study has only utilized secondary data, the study can be followed by studies using primary data. This may either compliment or criticize the current study findings. The statistical analytical techniques of the present research were multiple linear regressions and correlation analyses. Additional methodologies for statistical analysis, for instance; descriptive statistics, cluster analyses, discriminant analysis, granger causality, components analysis, among other methodologies, can be incorporated in further studies.

5.6 Limitations of the Study

The present research was a formal study and it applied the deductive research approach for the reason that it was guided by pertinent literature and theories to further test the theories and empirical literature findings. Employing theories and previous empirical literature assists in laying the groundwork for comprehending the research issue being investigated. However, there was absence of previous researches on the effect of government bond yields on the equity market segment performance. The research was carried out solely in the Kenyan capital markets sector in view of time and financial limitations, which does not clearly demonstrate the present outcome if other sectors of economy are taken into consideration. In addition, there would be more uncertainty if comparable research were repeated in other nations.

Although the research engaged secondary sources of data, there were some major challenges like some of the data being not readily available; especially data on collateral and it took

great lengths and costs to obtain it. The data was not utilized in their raw form and further calculations and manipulations of the data were required. Impending delays were experienced due to data processing and further editing before the compilation by the researcher.

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APPENDICES

Appendix 1: Companies Listed at the Nairobi Securities Exchange

Agricultural	
Ticker	Company Name
<u>EGAD</u>	<u>Eaagads Limited</u>
<u>KUKZ</u>	<u>Kakuzi Limited</u>
<u>KAPC</u>	<u>Kapchorua Tea Company Limited</u>
<u>LIMT</u>	<u>Limuru Tea Company Limited</u>
<u>SASN</u>	<u>Sasini Tea and Coffee</u>
<u>WTK</u>	<u>Williamson Tea Kenya Limited</u>
Automobiles and Accessories	
Ticker	Company Name
<u>G&G</u>	<u>Car & General Kenya</u>
Banking	
Ticker	Company Name
<u>BBK</u>	<u>Barclays Bank of Kenya</u>
<u>CFC</u>	<u>CfC Stanbic Holdings</u>
<u>DTK</u>	<u>Diamond Trust Bank Group</u>
<u>EQTY</u>	<u>Equity Group Holdings Limited</u>
<u>HFCK</u>	<u>Housing Finance Company of Kenya</u>
<u>I&M</u>	<u>I&M Holdings Limited</u>
<u>KCB</u>	<u>Kenya Commercial Bank Group</u>
<u>NBK</u>	<u>National Bank of Kenya</u>
<u>NIC</u>	<u>National Industrial Credit Bank</u>
<u>SCBK</u>	<u>Standard Chartered of Kenya</u>
<u>COOP</u>	<u>Cooperative Bank of Kenya</u>

Construction and Allied	
Ticker	Company Name
<u>ARM</u>	<u>ARM Cement Limited</u>
<u>BAMB</u>	<u>Bamburi Cement Limited</u>
<u>BERG</u>	<u>Crown-Berger (Kenya)</u>
<u>CABL</u>	<u>East African Cables Limited</u>
<u>PORT</u>	<u>East Africa Portland Cement Company</u>

Investment Services	
Ticker	Company Name
<u>NSE</u>	<u>Nairobi Securities Exchange</u>

Commercial and Services	
Ticker	Company Name
<u>XPRS</u>	Express Kenya Limited
<u>KQ</u>	Kenya Airways
<u>LKL</u>	Longhorn Kenya Limited
<u>EVRD</u>	Eveready East Africa
<u>SCAN</u>	<u>Scangroup</u>
<u>NMG</u>	Nation Media Group
<u>SGL</u>	Standard Group Limited
<u>FIRE</u>	Sameer Africa Limited
<u>TPSE</u>	<u>TPS Serena</u>
<u>UCHM</u>	<u>Uchumi Supermarkets</u>
Energy and Petroleum	
Ticker	Company Name
<u>KEGN</u>	<u>Kengen</u>
<u>KENO</u>	<u>KenolKobil</u>
<u>KPLC</u>	Kenya Power and Lighting Company
<u>TOTL</u>	Total Kenya Limited
<u>UMME</u>	<u>Umeme</u>
Insurance Segment	
Ticker	Company Name
<u>BRIT</u>	British-American Investments Company
<u>CIC</u>	<u>CIC Insurance Group</u>
<u>CFCI</u>	Liberty Kenya Holdings Limited
<u>JUB</u>	Jubilee Holdings Limited
<u>KNRE</u>	Kenya Reinsurance Corporation
<u>PAFR</u>	Sanlam Kenya <u>Plc</u>

Investments	
Ticker	Company Name
<u>ICDC</u>	Centum Investment Company
<u>OCH</u>	Olympia Capital Holdings
<u>HAFR</u>	Home <u>Afrika Ltd</u>
<u>TCL</u>	<u>TransCentury Investments</u>
Manufacturing and Allied	
Ticker	Company Name
<u>BOC</u>	BOC Kenya Limited
<u>BAT</u>	British American Tobacco Limited
<u>CARB</u>	<u>Carbacid Investments Limited</u>
<u>EABL</u>	East African Breweries
<u>EVRD</u>	Eveready East Africa
<u>ORCH</u>	Kenya Orchards Limited

Telecommunication and Technology	
Ticker	Company Name
<u>SCOM</u>	<u>Safaricom</u>

Source: Nairobi Securities Exchange Website (2021)

Appendix II: Data Collection Form

Name of Company					Sector
	Year				
Data	2016	2017	2018	2019	2020
Total Market Value					
Total Book Value					
Liabilities					
Tobin's Q Ratio					
CEO Education					
CEO Work Experience					
Number of years since CEO appointment					
CEO Tenure					
Long-Term Debt					
Shareholders' Equity					
Debt to Equity Ratio					

Appendix III: Research Data

Number	COMPANY	Year	Common shares outstanding	share price	Market Value	Total Liabilities	Total assets	Tobin Q	CEO Education	CEO Work Experience	CEO Tenure	Ln CEO Tenure	Long-Term Debt	Leverage
1	Athi river mining	2017	959940200	13	12479223	21883543	42699067	0.532075	0	1	8	2.079442	1370406	0.109815
1	Athi river mining	2016	848940000	25.5	21647970	23263681	51058802	0.604281	0	1	7	1.94591	3860029	0.178309
2	Bamburi	2020	362959275	80	29036742	16953000	49085000	0.696413	1	1	5	1.609438	8292269	0.285578
2	Bamburi	2019	362959275	132.5	48092104	16876000	50357000	0.966313	1	1	4	1.386294	8006696	0.166487
2	Bamburi	2018	362959275	180	65332670	14003000	47203000	1.296207	1	1	3	1.098612	9669448	0.148003
2	Bamburi	2017	362959275	160	58073484	10992000	40811000	1.333233	1	1	2	0.693147	7221815	0.124357
2	Bamburi	2016	362959275	175	63517873	12324000	42030000	1.395332	1	1	1	0	6141519	0.09669
3	Car & General	2020	40103308	26	1042686	7871230	11483744	0.460549	0	0	7	1.94591	114886.5	0.110183
3	Car & General	2019	40103308	21.5	862221.1	6569541	10173507	0.443872	0	0	6	1.791759	113722	0.131894
3	Car & General	2018	40103308	21	842169.5	5750532	9267544	0.438984	0	0	5	1.609438	123424.2	0.146555
3	Car & General	2017	40103308	27	1082789	6466659	9705198	0.466826	0	0	4	1.386294	140960.1	0.130182
3	Car & General	2016	40103308	39.5	1584081	5966934	8988047	0.504916	0	0	3	1.098612	135543.8	0.085566
4	Carbacid	2020	254851985	8.02	2043913	375473	3503501	0.623718	1	1	8	2.079442	220841.5	0.108048
4	Carbacid	2019	254851985	15.4576	3939400	327019	3371233	1.153631	1	1	7	1.94591	233334.8	0.059231

4	Carbacid	2018	254851985	18.60 64	474187 9	382890	33069 74	1.38887 8	1	1	6	1.791759	301028. 7	0.0634 83
4	Carbacid	2017	254851985	30.82 54	785591 4	407570	30817 68	2.36821	1	1	5	1.609438	557539. 1	0.0709 71
4	Carbacid	2016	254851985	132.2 107	336941 56	491701	29687 27	9.87908 3	1	1	4	1.386294	2623334	0.0778 57
5	Crown Berger	2020	71181000	62.5	444881 3	4810928 .138	51064 74.9	0.93368 6	1	1	7	1.94591	366510. 1	0.0823 84
5	Crown Berger	2019	71181000	80	569448 0	4448833	54756 93	1.02204 5	1	1	6	1.791759	628923. 8	0.1104 44
5	Crown Berger	2018	71181000	80	569448 0	4113991	58716 07	0.98226 2	1	1	5	1.609438	287174. 4	0.0504 3
5	Crown Berger	2017	71181000	42	298960 2	3496913	50590 29	0.75813	1	1	4	1.386294	145787. 6	0.0487 65
5	Crown Berger	2016	71181000	61	434204 1	3186366	45391 48	0.97448 6	1	1	3	1.098612	200788. 2	0.0462 43
6	East Africa Cables	2020	253125000	2.5	632812 .5	4145373	62748 77	0.45854 8	1	1	8	2.079442	241798. 8	0.3821 02
6	East Africa Cables	2019	253125000	2.72	688500	5102392	66036 60	0.49469 2	1	1	7	1.94591	73191.8 2	0.1063 06
6	East Africa Cables	2018	253125000	5.45	137953 1	5159619	70384 21	0.53608 2	1	1	6	1.791759	233842. 8	0.1695 09
6	East Africa Cables	2017	253125000	5.95	150609 4	4991997	75484 06	0.51817 2	1	1	5	1.609438	333779. 6	0.2216 19
6	East Africa Cables	2016	253125000	10.6	268312 5	5234156	83841 43	0.58137 1	1	1	4	1.386294	665344. 1	0.2479 74
7	E.A Portland	2020	90000000	14.5	130500 0	1698082 8.25	52859 296	0.26182 4	1	1	7	1.94591	183200. 6	0.1403 84
7	E.A Portland	2019	90000000	16	144000 0	1333147 5	38027 520	0.28761 2	1	1	6	1.791759	224768. 4	0.1560 89
7	E.A Portland	2018	90000000	27	243000 0	1046640 5	27357 388	0.34096	1	1	5	1.609438	430562. 5	0.1771 86
7	E.A Portland	2017	90000000	23.5	211500 0	9895360	27842 120	0.31826 1	1	1	4	1.386294	506739. 7	0.2395 93

7	E.A Portland	2016	90000000	46.75	420750 0	9302989	23112 582	0.41679	1	1	3	1.098612	149778. 1	0.0355 98
8	Eveready	2020	210000000	1.1	231000	138525	24852 6	0.95471 9	1	0	3	1.098612	3561.81 8	0.0154 19
8	Eveready	2019	210000000	3.543	744030	136101	57376 8	1.23985	1	0	2	0.693147	8519.27 3	0.0114 5
8	Eveready	2018	210000000	3.639 876	764374	223282	77265 2	0.99168 8	1	0	1	0	6245.27 1	0.0081 7
8	Eveready	2017	210000000	3.407 54	715583 .3	596228	10828 06	0.78128 9	1	0	6	1.791759	25595.8 2	0.0357 69
8	Eveready	2016	210000000	2.580 242	541850 .8	705377	15116 65	0.56256 4	1	0	5	1.609438	84455.3 9	0.1558 65
9	Kakuzi	2020	19599999	340	666400 0	3364404	68680 15	0.98006 2	1	1	8	2.079442	988883	0.1483 92
9	Kakuzi	2019	19599999	310	607600 0	1271566	59410 42	1.01871 1	1	1	7	1.94591	853529. 2	0.1404 76
9	Kakuzi	2018	19599999	329	644840 0	1424090	57461 26	1.09794 3	1	1	6	1.791759	1020427	0.1582 45
9	Kakuzi	2017	19599999	309	605640 0	1218156	50644 14	1.15789 5	1	1	5	1.609438	1485715	0.2453 13
9	Kakuzi	2016	19599999	317	621320 0	1111309	30251 08	1.77073 7	1	1	4	1.386294	2757632	0.4438 34
10	Kengen	2020	6594522339	5.72	377206 68	1847163 34.6	38199 4697	0.39250 5	1	0	2	0.693147	1740205 8	0.4613 4
10	Kengen	2019	6594522339	7	461616 56	1892493 80	37935 3005	0.41401 7	1	0	1	0	2217377 1	0.4803 5
10	Kengen	2018	6594522339	8.55	563831 66	1938936 69	37672 9582	0.43860 3	1	0	7	1.94591	2623719 1	0.4653 37
10	Kengen	2017	6243873779	5.8	362144 68	1943529 85	36673 8366	0.41092 7	1	0	6	1.791759	0	0
10	Kengen	2016	2198361456	7.1	156083 66	1818673 35	34252 0000	0.37658 4	1	0	5	1.609438	0	0
11	Kenolkobil	2018	1471761200	19.5	286993 43	1134405 1.78	23996 791	1.13306 3	1	1	9	2.197225	0	0

11	Kenolkobil	2017	1471761200	14	206046 57	1261318 3	24099 030	0.90481 7	1	1	8	2.079442	1017149 9	0.4936 51
11	Kenolkobil	2016	1471761200	14.9	219292 42	1402430 0	24201 705	0.94055 2	1	1	7	1.94591	1251750 2	0.5708 13
12	KPLC	2020	1951467045	2.81	548362 2	2770700 97.7	38199 4697	0.42871 9	1	1	2	0.693147	3410258	0.6218 99
12	KPLC	2019	1951467045	4.07	794247 1	2724478 00	33665 5189	0.46033 3	1	1	1	0	4377336	0.5511 3
12	KPLC	2018	1951467045	9.1	177583 50	2679026 15	33123 6232	0.47678 6	1	1	1	0	1322793 9	0.7448 86
12	KPLC	2017	1951467045	8.15	159044 56	2302033 16	28958 2797	0.47347 9	0	0	4	1.386294	1118739	0.0703 41
12	KPLC	2016	1951467045	13.2	257593 65	1920305 42	27549 3150	0.46583 7	0	0	3	1.098612	2089708 3	0.8112 42
13	KQ	2020	5823902621	2.05	119390 00	2135690 00	19567 3000	0.55103 8	1	0	2	0.693147	9080496	0.7605 74
13	KQ	2019	5823902621	8.9	518327 33	1391230 00	13663 4000	0.69247 8	1	0	1	0	3048703 0	0.5881 81
13	KQ	2018	1496469035	17.15	256644 44	1910590 00	14762 3000	0.63990 2	1	0	2	0.693147	249342. 8	0.0097 15
13	KQ	2017	1496469035	5.85	875434 4	1913520 00	15568 5000	0.57661 4	1	0	1	0	0	0
13	KQ	2016	1496469035	4.9	733269 8	1888390 00	18206 3000	0.52890 4	1	0	13	2.564949	0	0
14	Safaricom	2020	40065428000	31.5	1.26E+ 09	4812900 0	17251 7000	5.93797 3	1	0	2	0.693147	0	0
14	Safaricom	2019	40065428000	22.2	8.89E+ 08	4352500 0	16743 9000	4.42244 9	1	0	1	0	2781066	0.0031 27
14	Safaricom	2018	40065428000	26.75	1.07E+ 09	5420100 0	16168 6996	5.21544 1	1	1	10	2.302585	3.22E+0 8	0.3008 01
14	Safaricom	2017	40065428000	19.15	7.67E+ 08	4244353 8	15918 2485	4.01583 3	1	1	9	2.197225	5825649	0.0075 93
14	Safaricom	2016	40065428000	16.3	6.53E+ 08	5268109 5	15695 7626	3.36649 4	1	1	8	2.079442	7731595	0.0118 39

15	Sameer	2020	278342393	3.4	946364 .1	1461736	15308 47	0.80469	0	1	16	2.772589	1892.51 7	0.002
15	Sameer	2019	278342393	1.85	514933 .4	1458246	25878 24	0.48767 8	0	1	15	2.70805	627.739 1	0.0012 19
15	Sameer	2018	278342393	2.8	779358 .7	1132014	29698 68	0.46597 5	0	1	14	2.639057	71470.7 7	0.0917 05
15	Sameer	2017	278342393	2.8	779358 .7	1455673	32908 67	0.47087 6	0	1	13	2.564949	70863.4 6	0.0909 25
15	Sameer	2016	278342393	3.75	104378 4	1258778	37512 25	0.45959 3	0	1	12	2.484907	93036.0 5	0.0891 33
16	Sasini	2020	228055500	16.9	385413 8	1789303	14674 359	0.34278 2	1	0	7	1.94591	269083. 5	0.0698 17
16	Sasini	2019	228055500	19.9	453830 4	1637597	12961 380	0.42303 7	1	1	6	1.791759	278190	0.0612 98
16	Sasini	2018	228055500	29.5	672763 7	1880148	13196 025	0.57095 3	1	1	4	1.386294	728050	0.1082 18
16	Sasini	2017	228055500	19.2	437866 6	1744534	16818 463	0.32986 1	1	1	3	1.098612	503903	0.1150 81
16	Sasini	2016	228055500	19.55	445848 5	1451213	16044 527	0.33777 9	1	1	2	0.693147	381950. 3	0.0856 68
17	Standard Group	2020	81731808	27.55	225171 1	2774736	41959 46	0.72108 4	1	1	8	2.079442	315364. 1	0.1400 55
17	Standard Group	2019	81731808	29.5	241108 8	2721817	46761 33	0.69382 8	1	1	7	1.94591	382396. 2	0.1585 99
17	Standard Group	2018	81731808	37	302407 7	2595381	44596 37	0.79651 9	1	1	6	1.791759	171109. 9	0.0565 83
17	Standard Group	2017	81731808	16.5	134857 5	2328837	44049 31	0.54611 5	1	1	4	1.386294	40833.1 6	0.0302 79
17	Standard Group	2016	81731808	28	228849 1	2478041	43556 14	0.69750 8	1	1	3	1.098612	80625.8 8	0.0352 31
18	Total Kenya	2020	629542458	27.5	173124 18	1318253 4	37564 704	0.60091 8	1	0	5	1.609438	682458. 7	0.0394 2
18	Total Kenya	2019	629542458	27.5	173124 18	1659287 8	39258 921	0.60705 8	1	0	4	1.386294	629583. 1	0.0363 66

18	Total Kenya	2018	629542458	23.5	147942 48	1659489 6	38012 115	0.57481 9	1	0	3	1.098612	5014774	0.3389 68
18	Total Kenya	2017	629542458	17	107022 22	1683608 2	36185 372	0.51938	1	0	2	0.693147	2578890	0.2409 68
18	Total Kenya	2016	629542458	18.25	114891 50	1662528 9	34225 035	0.55288 6	1	0	1	0	2259733	0.1966 84
19	TransCentury	2020	375202766	2.5	938006 .9	2115904 5.52	14824 651	0.61408 5	1	0	6	1.791759	220080. 5	0.2346 26
19	TransCentury	2019	375202766	2.95	110684 8	1997276 7	16668 181	0.57530 2	1	0	5	1.609438	255034. 8	0.2304 15
19	TransCentury	2018	375202766	6	225121 7	1885299 7	18740 964	0.56137 2	1	0	4	1.386294	300368. 7	0.1334 25
19	TransCentury	2017	281426593	6.8	191370 1	1508168 6	18911 552	0.49996 4	1	0	3	1.098612	147323. 1	0.0769 83
19	TransCentury	2016	280284476	8.25	231234 7	1827221 1	18911 552	0.55359	1	0	2	0.693147	255657	0.1105 62
20	Uchumi	2020	364959616	0.29	105838 .3	9120958 .85	32383 24.8	0.74654 8	1	0	3	1.098612	13256.2 9	0.1252 5
20	Uchumi	2019	364959616	0.8	291967 .7	8390183 .934	37434 13.1	0.71554 6	1	0	2	0.693147	24949.1 1	0.0854 52
20	Uchumi	2018	364959616	4.6	167881 4	7717959	43272 81	0.78012 3	1	0	1	0	195221. 9	0.1162 86
20	Uchumi	2017	364959616	3.95	144159 0	7099593	50022 16	0.70577 7	1	0	6	1.791759	168623. 7	0.1169 71
20	Uchumi	2016	364959616	10.95	399630 8	5673641	64129 96	0.80005 3	1	0	5	1.609438	239678. 7	0.0599 75
21	Unga Group	2020	75708873	34	257410 2	4590656	10646 066	0.47023	1	1	17	2.833213	6896.14 7	0.0026 79
21	Unga Group	2019	75708873	34.42 8	260650 5	4323589	99326 64	0.48610 9	1	1	16	2.772589	5963.48 9	0.0022 88
21	Unga Group	2018	75708873	42.20 248	319510 2	4788516	94553 16	0.56049 7	1	1	15	2.70805	3989.25 2	0.0012 49
21	Unga Group	2017	75708873	31.36 429	237455 5	3503054	83515 59	0.49580 8	1	1	14	2.639057	28408.5 5	0.0119 64

21	Unga Group	2016	75706986	15.99 677	121106 8	3316509	86717 88	0.37766 6	1	1	13	2.564949	3984.54 9	0.0032 9
22	Nation Media	2020	188542286	39.5	744742 0	4299200	11284 700	0.75376 6	1	1	4	1.386294	0	0
22	Nation Media	2019	188542286	68.5	129151 47	3320400	11198 000	1.11827 4	1	1	3	1.098612	0	0
22	Nation Media	2018	188542286	116	218709 05	3146600	11320 300	1.72929 3	1	1	2	0.693147	2606.21	0.0001 19
22	Nation Media	2017	188542286	93	175344 33	3471200	12174 100	1.34261 6	1	1	1	0	0	0
22	Nation Media	2016	188542286	191	360115 77	3743000	12696 700	2.41820 6	1	0	7	1.94591	1540785 7	0.4278 58
23	BOC Kenya	2020	19525446	58	113247 6	553249	19926 37	0.66213 7	1	1	9	2.197225	537429. 8	0.4745 62
23	BOC Kenya	2019	19525446	92.99 8	181582 7	622750	21417 47	0.88210 5	1	1	8	2.079442	890507. 1	0.4904 14
23	BOC Kenya	2018	19525446	126.6 074	247206 7	617322	22286 69	1.08552 3	1	1	7	1.94591	1074828	0.4347 89
23	BOC Kenya	2017	19525446	145.4 206	283940 3	526118	22238 38	1.22384 5	1	1	6	1.791759	1215498	0.4280 82
23	BOC Kenya	2016	19525446	113.4 819	221578 4	606850	23209 56	0.96407 8	1	1	5	1.609438	176218. 9	0.0795 29
24	EABL	2020	790774356	155	1.23E+ 08	7091049 5	87065 000	1.22475	1	1	1	0	1030681 7	0.0840 89
24	EABL	2019	790774356	272.0 078	2.15E+ 08	5959479 0	71246 826	2.09942 1	1	1	8	2.079442	1823913 4	0.0847 95
24	EABL	2018	790774356	297.5 785	2.35E+ 08	5467814 2	66667 000	2.38984 1	1	1	7	1.94591	2518618 5	0.1070 31
24	EABL	2017	790774356	283.5 675	2.24E+ 08	5481636 2	61747 000	2.39401 3	1	1	6	1.791759	3842827 6	0.1713 73
24	EABL	2016	790774356	318.3 952	2.52E+ 08	5313349 8	66940 000	2.53938	1	1	5	1.609438	3831786 4	0.1521 89
25	Eaagads Ltd	2020	32160000	10.1	324816	95406	94232 4	0.40494 3	1	1	8	2.079442	48961.5 7	0.1507 36

25	Eaagads Ltd	2019	32160000	14.5	466320	89730	90589 5	0.55849 3	1	1	7	1.94591	81892.7 8	0.1756 15
25	Eaagads Ltd	2018	32160000	22.75	731640	84391.6 8291	92280 2	0.81020 3	1	1	6	1.791759	131126. 6	0.1792 23
25	Eaagads Ltd	2017	32160000	22.75	731640	79370.9 5893	76116 5	0.96487 4	1	1	5	1.609438	145243. 9	0.1985 18
25	Eaagads Ltd	2016	32160000	26.75	860280	74648.9 3345	42993 4	1.85287 5	1	1	4	1.386294	157456. 3	0.1830 29
26	Williamson Tea	2020	17512640	139.5	244301 3	1954543	82719 18	0.43001 7	1	1	9	2.197225	433654. 4	0.1775 08
26	Williamson Tea	2019	17512640	150	262689 6	2657717	95050 74	0.43449	1	1	8	2.079442	500769. 3	0.1906 32
26	Williamson Tea	2018	17512640	159	278451 0	2269855	83641 27	0.47530 3	1	1	7	1.94591	545419. 8	0.1958 76
26	Williamson Tea	2017	17512640	178	311725 0	2217058	89313 95	0.47848	1	1	6	1.791759	693345	0.2224 22
26	Williamson Tea	2016	8756320	192	168121 3	1975522	85585 58	0.34713 4	1	1	5	1.609438	178151. 4	0.1059 66
27	Kapchorua Tea	2020	7824000	80	625920	565459	20331 73	0.45846 4	1	1	6	1.791759	69016.7 5	0.1102 64
27	Kapchorua Tea	2019	7824000	75	586800	817424	24890 43	0.42469	1	1	5	1.609438	77920.7 8	0.1327 89
27	Kapchorua Tea	2018	7824000	65.5	512472	614809	20303 09	0.42617 4	1	1	4	1.386294	88188.4 1	0.1720 84
27	Kapchorua Tea	2017	7824000	80	625920	630371	21445 87	0.45272 4	1	1	3	1.098612	111139. 1	0.1775 61
27	Kapchorua Tea	2016	3912000	200	782400	555560	19832 39	0.52700 5	1	1	2	0.693147	648992. 8	0.8294 9
28	Limuru Tea	2020	2400000	450	108000 0	41644	29605 5	3.32143 1	1	1	6	1.791759	113012. 3	0.1046 41
28	Limuru Tea	2019	2400000	500	120000 0	75129	26825 5	3.71342	1	1	5	1.609438	848008. 1	0.7066 73
28	Limuru Tea	2018	2400000	500	120000 0	74231	26200 9	3.78964 7	1	1	4	1.386294	763984. 8	0.6366 54

28	Limuru Tea	2017	2400000	530	127200 0	76481	28219 3	3.75962 9	1	1	3	1.098612	648247	0.5096 28
28	Limuru Tea	2016	2400000	883	211920 0	83900	31376 8	5.54004 8	1	1	2	0.693147	694848. 5	0.3278 82
31	Express	2020	35403790	6.84	242161 .9	442016	47173 7	0.74875 6	1	0	9	2.197225	49338.5 7	0.2037 42
31	Express	2019	35403790	5	177019	457801	32094 2	0.81518 5	1	0	8	2.079442	59409.9	0.3356 13
31	Express	2018	35403790	3.75	132764 .2	427101. 868	37503 2.45	0.69797	1	0	7	1.94591	41956.6 9	0.3160 24
31	Express	2017	35403790	3.55	125683 .5	356395. 521	37957 5.82	0.65502 4	1	0	6	1.791759	30961.3 3	0.2463 44
31	Express	2016	35403790	4.5	159317 .1	321778. 789	44189 7.93	0.62997 3	1	0	5	1.609438	3179.01 9	0.0199 54
33	TPS	2020	182174108	17.55	319715 6	8785220	17986 459	0.44757 7	1	1	7	1.94591	111944. 3	0.0350 14
33	TPS	2019	182174108	23	419000 4	8460549	17598 123	0.48546 4	1	1	6	1.791759	1790.63 8	0.0004 27
33	TPS	2018	182174108	32.5	592065 9	8322206	17486 823	0.55185 6	1	1	5	1.609438	2046.66 3	0.0003 46
33	TPS	2017	182174108	20.5	373456 9	7417494	16983 115	0.45704	1	1	4	1.386294	55637.7 9	0.0148 98
33	TPS	2016	182174108	25	455435 3	6130449	15815 800	0.48686 2	1	1	3	1.098612	2056147	0.4514 69
34	Scan Group	2020	432155985	17.2	743308 3	3510517	12803 173	0.67082 3	0	1	17	2.833213	3179051	0.4276 89
34	Scan Group	2019	432155985	14	605018 4	5935819	14425 198	0.58867 4	0	1	16	2.772589	1344145	0.2221 66
34	Scan Group	2018	378865102	19	719843 7	4793743	13758 912	0.64638 6	0	1	15	2.70805	604016. 8	0.0839 09
34	Scan Group	2017	378865102	18.15	687640 2	4677759	13486 398	0.63609 7	0	1	14	2.639057	522108. 7	0.0759 28
34	Scan Group	2016	378865102	30	113659 53	3864219	12468 479	0.93249 6	0	1	13	2.564949	1004316	0.0883 62

38	Jubilee	2020	72472950	351	254380 05	9955530 8	13007 6938	0.54432	1	0	8	2.079442	3404147	0.1338 21
38	Jubilee	2019	72472950	404.7 5	293334 27	8683443 4	11416 7639	0.57794 4	1	0	7	1.94591	1701651	0.0580 11
38	Jubilee	2018	72472950	499	361640 02	8039240 2	10496 7530	0.62881 1	1	0	6	1.791759	0	0
38	Jubilee	2017	65884500	445.4 5	293482 51	6914607 4	90567 743	0.61669 3	1	0	5	1.609438	4241.80 3	0.0001 45
38	Jubilee	2016	65884500	440	289891 80	6199680 3	82378 010	0.63020 7	1	0	4	1.386294	303482. 5	0.0104 69
39	Pan Africa	2020	144000000	17.2	247680 0	2729758 4	29032 606	0.52856 9	1	1	9	2.197225	117898. 5	0.0476 01
39	Pan Africa	2019	144000000	22	316800 0	2751459 2	29101 630	0.54194	1	1	8	2.079442	0.46179 1	1.46E- 07
39	Pan Africa	2018	144015226	27.75	399642 3	2575953 4	29811 484	0.53545 8	1	1	7	1.94591	1893224	0.4737 3
39	Pan Africa	2017	144000000	27.75	399600 0	2451034 6	28442 590	0.53833 4	1	1	6	1.791759	2004305	0.5015 78
39	Pan Africa	2016	144000000	60	864000 0	2330723 1	27109 278	0.63366 6	1	1	5	1.609438	3395227	0.3929 66
41	Kenya Re	2020	699949068	3.03	212084 6	1841224 5	50362 970	0.29855 4	1	1	8	2.079442	35069.0 3	0.0165 35
41	Kenya Re	2019	699949068	13.95	976428 9	1598960 1	44362 634	0.42672 6	1	1	7	1.94591	11932.5 3	0.0012 22
41	Kenya Re	2018	699949068	18.1	126690 78	1552758 3	42732 667	0.48397 8	1	1	6	1.791759	44024.6 6	0.0034 75
41	Kenya Re	2017	699949068	22.5	157488 54	1436101 3	38494 310	0.56966 6	1	1	5	1.609438	100918	0.0064 08
41	Kenya Re	2016	699949068	21	146989 30	1402126 9	35954 134	0.57468 7	1	1	4	1.386294	89033.3 4	0.0060 57
42	Liberty	2020	535707499	10.35	554457 3	3018896 2	38221 854	0.52233 8	1	1	7	1.94591	472817. 4	0.0852 76
42	Liberty	2019	535707499	12.9	691062 7	2895990 0	36579 039	0.54731 6	1	1	6	1.791759	1219830	0.1765 15

42	Liberty	2018	535707499	12.2	653563 1	2984540 7	37118 566	0.54329 3	1	1	5	1.609438	3304635	0.5056 34
42	Liberty	2017	535707499	13.15	704455 4	2823354 5	34920 271	0.55860 6	1	1	4	1.386294	3562774	0.5057 49
42	Liberty	2016	535707499	19.5	104462 96	2830057 7	34533 689	0.61665 2	1	1	3	1.098612	1418816	0.1358 2
43	Britam	2020	2523486816	9	227113 81	9586673 9	12524 3565	0.53628 5	1	1	35	3.555348	1304317 6	0.5743 01
43	Britam	2019	2523486816	10	252348 68	7970016 2	10365 6332	0.57230 1	1	1	34	3.526361	5660819	0.2243 25
43	Britam	2018	2162603535	13.35	288707 57	7635484 7	99024 857	0.59998 7	1	1	33	3.496508	1671932	0.0579 11
43	Britam	2017	1938415838	10	193841 58	6576501 3	83642 609	0.56991 2	1	1	32	3.465736	6997250	0.3609 78
43	Britam	2016	1938415838	13	251994 06	5995790 4	77632 352	0.61892	1	1	31	3.433987	0	0
44	CIC	2020	2615538528	2.68	700964 3	2745013 7	35303 370	0.54912 9	1	1	2	0.693147	0	0
44	CIC	2019	2615538528	3.6	941593 9	2530835 3	33046 419	0.59505 5	1	1	1	0	0	0
44	CIC	2018	2615538528	5.6	146470 16	2286826 8	30505 376	0.70288	1	1	8	2.079442	0	0
44	CIC	2017	2615538528	3.8	993904 6	1934722 3	26826 686	0.63426	1	1	7	1.94591	0	0
44	CIC	2016	2615538528	6.2	162163 39	1708975 2	24920 235	0.79281 4	1	1	6	1.791759	0	0
45	Olympia	2020	40000000	2.01	80400	343011	16265 99	0.21497 2	1	1	7	1.94591	0	0
45	Olympia	2019	40000000	2.1	84000	357862	16588 83	0.21909 7	1	1	6	1.791759	0	0
45	Olympia	2018	40000000	3.5	140000	357397	16387 96	0.24917 3	1	1	5	1.609438	20489.2 1	0.1463 51
45	Olympia	2017	40000000	2.85	114000	380256	15275 22	0.25907 4	1	1	4	1.386294	2190.05 2	0.0192 11

45	Olympia	2016	40000000	4.8	192000	362852	15314 09	0.29291 2	1	1	3	1.098612	7401.90 6	0.0385 52
46	Centum	2020	665441714	29.5	196305 31	5018783 8	10176 3653	0.45947 8	1	1	15	2.70805	734610. 6	0.0374 22
46	Centum	2019	665441714	29.25	194641 70	4539092 0	96288 084	0.45776 1	1	1	14	2.639057	1505586	0.0773 52
46	Centum	2018	665441714	43.75	291130 75	3891140 4	88385 608	0.53437 6	1	1	13	2.564949	1204561 5	0.4137 53
46	Centum	2017	665441714	37	246213 43	3479528 7	78053 536	0.52651 5	1	1	12	2.484907	1209341 3	0.4911 76
46	Centum	2016	665441714	46.5	309430 40	3378580 7	72340 320	0.60992 4	1	1	11	2.397895	1608101 6	0.5196 97
47	Home Africa	2020	405255320	0.6	243153 .2	6288986 .177	43478 07.9	0.61410 8	1	1	8	2.079442	153321. 9	0.6305 57
47	Home Africa	2019	405255320	0.7	283678 .7	5554832 .493	45024 62	0.58052 5	1	1	7	1.94591	202755	0.7147 35
47	Home Africa	2018	405255320	1.4	567357 .4	4869430 .432	44778 28	0.58164 5	1	1	6	1.791759	34041.4 5	0.06
47	Home Africa	2017	405255320	1.2	486306 .4	4140178 .01	39300 10.8	0.57328 1	1	1	5	1.609438	68082.8 9	0.14
47	Home Africa	2016	405255320	2.6	105366 4	3904024 .563	38623 15.7	0.63835 6	1	1	4	1.386294	495222	0.47
49	NSE	2020	259500791	12.5	324376 0	156201	22424 01	1.41747 6	1	1	8	2.079442	1459692	0.45
49	NSE	2019	259500791	14.55	377573 7	122640	22183 88	1.66524 1	1	1	7	1.94591	2038898	0.54
49	NSE	2018	259500791	19.7	511216 6	96334	21082 20	2.36260 9	1	1	6	1.791759	766824. 8	0.15
49	NSE	2017	259500791	14.65	380168 7	150600	20137 45	1.82608 9	1	1	5	1.609438	456202. 4	0.12
49	NSE	2016	194625000	18.56	361224 0	143478	19182 35	1.82164 9	1	1	4	1.386294	505713. 6	0.14
50	BAT	2020	100000000	500	500000 00	1222115 2	21936 362	1.82159 5	1	0	8	2.079442	7000000	0.14

50	BAT	2019	100000000	824.2 094	824209 40	9029003	18338 257	3.34158 2	1	0	7	1.94591	1236314 1	0.15
50	BAT	2018	100000000	788.1 446	788144 63	1557774 7	17805 588	2.82752 5	1	0	6	1.791759	8669591	0.11
50	BAT	2017	100000000	717.0 159	717015 87	1570221 1	18499 800	2.55551 6	1	0	5	1.609438	2868063	0.04
50	BAT	2016	100000000	556.3 71	556370 97	9137981	18681 184	2.32843 4	1	0	4	1.386294	5563710	0.1
51	MUMIAS	2018	1530000000	1.318 8	201776 4	1259601 0	15735 609	0.51581 1	1	0	2	0.693147	302664. 6	0.15
51	MUMIAS	2017	1530000000	2.092 562	320162 0	1161700 3	24091 095	0.41499 3	1	0	1	0	128064. 8	0.04
51	MUMIAS	2016	1530000000	2.647 024	404994 6	9273959	26801 136	0.36933 8	1	0	4	1.386294	0	0
52	Longhorn Publishers Limited	2020	272440000	6.76	184169 4	1239930	23442 34	0.85978 9	1	0	8	2.079442	0	0
52	Longhorn Publishers Limited	2019	272440000	4.6	125322 4	1367891	24075 29	0.69425 8	1	0	7	1.94591	0	0
52	Longhorn Publishers Limited	2018	272440000	5.4	147117 6	913028	18587 34	0.86017 6	1	0	6	1.791759	0	0
52	Longhorn Publishers Limited	2017	156766000	4.8	752476 .8	919377	18669 44	0.60002 2	1	0	5	1.609438	0	0
52	Longhorn Publishers Limited	2016	102375000	4.26	436117 .5	308942	68932 0	0.74635 7	1	0	4	1.386294	61056.4 5	0.14
53	Deacons (East Africa) PLC	2018	123558228	0.45	55601. 2	1060314 .088	10568 07.5	0.52709 1	1	0	8	2.079442	7784.16 8	0.14
53	Deacons (East Africa) PLC	2017	123558228	3.5	432453 .8	936465	15528 35	0.54992 1	1	0	7	1.94591	69192.6 1	0.16

53	Deacons (East Africa) PLC	2016	123558228	6.05	747527 .3	827082	22816 80	0.50650 7	1	0	6	1.791759	0	0
54	FTG Holdings	2020	253125000	2.72	688500	1224025 .564	22811 67.9	0.54562 6	1	1	9	2.197225	0	0
54	FTG Holdings	2019	253125000	6.063 6	153484 9	1026237 .334	18392 71.8	0.89376 3	1	1	8	2.079442	460454. 6	0.3
54	FTG Holdings	2018	253125000	7.861 364	198990 8	949309. 605	16807 69.8	1.11753 9	1	1	7	1.94591	577073. 2	0.29
54	FTG Holdings	2017	253125000	7.324	185388 8	802027. 963	15211 94.8	1.14320 3	1	1	6	1.791759	741555	0.4
54	FTG Holdings	2016	253125000	7.861 364	198990 8	744609. 386	13265 31.3	1.32029 5	1	1	5	1.609438	397981. 5	0.2
55	Kenya Orchards	2020	90000000	12.5	112500 0	103380. 407	13600 3.75	5.13141 9	1	1	7	1.94591	123750	0.11
55	Kenya Orchards	2019	90000000	14	126000 0	90321.2 86	11456 5.71	6.59056 6	1	1	6	1.791759	176400	0.14
55	Kenya Orchards	2018	90000000	97	873000 0	92864.9 52	10827 8.26	43.8636	1	1	5	1.609438	1396800	0.16
55	Kenya Orchards	2017	90000000	95	855000 0	79507.9 67	89241 .627	51.1379 5	1	1	4	1.386294	1795500	0.21
55	Kenya Orchards	2016	90000000	98	882000 0	72705.6 71	78731 .223	58.7221 9	1	1	3	1.098612	2734200	0.31
56	Barclays Bank	2020	5431536000	13.35	725110 06	3287923 75	37398 1781	0.57102 8	1	1	8	2.079442	3190484 2	0.44
56	Barclays Bank	2019	5431536000	10.95	594753 19	2806327 22	32531 3000	0.56128 5	1	1	7	1.94591	0	0
56	Barclays Bank	2018	5431536000	9.6	521427 46	2811070 00	27157 2000	0.60297 2	1	1	6	1.791759	0	0
56	Barclays Bank	2017	5431536000	9.1	494269 78	2274740 00	25971 8000	0.56836 1	1	1	5	1.609438	0	0
56	Barclays Bank	2016	5431536000	13.6	738688 90	2011610 00	24087 7000	0.62218 6	1	1	4	1.386294	0	0
57	Co-operative	2020	5867180103	16.35	959283	3766795	45700	0.56688	1	1	16	2.772589	0	0

	bank of Kenya				95	09	8946	8						
57	Co-operative bank of Kenya	2019	5867180103	16	93874882	342915495	413670710	0.577317	1	1	15	2.70805	0	0
57	Co-operative bank of Kenya	2018	5867180103	13.2	77446777	315082861	386857657	0.559206	1	1	14	2.639057	0	0
57	Co-operative bank of Kenya	2017	5867180103	13.2	77446777	290450770	351828577	0.5728	1	1	13	2.564949	0	0
57	Co-operative bank of Kenya	2016	5867180103	18	1.06E+08	293196557	342499809	0.627353	1	1	12	2.484907	0	0
58	Diamond Trust Bank	2020	279602220	109	30476642	321714841	386230186	0.497484	1	1	8	2.079442	0	0
58	Diamond Trust Bank	2019	279602220	156.5	43757747	318780065	377719314	0.520514	1	1	7	1.94591	17940676	0.41
58	Diamond Trust Bank	2018	279602220	192	53683626	309683645	363303400	0.539932	1	1	6	1.791759	22547123	0.42
58	Diamond Trust Bank	2017	279602220	118	32993062	282167952	328044501	0.516478	1	1	5	1.609438	16166600	0.49
58	Diamond Trust Bank	2016	279602220	187	52285615	233303209	271608597	0.565621	1	1	4	1.386294	32417081	0.62
59	Equity Bank	2020	3773674802	53.5	2.02E+08	377922215	673682541	0.551361	1	1	31	3.433987	1.01E+08	0.5
59	Equity Bank	2019	3773674802	34.85	1.32E+08	417610867	573384000	0.554113	1	1	30	3.401197	51289901	0.39
59	Equity Bank	2018	3773674802	39.75	1.5E+08	431323000	524465745	0.608217	1	1	29	3.367296	64501537	0.43
59	Equity Bank	2017	3773674802	30	1.13E+08	391737000	473713133	0.58345	1	1	28	3.332205	62265634	0.55
59	Equity Bank	2016	3773674802	40	1.51E+08	355926000	428062514	0.646531	1	1	27	3.295837	89058725	0.59

60	Housing finance Company ltd	2020	384614168	6.46	248460 8	4621269 8	56454 918	0.47432	1	0	8	2.079442	1714379	0.69
60	Housing finance Company ltd	2019	384614168	5.54	213076 2	5021699 5	60549 350	0.47259 6	1	0	7	1.94591	1299765	0.61
60	Housing finance Company ltd	2018	384614168	9.45	363460 4	5609158 1	67541 116	0.48309 4	1	0	6	1.791759	2253454	0.62
60	Housing finance Company ltd	2017	384614168	12.73	489613 8	6064087 8	71930 140	0.49435 4	1	0	5	1.609438	3035606	0.62
60	Housing finance Company ltd	2016	384614168	20.23	778074 5	6103679 3	71659 434	0.51861	1	0	4	1.386294	3812565	0.49
61	I&M Bank	2020	826810738	54	446477 80	2544290 00	27402 7749	0.56594 4	1	1	8	2.079442	2053797 9	0.46
61	I&M Bank	2019	826810738	85	702789 13	2376480 00	24863 9566	0.63322	1	1	7	1.94591	1166630 0	0.166
61	I&M Bank	2018	826810738	127	1.05E+ 08	1930950 00	24011 0741	0.68812 6	1	1	6	1.791759	1543573 0	0.147
61	I&M Bank	2017	826810738	90	744129 66	1710360 00	21054 2393	0.64324 7	1	1	5	1.609438	7887774	0.106
61	I&M Bank	2016	826810738	100	826810 74	1579360 00	19172 3542	0.68814 7	1	1	4	1.386294	5291588 7	0.64
62	KCB Bank	2020	3066063487	54	1.66E+ 08	7849116 22	89857 2213	0.56459 1	1	1	8	2.079442	8278371 4	0.5
62	KCB Bank	2019	3066063487	37.45	1.15E+ 08	6006520 00	71431 2591	0.54410 3	1	1	7	1.94591	0	0
62	KCB Bank	2018	3066063487	42.75	1.31E+ 08	5407030 00	64666 8939	0.56576 8	1	1	6	1.791759	0	0
62	KCB Bank	2017	3066063487	28.75	881493 25	4986740 00	59523 9643	0.53644 4	1	1	5	1.609438	881493. 3	0.01
62	KCB Bank	2016	3066063487	43.75	1.34E+ 08	4768400 00	55809 4154	0.59035 7	1	1	4	1.386294	6707014	0.05

63	National Bank of Kenya	2020	338800000	4.12	1395856	113380481.4	112028747	0.509191	1	1	2	0.693147	181461.3	0.13
63	National Bank of Kenya	2019	338800000	5.32	1802416	107876251	114849105	0.492439	1	1	1	0	36048.32	0.02
63	National Bank of Kenya	2018	338800000	9.35	3167780	102639232	109873140	0.497886	1	1	6	1.791759	0	0
63	National Bank of Kenya	2017	338800000	7.2	2439360	104141653	112086130	0.492911	1	1	5	1.609438	0	0
63	National Bank of Kenya	2016	338800000	15.75	5336100	114386767	125440316	0.499205	1	1	4	1.386294	0	0
64	NIC Plc bank	2019	703940164	27.8	19569537	172622283	208407417	0.504401	1	0	10	2.302585	0	0
64	NIC Plc bank	2018	703940164	30.68	21596884	171456223	206172460	0.511225	1	0	9	2.197225	0	0
64	NIC Plc bank	2017	703940164	23.64	16641145	139113621	169458985	0.504759	1	0	8	2.079442	0	0
64	NIC Plc bank	2016	703940164	39.32	27678927	139442126	165788268	0.547524	1	0	7	1.94591	0	0
65	Stanbic Bank Kenya Ltd	2020	395321638	109.25	43188889	254589827	292705136	0.544092	1	1	9	2.197225	0	0
65	Stanbic Bank Kenya Ltd	2019	395321638	90.75	35875439	246362296	280953012	0.535235	1	1	8	2.079442	0	0
65	Stanbic Bank Kenya Ltd	2018	395321638	81	32021053	206356683	248738719	0.523797	1	1	7	1.94591	5123368	0.16
65	Stanbic Bank Kenya Ltd	2017	395321638	70.5	27870175	174541855	214682729	0.520039	1	1	6	1.791759	5295333	0.19

65	Stanbic Bank Kenya Ltd	2016	395321638	82.5	326140 35	1700870 86	20845 1915	0.53548 3	1	1	5	1.609438	9131930	0.28
66	Standard Chartered Bank	2020	343510572	202.5	695608 91	2543770 00	30213 9056	0.58208 2	1	1	7	1.94591	9042916	0.13
66	Standard Chartered Bank	2019	343510572	194.5	668128 06	2387640 00	28540 4023	0.58297 5	1	1	6	1.791759	1069004 9	0.16
66	Standard Chartered Bank	2018	343510572	208	714501 99	2400590 00	28572 4441	0.59246 7	1	1	5	1.609438	0	0
66	Standard Chartered Bank	2017	343510572	189	649234 98	2058780 00	25048 2000	0.59339 4	1	1	4	1.386294	0	0
66	Standard Chartered Bank	2016	343510572	195	669845 62	1927140 00	23396 5447	0.60865	1	1	3	1.098612	0	0

