

**THE RELATIONSHIP BETWEEN DISCRETIONARY ACCRUALS AND
EARNINGS QUALITY AMONG FIRMS LISTED AT THE NAIROBI SECURITIES
EXCHANGE**

**BY
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DECLARATION

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

Signed... 

Date...20/11/2021

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

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DEDICATION

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ABBREVIATIONS

CMA	Capital Markets Authority of Kenya
EM	Earnings Management
FR	Financial Reporting
FRQ	Financial Reporting Quality
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
ICPAK	Institute of Certified Public Accountants of Kenya
IFRS	International Financial Reporting Standards
NSE	Nairobi Securities Exchange
SMEs	Small and Medium-sizes enterprises

ABSTRACT

One of the most pressing concerns about how the market perceives high earnings quality is the impact of financial reporting quality on a company's subsequent performance. The market favourably judges those firms that have are highly capable of providing quality financial data to shareholders and other stakeholders, having demonstrated that firms with quality financial data have a relatively better worth in the future, aiming for the elimination or avoidance of information asymmetries among market participants. The overall objective of the study was to establish the impact of discretionary accruals on the earnings quality of Nairobi Securities Exchange-listed companies. 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 discretionary accruals on earnings quality. The agency, stakeholder, and signalling 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 analyzed 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 discretionary accruals and earnings quality. The study findings were that total accruals ($R=0.0081$; $p=0.8929>0.05$), deferred tax expense ($R=0.0235$; $p=0.6946>0.05$), Modified Jones dis. accruals ($R=-0.0112$; $p=0.8512>0.05$), Fwd-Look Dis. accruals ($R=0.0062$; $p=0.9170>0.05$), and firm size ($R=0.0638$; $p=0.2855>0.05$) do not have a significant correlation with firm value. Further study findings established that the model entailing; total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size explains earnings quality to a very least extent with a coefficient of determination value of 0.45%. Additional study findings were that the model consisting of total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size significantly predicts earnings quality ($\text{Prob}>\chi^2=0.0000<0.05$). Final study findings were that total accruals ($p=0.319>0.05$), deferred tax expense ($p=0.962>0.05$), Modified Jones dis. accruals ($p=0.532>0.05$), Fwd-Look Dis. accruals ($p=0.868>0.05$), and firm size ($p=0.475>0.05$) 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, to focus on discretionary accruals when endeavouring to boost firm earnings quality in order to spur the development of capital markets. CMA as well as NSE should boost their surveillance and monitoring of listed firms to stem discretionary accruals which will in turn boost the firms' earnings quality, and ultimately their value. Recommendations are also generated to the financial analysts to estimate market capitalization, and by extension, securities value, by gauging the extent to which firms employ discretionary accruals. The earnings quality of firms that rampantly utilize discretionary accruals will most likely to be poor. Finally, recommendations are made to consultants and listed firms practitioners should focus on discretionary accruals to time strategies like securities exchange listings, rights issues, and dividend pay-outs. Less use of discretionary accruals will signal earnings quality which will rave up demand of the firms' security instrument offerings.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Market agent's attention has been drawn to quality of Financial Reporting (FR) and their primary sources of knowledge of company strategy as a result of the business and markets globalization, expansion and the increased need for transparency and information by the shareholders, community among other stakeholders (Claessens & Fan, 2002). According to Jonas and Blanchet (2000), FR is not just the ultimate output; its quality relies upon all the part, inclusive of the company's dealings disclosure, choosing, and implementation of accounting procedures and understanding of the decisions arrived at. The financial information that market participants see as an essential resource for organizational challenges lowers information asymmetry among investors, management, regulators, and other beneficiaries. As a result, one of the most pressing concerns about how the market perceives high earnings quality is the impact of FR quality on a company's subsequent performance. The market favourably judges those firms that have are highly capable of providing quality financial data to shareholders and other stakeholders, having demonstrated that firms with quality financial data have a relatively better worth in the future, aiming for the elimination or avoidance of information asymmetries among market participants (Bushman & Smith, 2001; Bens et al., 2002; Gunny, 2005; García-Lara et al., 2010; Ahmed & Duellmand, 2011).

The Agency theory, first proposed by Alchian and Demsetz (1972) and later advanced by Jensen and Meckling (1976) was the main anchoring theory of the current research. Its base in economic theory defines it as a contractual connection involving two parties, the principal and the agent, that results in an agent working on behalf of the principal. The other theory that anchored the current study was the stakeholder theory empirically developed by Freeman (1984). The theory focuses on how executives attempt to maximize stakeholders' value and

their contractual obligations to the owners of firm. The theory also recognizes the groups who are the stakeholders of the company by describing and recommending the approaches through which executives can extend the deserved honour to the benefit of those groups. The final theory guiding the current study was the signalling theory proposed by Ross (1977). The theory explains behaviour where there is provision of information between two parties such as individuals and organizations. It involves business ventures communicating to potential investors based on value and commitment signal, which reflects the value of the firm.

According to Mutai (2014), the International Financial Reporting Standards (IFRS) businesses' adoption listed in Nairobi Securities Exchange (NSE) assisted at reducing barriers to trading across borders of securities through making sure that the company accounts are easily reliable, transparent, and comparable. Therefore, the company reduces the cost of raising capital and also enhances the growth and become more competitive. Although, the response to IFRS globally and locally has been commendable, it is faced by myriad of challenges mostly for small and medium sized enterprises where the administrative cost of preparing and auditing individual company accounts increases. IFRS also requires listed companies to disclose their financial reports, which are causing a disadvantage as compared to companies that do not follow strict rules competitively.

1.1.1 Discretionary Accruals

Accounting adjustments known as discretionary accruals are used to illustrate the differences between accrual principles and cash accounting principles (Walker, 2013). When estimated non-discretionary accruals are subtracted from total accruals, they are the unobserved portion of total accruals left. They are a part of total accruals, which are not directly noticeable and are easy for the corporation to manipulate (Kuo et al., 2014).

Accruals serve as a standard for determining the quality of earnings. These are produced by both the application of stringent accounting regulations and the application of professional judgment; alternatives in accounting treatment selection. The discretionary accruals dimension, as a result of the accounting option, is largely related with managers' opportunistic and manipulative behaviour (Kuo et al., 2014) in order to size the outcomes according to their own objectives (Abernathy et al., 2014). However, discretionary accruals is a tool that, when used ethically, can assist raise the firm's value (Omar et al., 2014), with managers selecting the most favourable accounting procedures and reporting methodologies, and therefore influencing how economic events are reflected in performance metrics (Walker, 2013).

Two methods can be used to estimate the size of the accruals. Total accruals are defined as the difference between net income and operating cash flow. The second method of estimation recognizes total accruals by involving some financial statement structures (Pelucio-Grecco et al., 2014). The aspects of discretionary accruals that were analyzed in the current study were; total accruals, In deferred tax expense, Modified Jones dis. Accruals, and the Fwd-Look Dis. Accruals. The variation amongst earnings before extraordinary and discontinued items and cash flow from operations is referred to as total accruals. Modified Jones Dis. Accruals refers to the difference between Total Accruals and modified Jones normal accruals. Total Accruals_{it} = $\alpha + \beta_1(\Delta Sales_{it} - \Delta REC_{it}) + \beta_2 PPE_{it}$, is a modified Jones model normal accrual formula. The variation amongst Total Accruals and forward-looking normal accruals is known as Fwd-Look Dis. Accruals. Total Accruals_{it} = $\alpha + \beta_1((1+k)\Delta Sales_{it} - \Delta REC_{it}) + \beta_2 PPE_{it} + \beta_3 Total Accruals_{it-1} + \beta_4 Sales_{t+1}$, this is the formula used to approximate forward -looking model accruals.

1.1.2 Earnings Quality

The capacity of reported profits to show the company's genuine earnings, as well as the utility of reported profits in predicting future earnings, is referred to as earnings quality. Earnings quality also indicates the stability, consistency, and perseverance in reported earnings (Jodi, Giacomino, and Akers, 2005). Lower earnings quality in private companies could indicate that standards of accounting or auditing have been violated, the necessity for tighter financial reporting regulations, or that their financial reporting procedures are sub-optimal (Ball, Kothari & Robin, 2000; Ball, Robin & Wu, 2000).

The main objective of managing organizational resources is to achieve the goal of maximising shareholder wealth. Shareholder wealth, which is the same as firm value, considers all of a company's prospective rewards, whether it's for a short or lengthy period of time. The term "market value" can be used to describe the success of public trading companies because it requires data on current shares market values. This eliminates the difficulty of estimating the time gap between installation and increased productivity or profit. Earnings quality is often regarded as the investment manager's best defence against low quality financial reporting. However, when precise financial statement information is provided, the market does not completely impound information about earnings quality (Gradient, 2005).

Researchers have used a variety of earnings quality indicators. These metrics, according to Lyimo (2014), pertain to accrual quality, consistency, predictability, and evenness of earnings, as well as earnings surprise. The disparity between reported net earnings and the firm's operating cash flows is reflected in accrual quality. A huge discrepancy suggests that the returns are of poor quality (Anaekenwa & Rafiu, 2018). By dividing operational cash by operating profit, Mano (2018) calculated accrual quality. Due to the difficulties in manipulating cash

flows, a ratio closer to one suggests stronger earnings quality. The capacity of a corporation to sustain its declared earnings over time is measured by earnings persistence. Persistent earnings are long-term and thus of higher quality, whereas transient earnings are short-term and of lesser quality (Francis, Lafond, Olsson & Schipper, 2004). Persistence is measured using first order time series regression of earnings. The gradient of the regression shows the earnings persistence, with a gradient coefficient close to zero suggesting lower earnings persistence (Lyimo, 2014). If reported earnings are a good predictor of future earnings, they are of higher quality; if they are a bad predictor of future earnings, they are of low quality (Penman & Zhang, 2002).

Aguguom and Rafiu (2018) used the standard error of the residuals in a time series regression of earnings to determine predictability. A greater standard error means poor earnings quality, while a lower standard error means better earnings quality. Abdelghany (2005) used a ratio of operating assets to total sales to assess earnings quality. A high ratio indicates poor earnings quality, while a low ratio indicates good earnings quality. For investors, a market information-based method to assessing profits quality can result in effective investing and trading strategies. Earnings quality was determined in the current study by dividing a firm's net income in year t by the market stock prices by the end of the year.

1.1.3 Discretionary Accruals and Earnings Quality

As per García-Lara et al. (2010) quality FR improves the value of an organization based on transparency, reduces cost of preparation, makes investment decision efficient, reduces capital cost, enhances comparability, eliminates the need for further data, expand the financial statement disclosure and enhances reliability, relevance, understandability, measurement and recognition.

Ahmed & Duellmand (2011) opine that the decision of the manager coupled with his discretionary behaviour influences the corporate value via the strategic management process. Therefore, it is important to have knowledge about the corporate strategy, accounting policies and the behaviour, actions and decisions of the manager among others so as to identify and pinpoint the causes of the performance of the company.

Lambert et al. (2007) in their study discovered that the accuracy of accounting information has the ability of influencing the cost of capital in both direct and indirect ways through affecting the perception of the market players regarding future cash flow dispersion and directly by influencing the actual decision, which can change the projected cash flow distribution. Chen et al. (2011) discovered that in private businesses, FRQ influences their investment efficiency in upcoming markets and the influence improves bank finances and reduces incentives to reduce earnings for the purposes of tax avoidance.

Duarte, Irina, and Azevedo (2015) reviewed the nexus between firm value and FRQ. Through Meta-analysis, results of study revealed that FRQ does not only enhance performance, but it also minimizes level of information asymmetry. Even though there is need for FRQ, it is limited in its relevance since despite addressing institutional related issues it falls short handling both real and economic rationally based issues which cannot be left to accounting principles only.

Naghshbandi and Ombati (2014) looked into the concerns and obstacles that FRQ faces in Kenya. They claimed that low levels of ability and competence in least developed economies, the perception that developing countries are European or politically moderated, the adoption of these strategies was hampered by differing levels of compliance and regulatory rules, cultural and structural variances, and the ownership arrangements of various corporate

businesses. Although these barriers may stymie IFRS adoption, the expected benefits of voluntary and mandated disclosure lead to a greater level of acceptability.

King'wara (2015) carried out another Kenyan perspective on the effect of FRQ on value. In the study, a selection of publicly traded companies from 1994 to 2003 was drawn in exclusion of both banking and insurance companies. The outcomes of a comparison analysis conducted before and after the implementation of IFRS demonstrated that FRQ had a substantial impact on value. However, firms listed in the banking and insurance sector were excluded.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) was founded in 1954 as a non-profit organization by stockbrokers with the goal of regulating trading and growing the securities industry. It has expanded to become one of Africa's most prominent exchanges, it now serves as an iconic trading facility for both local and foreign investors interested in contributing to Kenya's and Africa's economic progress. NSE constitutes sixty-four (64) public trading firms, an Income Real Estate Investment Trust (I-REIT), an Exchange Traded Fund (ETF), and a futures derivatives market, and it concerns with both variable and fixed income assets (CMA, 2016).

The Kenyan economy benefits from the exchange because it encourages savings and investments while also helping both local and overseas' enterprises in getting low-cost capital. The Kenyan Capital Markets Authority oversees the NSE (CMA). The East African Securities Exchanges Association (EASEA) and the African Securities Exchange Association are both founding members. It is a member of the World Federation of Exchange (ASEA). It is also a member of the Association of projected stock Markets and a partner exchange in the UN-led feasible Stock Exchanges Initiative (SSE) (Mutai, 2014). Since the NSE began operating

regulated stock markets in the 1950s, there has been remarkable expansion in the stock market throughout the years, both in terms of the services and products available as well as the number of listed corporations on the exchange, with over sixty corporations currently listed (CMA, 2016).

The registered Institute of Certified Public Accountants of Kenya (ICPAK) introduced the FR standards in 1998. This standard was to be operational for all financial statements periods beginning 1st January 1999. Kenya national accounting standard includes both the full IFRS and the IFRS for Small and Medium Enterprises (SMEs). Different governmental regulatory bodies such as Central Bank of Kenya (CBK) issues regulations that have incorporated the requirements on how to use IFRS. Other institutions issuing similar regulations includes; Insurance regulatory Authority of Kenya (IRA), Retirement Benefits Authority (RBA) and the CMA. Moreover, the NSE, on publication of company's rules, uses these accounting standards (Hoti & Nuhiu, 2011).

In Kenya, the adoption of the International Financial Reporting Standards (IFRS) was done in stages. The International Accounting Standards Committee (IASC) issued 41 accounting standards in between 1973 and 2000. IASC was superseded by the International Accounting Standards Board (IASB) at the end of the period. The new board's goal was to improve and filter accounting standards during an eight-year period, from 2000 to 2008, when there was a considerable drop of accounting standards from 41 to 28 at the end of 2008. In accordance with the IASB's accounting framework, these rules are primarily oriented toward providing trustworthy, relevant, as well as timely information to business creditors and investors. The adoption of International Financial Reporting Standards (IFRS) is a requirement for companies listed on the NSE. Other than listed companies there is a set of other specific IFRS designed

for SMEs. These developments are compounded by an absence of literature on the implications of the IFRS, which have been mandated for use in reporting by publicly traded corporations (Mutai, 2014). As a result, the goal of this research was to see if there was any evidence to show that there is accuracy of financial reports is improving, and if so, how this affects business value.

1.2 Research Problem

As the agency theory, by Jensen and Meckling (1976) posits, the principle (shareholders) and agents (managers) do have different kind of information. Managers are in charge of running the daily affairs of the investment made by the shareholders in expectation of pay while on other hand shareholder provide finance and expected return on their investment. In pursuit of these goals, conflict of interest may arise and since managers possess more information about the company they are at advantage (Tarus & Omandi, 2013). Lack of full disclosure on the activities of the company has left shareholder at risk of manipulated earnings as recently witnessed in with rising cases of scandals, frauds, suspension, and even delisting (Tarus & Omandi, 2013). Investors require useful information to make informed decisions. In most cases, the investors rely on figures and estimates in making decision about whether to invest in a company resulting in rational allocation of their funds (Lambert et al., 2007). This information is found in financial statements, which this study seeks to focus much on with respect to how reporting quality influences the value of enterprises listed at the NSE.

Financial reports are of importance to an organization since it gives the projection of how the company will perform; a positive financials report provides confidence to investors hence this influence moments of share price upwards, while a firm under financial distress will influence its share price to a downward trend hence resulting to low returns to investors (Lambert et al.,

2007). In Kenya, there has been criticism expressed about the listed corporations' governance, as these corporations have been accused of mismanagement, corruption, government bailouts, and supporting collapsing enterprises such as Uchumi, Mumias Sugar, and Kenya Airways. The companies have experienced fraud and other cases associated with corruption among others, which has found them in the media lime light for the bad reasons. This can be associated to the non-disclosure or maybe inadequate disclosure of the firm's performance, in summary, not adhering to FR standards. Most of the efforts towards reviving of these collapsing firms to regain their profitability have concentrated of the financial restructuring. Though, practitioners and managers continue to lack appropriate guidance for attainment of optimal financing decisions (Kibet, 2015). As a result of this situation, investors' trust in the stock market has eroded, as has their wealth. Quality FR still is yet to be addressed resulting to collapsing again of companies such as Mumias Sugar, Kenya Airways, Uchumi, National bank and Eveready (KNBS, 2017).

Ferrero (2014) investigated the impact of quality FR on business value globally. The market to book ratio was used to gauge company value, whereas earnings quality, conservatism, and accruals quality were utilized to gauge quality reporting. The study used a panel research approach and looked at a sample of 1960 non-financial listed companies from 25 countries from 2002 to 2008. Regression study using Generalized Methods Moments (GMM) revealed a substantial positive connection between FRQ and business value. Because it utilizes a different measure for company value, this study has a conceptual gap. Morris, Susilowati and Gray (2012) conducted an Asian comparative analysis on the case for and against quality FR and firm value. A simple random selection method was utilized to select 262 organizations from eight Asian nations. Amongst those selected some countries had adopted quality FR while the rest had not. Secondary data was collected through use of a customised 441 items checklist for

quality FR. The study was carried out in the periods 2002 to 2007. Results of the study revealed that quality FR improved performance, which did not only differ with time but also varied across the countries under investigation. These studies present a contextual gap since they were not carried out in the Kenyan context. This study also presents a conceptual gap because they used variables varying from the ones employed in the current study.

Locally, Naghshbandi and Ombati (2014) looked into the concerns and obstacles that FRQ faces in Kenya. They asserted that in developing countries, there is a shortage of talent and competence, opinions from European or politically mitigated developing countries, varied levels of compliance and regulatory regimes, cultural and structural variations, and diverse business enterprise ownership structures have all impeded their implementation. Although these obstacles may hinder the adoption of IFRS, the projected interest in terms of voluntary and mandated disclosure lead to greater levels of acceptance. This study has a conceptual flaw because it attempted to identify the obstacles that FR faces while ignoring the effect of quality FR on the company value. The influence of FRQ on value was explored by King'wara (2015). The study used a sample of publicly traded corporations from 1994 to 2003, excluding banks and insurance industries. The outcomes of a comparison analysis conducted before and after the implementation of IFRS demonstrated that FRQ had a substantial impact on value. Companies in the banking and insurance sectors, on the other hand, were not included. These studies include a contextual gap since not all business registered at the NSE were utilized as the study's population, hence the results may differ if the excluded sectors are added.

The studies reviewed did not try to directly link discretionary accruals and earnings quality. This presents a conceptual gap, which the current research is endeavouring to fill. The researches done in association to the relationship between FRQ and firm value focuses have utilized different variables to the variables to be used in the current study. Also, majority of the

studies have utilized qualitative measures while the current study utilized quantitative measures. This demonstrates a conceptual gap that the current research endeavoured to fill. Accordingly, there was a need for a study that utilizes quantitative discretionary accruals and earnings quality measures. This presents a conceptual gap, which the current study was endeavouring to fill. As a result, the goal of this study was to fill in the conceptual knowledge study gaps and answer the research question: What impact do discretionary accruals have on the earnings quality of enterprises listed on the Nairobi Securities Exchange?

1.3 Research Objective

To find out the impact of discretionary accruals on the earnings quality of Nairobi Securities Exchange-listed companies.

1.4 Value of the Study

Many stakeholders will reap the benefits of this research, including academics, Researchers, government and its agencies, publicly traded company executives, politicians, stock market officials, and others are all involved. Furthermore, this research will contribute to the current knowledge body and aid in projecting business value using FRQ. Furthermore, other scholars may utilize this study as a reference in the future. The research will also help to broaden the scope and improve the accuracy of the study and publications. The research results will assist in expanding the knowledge base on the study's parameters.

The research will be extremely useful in policy formulation. The financial markets regulator, the CMA, will find the study interesting since it will find out the connection between FRQ and company value and provide a clear view into how to improve the performance of publicly traded companies. The CMA can put in place policy drafts and guidelines aiming to boost

capital markets. With the helpful insight by this study, such policy drafts and guidelines will be of 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, financial analyst usually carries out in house research studies; with the assistance of the study findings, those kinds of researches will be improved. They would be able to estimate firm value by using FRQ. Thus, they will consider FRQ 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 FR in order to boost the value of the respective companies they are managing.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theoretical review, financial quality determinants, empirical review, literature review summary, and conceptual framework.

2.2 Theoretical Review

The effect of discretionary accruals on the profits quality of the listed enterprises is stressed by different theoretical views as discussed below. The agency theory, stakeholder theory, and signalling theory provided the in-depth understanding about the theoretical framework of agent and principal relationship.

2.2.1 Agency Theory

The theory was initially explored by Alchian and Demsetz (1972) and advanced by Jensen and Meckling (1976). Its foundation in economic theory defines it as the contractual relationship between two parties being the principal and agent creating the situation where an agent works on behalf of a principal. The absolute responsibility of running and managing the organisation as per the set standards falls directly on the chief executives (Mitnick, 2013). Jensen and Meckling (1976) provide the formal analysis about the agency problem and refers to the agency relationship as a contractual agreement where one of the party is the principal legitimately contracts with another party who is the agency to execute and deliver some professional services on his/her behalf by delegating the authority to make decisions to the senior managers. In real life situation, shareholders of listed companies always delegate the power and authority to make decisions to the board of directors, who then passes the same powers and authority to the CEO.

Jensen and Meckling (1976) stress that when two parties to an agency relationship are maximising the value, there must be any ground to hold that the chief executives would fail to perform their contractual obligations to the best interests of the shareholders. The shareholders can mitigate these conflicts of interests by scheming the appropriate executive remunerations for the agents in order to reduce the unethical and harmful activities of the agents. Furthermore, in some cases, it may be beneficial for the agents to spend financial resources to ensure that they do not make any judgments that would be detrimental to the principals, or to ensure that the principals are reimbursed if the agents do take such destructive activities. However, it is often hard for the owners or executive staff to guarantee that management would make the best judgments for the shareholders at no cost. Moldoveanu and Martin (2001) further point out that agency problems can manifest in two ways: management competence failure and managerial integrity failure. In one hand, failure of managerial competence means to unwise errors committed in carrying out the managerial obligations. This emanates from disadvantageous selections in a situation where the principals would not assure if the agents accurately represent their managerial capacity to do the work that they are contractually hired and compensated for. Failure of management integrity, on the other hand, refers to agents' desired activity that lowers the worth of a company's assets. Moral costs, which reflect the traditional motivation dilemma, cause this issue.

The theory links to this study because financial reporting aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent, and comparable. Thus, discretionary accruals are minimized. Therefore, the company reduces the cost of raising capital and also improves the growth and become more competitive. This will in turn boost the firm earning quality.

2.2.2 Stakeholder Theory

Freeman (1984) empirically developed this stakeholder theory. This theory focuses on how executives attempt to maximize stakeholders' value and their contractual obligations to the owners of firm. The theory also recognizes the groups who are the stakeholders of the company by describing and recommending the approaches through which executives can extend the deserved honour to the benefit of those groups (Hassan, 2012).

As stated by Freeman (2010), the stakeholder theory endeavours to take care of the principal, no matter what the ultimate goal of firm is, chief executives are anticipated to always work towards satisfying the competing interests of the stakeholders that are either positively or adversely affected by their actions and inactions. One of the financial goals of business organizations is the maximization of wealth of stakeholders. This objective can be accomplished by producing of superior products of high quality and delivering top notch services for customers. This value maximization process can be evident through effective and efficient operational processes and enhanced corporate goodwill. The theory also stresses that the financial success of the company extensively relies on how it maintains its association with different stakeholders (Elijido-Ten, 2009). Executives are fully aware that failure to maximize the value of stakeholders would definitely bring about the withdrawal of support and investment from the stakeholders. Therefore, for a company to be a going concern in its full operational capability and capacity, the financial support of stakeholders is very vital. This is the main reason why chief executives will choose to publish the higher quality financial information voluntarily to their stakeholders in order to motivate them to make the informed investment, financial and social business decisions.

The theory links to this study because financial reporting aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent, and comparable. Thus, discretionary accruals are minimized. Therefore, the company reduces the cost of raising capital and also improves the growth and become more competitive. This will in turn boost the firm earning quality.

2.2.3 Signaling Effect Theory

Signalling theory, put forward by Ross (1977), explains behaviour where there is provision of information between two parties such as individuals and organizations. It involves business ventures communicating to potential investors based on value and commitment signal, which reflects the value of the firm. The communication presented is significant to potential investors in making rational investment decision (Busenitz et al, 2005). According to Bhattacharya and Dittmar (2001), investors put money where the mouth is and the signalling mechanism is an important guide in making such crucial investment decisions. Ou and Penman (1989) confirmed that financial ratios generated from financial statements can perfectly forecast future changes in earnings, and the same information can be applied in predicting the future returns. Signals forecast variation in earnings and future revisions in the predictions by analysts on the earnings (Abarbanell & Bushee, 1998).

If there is an occurrence of signalling within a company, that would increase the earnings, but if it is revealed there were accounting errors, a product recall or a scandal, the earning would be adversely affected. Therefore, signalling could mean there will be higher earnings in the future or even higher stock price for a company. However, it does not guarantee occurrence of a negative event either before or after the release of earnings (Bhattacharya & Dittmar, 2001). Poterba and Summers (1983) documented testing of the signaling theory. They opined

that stock prices have a habit of increasing when a firm releases its financial statements, posting good results announces an increment in dividend payouts, which results to increase its value and its value, falls when it posts negative results because dividends are to be reduced. The research concluded existence of an insignificant difference amongst the hypothesis that a financial report that conveys good results and consequently an increased dividend bears good news and the hypothesis that a financial report that conveys negative results and consequently a decreased dividend is bad news for investors.

The theory links to this study because FR entails firms communicating to potential investors based on value and commitment signal, which reflects the value of the firm. Thus, if it turns out that the company had poor FRQ through and actually had a scandal, a product recall, accounting errors, or discretionary accruals, earnings would be adversely affected and the earnings quality of the firm could decline drastically.

2.3 Determinants of Earnings Quality

This section went over the numerous factors that influence earnings quality. These are: discretionary accruals, shareholder structure, accounting standards and firm size.

2.3.1 Discretionary Accruals

Accounting adjustments known as discretionary accruals illustrate the differences between accrual and cash accounting standards (Walker, 2013). When projected non-discretionary accruals are subtracted from total accruals, they leave an undetected portion of total accruals. They are a part of total accruals, which are not directly observable, and they are easy for the corporation to manipulate (Kuo et al., 2014). Accruals serve as a standard for determining the

quality of earnings. These are produced by both the application of stringent accounting regulations and the application of professional judgment; alternatives in accounting treatment.

2.3.2 Accounting Standards

Accounting standards are the major fountain of Generally Accepted Accounting Principles (GAAP) and are the definitive rules for financial reporting. Accounting standards define how to identify, measure, present, and disclose transactions and other events in financial statements. The differences in accounting standards used in financial report preparation amongst local and international standards would be a significant factor influencing earnings quality. Companies that follow international accounting standards, on the other hand, have less Earnings Smoothing techniques, according to Barth et al. (2008).

2.3.3 Shareholder Structure

The percentage ownership and voting rights held by distinct shareholders are referred to as shareholder structure. The power distribution among existing Shareholders, potential Shareholders, and managers is referred to as shareholder structure. According to Lee et al. (2007), organizations with a higher share of independent members on the Board of Directors have less aggressive profits management techniques. According to Velury and Jenkins (2006), the proportion of shares owned by board members and profit quality had a statistically significant positive relationship. Although Lai and Tam (2007) discovered a statistically significant positive association amongst the percentage of independent board members and earnings quality though Wang (2007) disagreed. Tang and Wang (2007) found that capital concentration and earnings quality had a statistically significant positive connection, as a result, as the ratio of capital concentration falls, the profits quality falls as well.

2.3.4 Corporate Governance

Corporate governance, which is a system of laws, regulations, and processes that govern how a company's board of directors oversees and governs its activities, includes the principles of openness, accountability, and security. The number of board members and earnings management have a statistically significant direct link, as well as a statistically significant negative association amongst the number of board members and earnings quality, according to Beasley (1996). According to Wild (1996), Vafeas (2005), and Zhai (2006), the establishment and extension of the Audit Committee, and also the frequency of Audit Committee meetings, have a positive impact on earnings quality.

2.3.4 Firm Size

The size of the firm refers to the scope of its operations (Ehikioya, 2009). The three major metrics of corporate size are the total assets, sales, and market value of equity. In empirical corporate finance research, these are the most commonly used business size proxies (Guest, 2008). According to Hassan and Farouk (2014), the larger the firm, the more likely it is to face an agency problem. Large organizations, according to Kim, Liu, and Rhee (2003), have more sophisticated operations and activities than small businesses. As a result, analysts and other stakeholders find it difficult to comprehend the nature of these complicated activities, giving management additional leeway to manipulate earnings. Jensen (1986) discovered that large organizations had larger agency costs and consequently more immoral actions, which is consistent with the agency theory. Furthermore, analysts put more pressure on huge companies, so managers strive to match their expectations (Barton & Simko, 2002). Surprisingly, Bassiouny (2016) discovers that the size of a corporation has no bearing on the quality of its earnings. While Esho, Kofman, and Sharpe (2005) found that business size has a moderating effect on diversification and company performance.

2.4 Empirical Review

FRQ is an area that has been studied globally and locally as well, some researcher has noted some of its advantages for example its contribution in reduction of information risk, its positive effects from a financial perspective and improvement of liquidity (Lambert et al., 2007). More so the information contained in the financial statements is quite important more so when it comes to debt contracting (Costello & Wittenberg-Moerman, 2011).

Ferrero (2014) carried out global literature on the nexus between firm value and FRQ. The market to book ratio was used to gauge firm value, whereas earnings quality, conservatism, and accruals quality were applied to gauge quality reporting. The study used a panel research approach and looked at a sample of 1960 non-financial listed companies from 25 countries from 2002 to 2009. Regression study using Generalized Methods Moments (GMM) revealed a substantial positive connection between FRQ and company value.

An Asian comparative analysis on the case for and against quality financial reporting and firm value was conducted by Morris, Susilowati and Gray (2012). Simple random sampling was used to draw 262 companies, which were listed, in eight Asian countries. Amongst those selected some countries had adopted quality financial reporting while the rest had not. Secondary data was collected through use of a customised 441 items checklist for quality financial reporting. The study was carried out in the periods 2002 to 2007. Results of the study revealed that quality financial reporting improved the value, which did not only differ with time, but also varied across the countries under investigation. Moreover, disclosure levels adopted by institutions led to improvements in the corporate information asymmetry.

Moreover, Shima and Yang (2012) studied determinants of firm value through Choi's & Meek's (2008) accounting system development model application. The model broadly classified the determinants as major sources of finance which were equity and debt financing, legal systems adopted by a country, taxation policy, political and economic ties, inflation levels, economic development, education levels and culture. Secondary data was collected from 47 countries, which had quality financial reporting for periods 2000 to 2007. Results of the study revealed negative and not significant relationship between equity and FRQ while debt, legal and growth had positive and not significant relationship with quality financial reporting. Further, common wealth based members were influenced positively by quality financial reporting, while taxation had negative and significant influence to quality financial reporting.

On the regional front, Owolabi and Iyoha (2012) carried out an examination on the determinants of firm value in Africa. In the study, cross sectional data was gathered using a closed ended questionnaire, which drew respondents from users and preparers of annual audited financial statements. Purposive sampling was used to select 58 preparers of annual financial statements and 38 users of them. Data analysis was conducted using descriptive statistics and on average respondents, there were remarkable success since the adoption of quality financial reporting as a result of monitoring and enforcement of professional standards and quality of prevailing accounting education. Further, it was revealed that there were some benefits on firm value associated with adoption of quality financial reporting, for instance, improved management, better and quality reporting and budgeting policies, better risk management policy and lower operational costs.

Locally, Naghshbandi and Ombati (2014) examined the challenges and issues that affect FRQ in Kenya. They claimed that poor skills and competence in developing countries, perceptions from European or politically mitigated developing countries, their implementation has been impeded by varied compliance levels and regulatory rules, cultural and structural variances, and ownership arrangements of various corporate businesses. While these obstacles may hinder the implementation of IFRS, the projected benefits in terms of voluntary and mandated disclosure lead to higher levels of acceptance. This study has a conceptual gap because it attempted to identify the obstacles that FR faces while ignoring the effect of quality FR on firm value.

King'wara (2015) investigated on the impact of FRQ on business value. The study used a sample of publicly traded corporations from 1994 to 2003, excluding banks and insurance industries. The results of a comparison of firm value before and after the implementation of IFRS revealed that FRQ had a significant impact on business value. Companies in the banking and insurance sectors, on the other hand, were not included. These studies include a contextual gap since not all companies registered on the NSE were included in the study's population, hence the results may differ if the excluded sectors are added.

2.5 Conceptual Framework

A conceptual framework as indicated by Rocco and Plakhotnik (2009), lays the groundwork for research objectives and questions by basing a study in the appropriate knowledge constructs. The measures of discretionary accruals were the independent variables in this study, which comprised of; total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals. The dependent variable was the quality of earnings. Firm size was the study's control variable.

Independent Variables

Dependent Variable

Measures of Discretionary Accruals

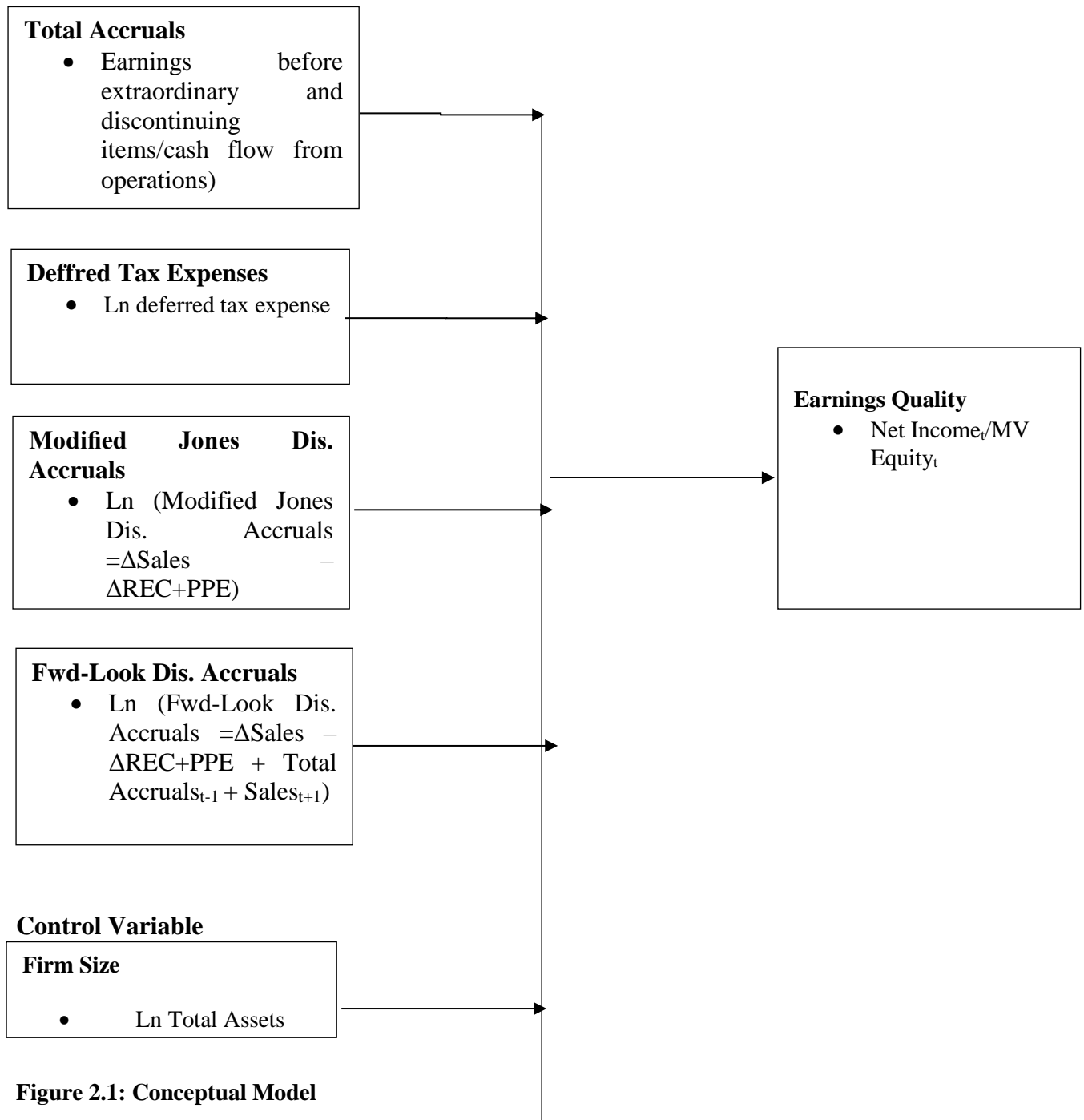


Figure 2.1: Conceptual Model

2.6 Summary of Research Gaps

Generally, almost all studies examined in the literature show that FRQ, which is synonymous to absence of discretionary accruals is an important factor in maximising the profits of a firm.

However, none of the literature reviewed have focused in earnings quality. This leaves a conceptual gap that this study sought to fill.

Several gaps were discovered, necessitating this investigation. Morris, Susilowati, and Gray (2012) and Shima and Yang (2012) both had methodological flaws since they did not provide quantitative indicators of discretionary accruals. There is also a conceptual flaw in the studies conducted by Shima and Yang (2012), Ferrero (2014) because they focussed on firm value instead of earnings quality. There is also a conceptual gap in the research carried by Naghshbandi and Ombati (2014) because it endeavoured to seek the challenges facing FR but not addressing the effect of quality FR on earnings quality. Lastly, the study conducted by King'wara (2015) has a contextual gap since not all companies listed on the NSE were applied as the study's population, and so the results could differ if the exempted sectors were added.

There was contextual gap as the investigations by Ferrero (2014), Morris, Susilowati, and Gray (2012), Shima and Yang (2012), and Owolabi and Iyoha (2012) were not done in Kenya context. The study by Owolabi and Iyoha (2012) has a methodological flaw since it used primary data that was cross-sectional, but the current study used secondary panel data.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section lays out the research approach that will be employed. This chapter is divided into various parts, including research design, which explains the design used, the population, data collection, which explains the procedure for acquiring data, and data analysis methods.

3.2 Research Design

Creswell (2015) notes that a research design means a description of how one is planning to conduct the study. The study subjects and the site of study are selected through the basis. It is a systematic plan to study a problem and it involves the actual execution and implementation of the research plans. This design considers factors such as the analysis method, the variables employed in the study, and the data collection procedures. The study used the descriptive research design in a bid to measure the data trends that exists in reference to the topic of study. 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 the trends that exist therein. The descriptive research design was chosen because it could be used to describe a variety of phenomena and their properties. Furthermore, the data sets generated by the descriptive technique aid in the summarization and support of factual assertions. The research was a formal study because it was guided by relevant theories and literature. Since the variables were not modified but just measured, it was also an ex post facto study. It was a field setup, with the country as the unit of study.

3.3 Target Population

Zikmund, Babin, Carr, and Griffin (2010) denotes population as all individuals or persons in a study. The population has a lot of the same features. A study population, according to Grabich

(2012), is a group of individuals, events, or items that are investigated with the goal of giving responses to research questions. The population in this study consisted of all the 64 NSE-listed companies, a list of which may be found in Appendix I. Because the entire population was analysed, the study was classified as a census.

3.4 Data Collection

The data collection technique is crucial since it has an impact on the results' legitimacy. The study relied on secondary data in this regard. Data from other sources was acquired from annual reports and financial statements of individual companies. The annual unit of analysis was used for the years 2016 to 2020, and annual data was collected. The following information was gathered: net income, market value of equity, total assets, earnings before extraordinary and discontinued items, cash flow from operations, differed tax liabilities, sales revenue, receivables, and property, plant, and equipment.

3.5 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 model is “linear in parameters”, spherical errors: no auto correlation and there is homoscedasticity and finally the assumption that is optional; normal distribution of error terms. The first five linear regression model assumptions, OLS Regression estimators as indicated by Gauss-Markov Theorem are the best linear non-biased estimators (Grewal et al., 2004). These presumptions 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 estimates of the variation

of the estimate would be unreliable leading to confidence intervals 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. The Shapiro-Wilk test will be 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 through the Breusch-Pagan Cook-Weisberg Test for Homoscedasticity.

Variance Inflation Factors (VIF) were utilized 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. Finally, the Durbin-Watson Statistic tested for existence of autocorrelation.

In addition, unit root testing was performed on the panel data to prevent false regression results. Before beginning the estimating technique, unit root testing was used to make sure that the macroeconomic variables under consideration have been integrated to order one (1, 1). The unit root test of Fisher type was used. The Hausman specification test was done in order to find

out if the applied variables have a fixed effect overtime or have a varying and random effect over time. Variables with a random effect was the null hypothesis while variable have a fixed effect was the alternate hypothesis. The null hypothesis would therefore be abandoned 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.

3.6 Data Analysis

To make it easier to examine, evaluate, and comprehend the data collected, it will be categorized, tabulated, and simplified. Since panel data will be used in the study, STATA version 13 was used as the statistical analysis application because it can conduct panel multiple linear regression. Correlation analysis was performed to determine if and to what extent discretionary accruals and firm size are linked to earnings quality. While regression analysis was used to find out what links them. Tabulations were used to present the quantitative reports gathered from the research.

The study utilized a 95 percent confidence interval. The critical value for the study was set to be less than 0.05, that is, the significance level should be smaller than 0.05. In order to draw inferences about the model's accuracy in predicting financial performance, a statistical inference methodology was applied. The model's significance was evaluated using 95 percent confidence intervals. The significant values determined the meaning of the link between each predictor variable and the response variable.

3.6.1 The Model of Analysis

A multiple linear regression analysis was used to achieve the study's objectives, which was to determine whether predictor variables have any influence on earnings quality. The statistical

tests were run at a 95% confidence level, which means the study allowed for a 5% margin of error. The model is depicted as follows:

$$Y_{i(t+1)} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \epsilon$$

Where:

$Y_{i(t)}$ = Earnings Quality

α = Constant

$\beta_1 - \beta_4$ = Beta coefficients

X_{1it} = Total Accruals

X_{2it} = Differed Tax Liability

X_{3it} = Modified Jones dis. Accruals

X_{4it} = Fwd-Look Dis. accruals

X_{5it} = Firm Size

ϵ = error term

Table 3.1: Operationalization of the Study Variables

Variable	Measurement
Earnings Quality	Net Income _t /MV Equity _t
Total Accruals	Earnings before extraordinary and discontinuing items/cash flow from operations)
Differed Tax Liability	Ln deferred tax expense
Modified Jones dis. Accruals	Ln (Modified Jones Dis. Accruals = Δ Sales – Δ REC+PPE)
Fwd-Look dis. Accruals	Ln (Fwd-Look Dis. Accruals = Δ Sales – Δ REC+PPE + Total Accruals _{t-1} + Sales _{t+1})
Firm Size	The natural logarithm of the average book value of the firm's complete assets during the time will be used to calculate this figure.

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, 58 firms were analysed. This because data of six firms was not available. Additionally, the current study used unbalanced panel data analysis. This is because two firms that merged in 2019, which included NIC Bank PLC and CBA Bank PLC, were analysed as separate entities and also Deacons PLC, was delisted in 2018

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
EarningsQu~y	282	0.15144	171.147	12.035	0.00000
TotalAccru~s	282	0.06458	188.666	12.263	0.00000
LnDiffered~y	282	0.88578	23.037	7.342	0.00000
LnModiedJo~s	282	0.45564	109.792	10.996	0.00000
LnFwdLookd~s	282	0.46159	108.593	10.971	0.00000
Firmsize	282	0.97285	5.476	3.979	0.00003

The significance values for all the variables utilized in the study are less than the α value (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.

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

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of EarningsQuality	
chi2(1)	= 1848.57
Prob > chi2	= 0.0000

The null hypothesis is that the data series utilized in the study is homoscedastic while the alternate hypothesis is that the data series utilized in the study is heteroscedastic. The study employed a 5% significance levels. The study findings established significance value obtained in the Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity is (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
LnFwdLookd~s	470.72	0.002124
LnModiedJo~s	469.35	0.002131
Firmsize	1.1	0.905956
LnDiffered~y	1.05	0.948289
TotalAccru~s	1.01	0.99165
Mean VIF	188.65	

In statistics, the general principle is that the VIF values ought to be more than 1 and less than 10. According to this study findings, the VIF values for total accruals, differed tax liability, and firm size are greater than 1 and less than 10. This suggests that the variables do not have multicollinearity. However, the VIF value for Modified Jones dis. Accruals and Fwd-Look Dis. Accruals do not lie within the range of 1 and 10, thus the variables exhibited multicollinearity. The data series were thus normalized as a means to correct 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 $(6, 282) = 2.025569$. 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 does not exhibit serial autocorrelation because the Durbin Watson d statistics obtained lies 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 earnings quality.

Table 4.4: Unit Root Test for Earnings Quality

Fisher-type unit-root test for EarningsQuality			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	58
Ha: At least one panel is stationary	Avg. number of periods	=	4.86
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(116)	P	522.7580	0.0000
Inverse normal	Z	-8.2461	0.0000
Inverse logit t(269)	L*	-16.4555	0.0000
Modified inv. chi-squared	Pm	26.7050	0.0000

According to the null hypothesis, there is unit root in earnings quality whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P, Z, L*, and Pm tests are less than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is rejected implying that the data series is stationary.

Table 4.5 presents the unit root test findings, which was undertaken on the data series total accruals.

Table 4.5: Unit Root Test for Total Accruals

Fisher-type unit-root test for TotalAccruals			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	58
Ha: At least one panel is stationary	Avg. number of periods	=	4.86
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(116)	P	828.8495	0.0000
Inverse normal	Z	-13.7870	0.0000
Inverse logit t(274)	L*	-28.7069	0.0000
Modified inv. chi-squared	Pm	46.8009	0.0000

According to the null hypothesis, there is unit root in total accruals whereas the alternative hypothesis holds that there is stationarity of the variable. Because all the significance value for the P, Z, L*, and Pm tests are less than the study critical value of ($\alpha=0.05$), thus, the null hypothesis is rejected implying that the data series is stationary.

Table 4.6 presents the unit root test findings, which was undertaken on the data series deferred tax expense.

Table 4.6: Unit Root Test for Deferred Tax Expense

Fisher-type unit-root test for LnDifferedTaxLiability			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	58
Ha: At least one panel is stationary	Avg. number of periods	=	4.86
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(116) P	130.6951	0.1660	
Inverse normal Z	-1.8232	0.0341	
Inverse logit t(214) L*	-2.5886	0.0051	
Modified inv. chi-squared Pm	0.9648	0.1673	

According to the null hypothesis, there is unit root in differed tax expense whereas the alternative hypothesis holds that there is stationarity of the variable. The significance values of the Z and L* tests are less than the study critical value of ($\alpha=0.05$) while the significance values of the P and Pm tests are greater than the study critical value of ($\alpha=0.05$). In case of conflict between the Z and L* tests and the P and Pm tests, the Z and L* tests take priority. Thus, the Z and L* tests indicate that the null hypothesis is rejected implying that the data series is stationary.

Table 4.7 presents the unit root test findings, which was undertaken on the data series Modified Jones dis. accruals. According to the null hypothesis, there is unit root in the Modified Jones dis. accruals, whereas the alternative hypothesis holds that there is stationarity of the variable. The significance values of the Z and L* tests are greater than the study critical value of ($\alpha=0.05$) while the significance values of the P and Pm tests are less than the study critical value of ($\alpha=0.05$). In case of conflict between the Z and L* tests and the P and Pm tests, the Z and L* tests take priority. Thus, the Z and L* tests indicate that 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 4.7: Unit Root Test for Modified Jones Dis. Accruals

Fisher-type unit-root test for LnModiedJonesdisAccruals			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	58
Ha: At least one panel is stationary	Avg. number of periods	=	4.86
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(116)	P	199.6424	0.0000
Inverse normal	Z	2.8149	0.9976
Inverse logit t(269)	L*	0.5796	0.7187
Modified inv. chi-squared	Pm	5.4914	0.0000

Table 4.8 presents the unit root test findings, which was undertaken on the data series Fwd-Look Dis. accruals.

Table 4.8: Unit Root Test for Fwd-Look Dis. Accruals

Fisher-type unit-root test for LnFwdLookdisAccruals			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots	Number of panels	=	58
Ha: At least one panel is stationary	Avg. number of periods	=	4.86
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(116)	P	293.3845	0.0000
Inverse normal	Z	0.0441	0.5176
Inverse logit t(264)	L*	-4.3814	0.0000
Modified inv. chi-squared	Pm	11.6459	0.0000

According to the null hypothesis, there is unit root in the Fwd-Look Dis. accruals, whereas the alternative hypothesis holds that there is stationarity of the variable. The significance values of the Z test is greater than the study critical value of ($\alpha=0.05$), while the significance values of the P, L*, and Pm tests are less than the study critical value of ($\alpha=0.05$). Because a majority of the tests were less than the study critical value of ($\alpha=0.05$), it indicates that the null hypothesis is rejected implying that the data series is stationary.

Table 4.9 presents the unit root test findings, which was undertaken on the data series firm size.

Table 4.9: Unit Root Test for Firm Size

Fisher-type unit-root test for Firmsize			
Based on augmented Dickey-Fuller tests			
Ho: All panels contain unit roots		Number of panels	= 58
Ha: At least one panel is stationary		Avg. number of periods	= 4.86
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(116)	P	395.8461	0.0000
Inverse normal	Z	-0.2542	0.3997
Inverse logit t(264)	L*	-6.5066	0.0000
Modified inv. chi-squared	Pm	18.3728	0.0000

According to the null hypothesis, there is unit root in the firm size, whereas the alternate hypothesis holds that there is stationarity of the variable. The significance values of the Z test is greater than the study critical value of ($\alpha=0.05$), while the significance values of the P, L*, and Pm tests are less than the study critical value of ($\alpha=0.05$). Because a majority of the tests were less than the study critical value of ($\alpha=0.05$), it indicates that the null hypothesis is rejected implying that the data series is stationary.

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 4.10 presents the findings on the Hausman test of specification.

Table 4.10: Hausman Test of Specification

	---- Coefficients ----			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
TotalAccru~s	-3.16E-07	1.86E-08	-3.34E-07	2.82E-07
LnDiffered~y	-0.06736	-0.02186	-0.04549	0.027692
LnModiedJo~s	-4.54858	-4.01843	-0.53015	0.340174
LnFwdLookd~s	4.550512	4.004801	0.54571	0.342042
Firmsize	-2.433556	.0304284	-2.46398	1.230045

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

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

$$= 7.12$$

$$\text{Prob}>\text{chi2} = 0.1298$$

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 earnings quality. 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 .

As shown in table 4.11, with significance level at 5%, none of the discretionary accruals measures utilized in the study which entailed; total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size had a significant correlation with earnings quality. 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, total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size do not have a significant correlation with firm value.

Table 4.11: Correlation Analysis

	EarningsQu~y	TotalAccru~s	LnDiff~y	LnModi~s	LnFwdL~s	Firmsize
EarningsQu~y	1.0000					
TotalAccru~s	0.0081 0.8929	1.0000				
LnDiffered~y	0.0235 0.6946	-0.0201 0.7365	1.0000			
LnModiedJo~s	-0.0112 0.8512	-0.0131 0.8271	0.0422 0.4801	1.0000		
LnFwdLookd~s	0.0062 0.9170	-0.0121 0.8395	0.0459 0.4431	0.9989* 0.0000	1.0000	
Firmsize	0.0638 0.2855	-0.0773 0.1957	-0.1834* 0.0020	0.1750* 0.0032	0.1807* 0.0023	1.0000

4.3.2 Multiple Linear Regression

The effect of discretionary accruals measures utilized in the study which entailed; total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size on earnings quality 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 4.12 exhibits the findings.

Prior to carrying out the multiple linear regression analysis, the variables had to be modified as the normality, homoscedasticity, 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. Finally, the Modified Jones dis. accruals data series was first differentiated as unit root remedy.

Table 4.12: Random Effects Panel Multiple Linear Regression

```

Random-effects GLS regression           Number of obs   =       224
Group variable: A                       Number of groups =        58

R-sq:  within = 0.0004                  Obs per group:  min =         2
        between = 0.0226                  avg =         3.9
        overall = 0.0045                  max =         4

                                           Wald chi2(5)    =       612.92
corr(u_i, X) = 0 (assumed)              Prob > chi2     =       0.0000

                                           (Std. Err. adjusted for 58 clusters in A)

```

zEarningsQ~y	Robust		z	P> z	[95% Conf. Interval]	
	Coef.	Std. Err.				
zTotalAccr~s	.0264696	.026576	1.00	0.319	-.0256184	.0785576
zDifferedT~y	-.0041981	.0874901	-0.05	0.962	-.1756755	.1672794
dzLnModifi~s	-.0229014	.0366856	-0.62	0.532	-.094804	.0490011
zLnFwdLook~s	.0057696	.0346791	0.17	0.868	-.0622002	.0737393
zFirmssize	.0980426	.1371746	0.71	0.475	-.1708147	.3668999
_cons	-.0552527	.093796	-0.59	0.556	-.2390896	.1285841
sigma_u	.69127412					
sigma_e	1.0382662					
rho	.3071362	(fraction of variance due to u_i)				

The R^2 indicates that the variations in the dependent variable (earnings quality) which emanates from the changes in the independent variables. The overall R^2 value from the findings is 0.0045 which implies that 0.45% of earnings quality changes are as a result of changes in the model

entailing; the discretionary accruals measures utilized in the study which comprised of total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size. This implied that other variables which are not incorporated in the model are attributable to the 99.55% of the changes in earnings quality.

Table 4.12 further illustrates that the model consisting of the discretionary accruals measures utilized in the study which entailed total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size significantly predicts earnings quality. This is because the significance value obtained for the model ($\text{Prob} > \chi^2 = 0.0000$) is below the study critical value ($\alpha = 0.05$). The results in Table 4.12 finally demonstrate that total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size do not each individually have a significant relationship with earnings quality. 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 establishing the impact of discretionary accruals on the earnings quality of Nairobi Securities Exchange-listed companies. It also aimed at unravelling the impact of discretionary accruals measures utilized in the study which entailed total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size on the earnings management of firms listed at the Nairobi Securities Exchange.

The study findings established that total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size do not have a significant correlation with earnings quality at the 5% significance level. Further study findings established that the model entailing discretionary accruals measures utilized in the study which comprised of total

accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size explains earnings quality to a very least extent with a coefficient of determination value of 0.45%. Additional study findings were that that the model consisting of discretionary accruals measures utilized in the study which entailed total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size significantly predicts earnings quality. Final study findings were that total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size do not each individually have a significant relationship with earnings quality.

The study finding that discretionary accruals has a significant effect on earnings quality is congruent to the agency theory which implies that financial reporting aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent, and comparable. Thus, discretionary accruals are minimized. Therefore, the company reduces the cost of raising capital and also improves the growth and become more competitive and this will in turn boost the firm earning quality.

The study finding that discretionary accruals has a significant effect on earnings quality is also in tandem to stakeholder theory which stipulates that financial reporting aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent, and comparable. Thus, discretionary accruals are minimized. Therefore, the company reduces the cost of raising capital and also improves the growth and become more competitive and this will in turn boost the firm earning quality.

Further, the study finding that discretionary accruals has a significant effect on earnings quality is similar to the signalling theory which enumerates that FR entails firms communicating to

potential investors based on value and commitment signal, which reflects the value of the firm. Thus, if it turns out that the company had poor FRQ through and actually had a scandal, a product recall, accounting errors, or discretionary accruals, earnings would be adversely affected and the earnings quality of the firm could decline drastically.

The study finding that discretionary accruals has a significant effect on earnings quality is parallel to the assertions by Bushman and Smith (2001), Bens et al, (2002), Gunny (2005), García-Lara et al. (2010), and Ahmed and Duellmand, (2011) that one of the most pressing concerns about how the market perceives high earnings quality is the impact of FR quality on a company's subsequent performance. The market favourably judges those firms that have are highly capable of providing quality financial data to shareholders and other stakeholders, having demonstrated that firms with quality financial data have a relatively better worth in the future, aiming for the elimination or avoidance of information asymmetries among market participants.

Lambert et al. (2007) study finding revealed that the accuracy of accounting information has the ability of influencing the cost of capital in both direct and indirect ways through affecting the perception of the market players regarding future cash flow dispersion and directly by influencing the actual decision, which can change the projected cash flow distribution. Chen et al. (2011) discovered that in private businesses, FRQ influences their investment efficiency in upcoming markets and the influence improves bank finances and reduces incentives to reduce earnings for the purposes of tax avoidance. The study finding that discretionary accruals has a significant effect on earnings quality is in sync to these assertions

The study finding that firm size neither has a significant association nor relationship with earnings quality is in tandem to Bassiouny (2016) study finding which revealed that the size of a corporation has no bearing on the quality of its earnings.

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 establish the impact of discretionary accruals on the earnings quality of Nairobi Securities Exchange-listed companies. It also aimed at unravelling the impact of discretionary accruals measures utilized in the study which entailed total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size on the earnings management 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 total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size do not have a significant correlation with earnings quality at the 5% significance level. The multiple linear regression revealed that the model entailing discretionary accruals measures utilized in the study which comprised of total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size explains earnings quality to a very least extent with a coefficient of determination value of 0.45%. Further findings were that the model entailing; discretionary accruals measures utilized in the

study which comprised of total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals, as well as firm size significantly predicts earnings quality. The final findings were that total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size 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 establish the impact of discretionary accruals on the earnings quality of Nairobi Securities Exchange-listed companies. The study concluded that discretionary accruals significantly impact on earnings quality. The study also sought to determine the effect of total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size on the earnings quality of firms listed at the Nairobi Securities Exchange. The study concluded that total accruals, deferred tax expense, Modified Jones dis. accruals, Fwd-Look Dis. accruals, and firm size neither have a significant association nor relationship with earnings quality.

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 discretionary accruals and earnings quality. Subsequent researchers interested in discretionary accruals and earnings quality will use the study results as a reference. The study will also add to the nexus of firm value. Similarly, the work will provide resourceful material for future scholars and researcher interested in the subject of discretionary accruals and earnings quality.

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 discretionary accruals significantly influence firms' earnings quality, the policy makers should focus on discretionary accruals when endeavouring to boost firm earnings quality in order to spur the development of capital markets. CMA as well as NSE should boost their surveillance and monitoring of listed firms to stem discretionary accruals which will in turn boost the firms' earnings quality, and ultimately their value. 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 discretionary accruals have a significant influence on firm value generates recommendations to the financial analysts to estimate market capitalization, and by extension, securities value, by gauging the extent to which firms employ discretionary accruals. The earnings quality of firms that rampantly utilize discretionary accruals will most likely to be poor. Henceforth, this study will offer them immeasurable insights, which will help them when advising their clients. Consultants and listed firms practitioners should focus on discretionary accruals to time strategies like securities exchange listings, rights issues, and dividend pay-outs. Less use of discretionary accruals will signal earnings quality which will raze up demand of the firms' security instrument offerings.

5.5 Recommendations for Further Study

To explore the impact of discretionary accruals on earnings quality 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 discretionary accruals measures that included; total accruals, deferred tax expense, Modified Jones dis. accruals, and Fwd-Look Dis. accruals. Further research can be done when including other measures of discretionary accruals. Additionally, firm size 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 discretionary accruals and earnings quality.

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
EGAD	Eaagads Limited
KUKZ	Kakuzi Limited
KAPC	Kapchorua Tea Company Limited
LIMT	Limuru Tea Company Limited
SASN	Sasini Tea and Coffee
WTK	Williamson Tea Kenya Limited
Automobiles and Accessories	
Ticker	Company Name
G&G	Car & General Kenya
Banking	
Ticker	Company Name
BBK	Barclays Bank of Kenya
CFC	CfC Stanbic Holdings
DTK	Diamond Trust Bank Group
EQTY	Equity Group Holdings Limited
HFCK	Housing Finance Company of Kenya
I&M	I&M Holdings Limited
KCB	Kenya Commercial Bank Group
NBK	National Bank of Kenya
NIC	National Industrial Credit Bank
SCBK	Standard Chartered of Kenya
COOP	Cooperative Bank of Kenya
Commercial and Services	
Ticker	Company Name
XPRS	Express Kenya Limited
KQ	Kenya Airways
LKL	Longhom Kenya Limited
EVRD	Eveready East Africa
SCAN	Scangroup
NMG	Nation Media Group
SGL	Standard Group Limited
FIRE	Sameer Africa Limited
TPSE	TPS Serena
UCHM	Uchumi Supermarkets

Construction and Allied	
Ticker	Company Name
ARM	ARM Cement Limited
BAMB	Bamburi Cement Limited
BERG	Crown-Berger (Kenya)
CABL	East African Cables Limited
PORT	East Africa Portland Cement Company
Energy and Petroleum	
Ticker	Company Name
KEGN	Kengen
KENO	KenolKobil
KPLC	Kenya Power and Lighting Company
TOTL	Total Kenya Limited
UMME	Umeme
Insurance Segment	
Ticker	Company Name
BRIT	British-American Investments Company
CIC	CIC Insurance Group
CFCI	Liberty Kenya Holdings Limited
JUB	Jubilee Holdings Limited
KNRE	Kenya Reinsurance Corporation
PAFR	Sanlam Kenya Plc
Investments	
Ticker	Company Name
ICDC	Centum Investment Company
OCH	Olympia Capital Holdings
HAFR	Home Afrika Ltd
TCL	TransCentury Investments
Investment Services	
Ticker	Company Name
NSE	Nairobi Securities Exchange
Manufacturing and Allied	
Ticker	Company Name
BOC	BOC Kenya Limited
BAT	British American Tobacco Limited
CARB	Carbacid Investments Limited
EABL	East African Breweries
EVRD	Eveready East Africa
ORCH	Kenya Orchards Limited
MSC	Mumias Sugar Company Limited
UNGA	Unga Group

Telecommunication and Technology	
Ticker	Company Name
SCOM	Safaricom

Source: Nairobi Securities Exchange Website (2020)

Appendix II: Data Collection Form

Name of Commercial Bank							
	Year						
Data	2014	2015	2016	2017	2018	2019	2020
Net Income							
Market Value of Equity							
Earnings Quality							
Earnings before Extraordinary and Discontinuing Items							
Cash flow from Operations							
Total Accruals							
Differed Tax Liability							

Ln Differed Tax Liability							
Sales							
Receivables							
Property, Plant and Equipment							
Modified Jones dis. Accruals							
Fwd-Look dis. Accruals							
Dividends							
Total Assets							
Firm Size							

Appendix III: Research Data

	COMPANY	Year	Common shares outstanding	share price	Market Value (Thousands)	Net income (Thousands)	Earnings Quality	Net income	Cash flows from operations	Total Accruals	Differed Tax Liability	Ln Differed Tax Liability	Sales
1	Athi river mining	2018	9.6E+08	13	12479223	-6549812	-0.52486	-6549812	-522891	12.52615	14269	9.565845	21
1	Athi river mining	2017	8.49E+08	25.5	21647970	-2800175	-0.12935	-2800175	-1279015	2.189321	14278	9.566475	23
1	Athi river mining	2016	4.95E+08	41.75	20677731	7722126	0.373451	7722126	-190035	-40.6353	13026	9.474703	35
2	Bamburi	2020	3.63E+08	80	29036742	359000	0.012364	359000	3119000	0.115101	13301	9.495594	10
2	Bamburi	2019	3.63E+08	132.5	48092104	572000	0.011894	572000	2823000	0.202621	13544	9.513699	10
2	Bamburi	2018	3.63E+08	180	65332670	6466000	0.09897	6466000	4951000	1.305999	170000	12.04355	14
2	Bamburi	2017	3.63E+08	160	58073484	3547000	0.061078	3547000	3949000	0.898202	93000	11.44035	10
2	Bamburi	2016	3.63E+08	175	63517873	4238000	0.066721	4238000	6267000	0.676241	449000	13.01478	12
3	Car & General	2020	40103308	26	1042686	252798	0.242449	252798	-286871	-0.88123	0	0	7
3	Car & General	2019	40103308	21.5	862221.1	270221	0.313401	270221	538632	0.50168	472000	13.06473	6
3	Car & General	2018	40103308	21	842169.5	119268	0.14162	119268	592573	0.201271	13010	9.473474	5
3	Car & General	2017	40103308	27	1082789	217426	0.200802	217426	-223219	-0.97405	5902	8.683047	6
3	Car & General	2016	40103308	39.5	1584081	212777	0.134322	212777	404590	0.525908	142	4.955827	5
4	Carbacid	2020	2.55E+08	8.02	2043913	272365	0.133257	272365	411404	0.662038	1667	7.418781	
4	Carbacid	2019	2.55E+08	15.4576	3939400	291791	0.07407	291791	296691	0.983485	3655	8.203851	
4	Carbacid	2018	2.55E+08	18.6064	4741879	331504	0.06991	331504	326574	1.015096	27981	10.23928	
4	Carbacid	2017	2.55E+08	30.8254	7855914	375568	0.047807	375568	374074	1.003994	0	0	
4	Carbacid	2016	2.55E+08	132.2107	33694156	393316	0.011673	393316	560378	0.701876	0	0	
5	Crown Berger	2020	71181000	62.5	4448813	132615.9	0.029809	132615.9	-6333.79	-20.9379	958	6.864848	4
5	Crown Berger	2019	71181000	80	5694480	174520	0.030647	174520	35352	4.936637	109079	11.59983	4
5	Crown Berger	2018	71181000	80	5694480	229665	0.040331	229665	-197317	-1.16394	0	0	4
5	Crown Berger	2017	71181000	42	2989602	233426	0.078079	233426	330312	0.706683	196	5.278115	3
5	Crown Berger	2016	71181000	61	4342041	59704	0.01375	59704	339526	0.175845	296	5.690359	3
6	East Africa Cables	2020	2.53E+08	2.5	632812.5	628236	0.992768	628236	87196	7.204872	1160	7.056175	4

6	East Africa Cables	2019	2.53E+08	2.72	688500	-264923	-0.38478	-264923	311276	-0.85109	52764	10.87358	5
6	East Africa Cables	2018	2.53E+08	5.45	1379531	-677607	-0.49119	-677607	120868	-5.60617	0	0	5
6	East Africa Cables	2017	2.53E+08	5.95	1506094	-593578	-0.39412	-593578	597029	-0.99422	189745	12.15344	4
6	East Africa Cables	2016	2.53E+08	10.6	2683125	184673	0.068828	184673	144628	1.276883	346031	12.75428	5
7	E.A Portland	2020	90000000	14.5	1305000	-5.8E+07	-44.215	-5.8E+07	-1767222	32.65047	15113	9.623311	13
7	E.A Portland	2019	90000000	16	1440000	7805062	5.420182	7805062	-1000023	-7.80488	15213	9.629906	13
7	E.A Portland	2018	90000000	27	2430000	-1055777	-0.43448	-1055777	-565886	1.865706	0	0	10
7	E.A Portland	2017	90000000	23.5	2115000	4137167	1.956107	4137167	358352	11.54498	0	0	9
7	E.A Portland	2016	90000000	46.75	4207500	7172418	1.704675	7172418	-397030	-18.0652	0	0	9
8	Eveready	2020	2.1E+08	1.1	231000	-303544	-1.31404	-303544	-4469	67.92213	0	0	
8	Eveready	2019	2.1E+08	3.543	744030	-111703	-0.15013	-111703	-176611	0.63248	0	0	
8	Eveready	2018	2.1E+08	3.639876	764374	272792	0.356883	272792	-253632	-1.07554	5258	8.567506	
8	Eveready	2017	2.1E+08	3.40754	715583.3	-195911	-0.27378	-195911	-107475	1.822852	5416	8.597113	
8	Eveready	2016	2.1E+08	2.580242	541850.8	464024	0.856369	464024	1196	387.9799	60335	11.00767	
9	Kakuzi	2020	19599999	340	6664000	713439	0.107059	713439	785578	0.908171	0	0	3
9	Kakuzi	2019	19599999	310	6076000	484640	0.079763	484640	361190	1.341787	0	0	1
9	Kakuzi	2018	19599999	329	6448400	593378	0.092019	593378	923574	0.64248	35355	10.4732	1
9	Kakuzi	2017	19599999	309	6056400	568361	0.093845	568361	701637	0.81005	0	0	1
9	Kakuzi	2016	19599999	317	6213200	464669	0.074787	464669	873775	0.531795	132810	11.79667	1
10	Kengen	2020	6.59E+09	5.72	37720668	6230409	0.165172	6230409	23225377	0.268259	0	0	170
10	Kengen	2019	6.59E+09	7	46161656	7267712	0.15744	7267712	17509821	0.415065	128071	11.76034	189
10	Kengen	2018	6.59E+09	8.55	56383166	8477716	0.150359	8477716	13200812	0.642212	0	0	193
10	Kengen	2017	6.24E+09	5.8	36214468	6447223	0.178029	6447223	29256013	0.220373	0	0	194
10	Kengen	2016	2.2E+09	7.1	15608366	65763763	4.213366	65763763	12525691	5.25031	60458	11.0097	181
11	Kenolkobil	2018	1.47E+09	19.5	28699343	2517298	0.087713	2517298	338296.7	7.441095	58663	10.97956	12
11	Kenolkobil	2017	1.47E+09	14	20604657	2464703	0.119619	2464703	-921527	-2.67459	140843	11.8554	12
11	Kenolkobil	2016	1.47E+09	14.9	21929242	2413207	0.110045	2413207	2510258	0.961338	0	0	12
12	KPLC	2020	1.95E+09	2.81	5483622	696666.1	0.127045	696666.1	28831709	0.024163	83236	11.32944	114

12	KPLC	2019	1.95E+09	4.07	7942471	1917992	0.241486	1917992	28086126	0.06829	0	0	118
12	KPLC	2018	1.95E+09	9.1	17758350	5280425	0.297349	5280425	27359824	0.192999	0	0	234
12	KPLC	2017	1.95E+09	8.15	15904456	7196563	0.452487	7196563	25677042	0.280272	0	0	272
12	KPLC	2016	1.95E+09	13.2	25759365	7431957	0.288515	7431957	27610077	0.269176	23777	10.07647	267
13	KQ	2020	5.82E+09	2.05	11939000	-1.3E+07	-1.09029	-1.3E+07	15941000	-0.81657	0	0	230
13	KQ	2019	5.82E+09	8.9	51832733	-7558000	-0.14582	-7558000	6383000	-1.18408	0	0	192
13	KQ	2018	1.5E+09	17.15	25664444	-9248000	-0.36034	-9248000	5945000	-1.55559	180432	12.10311	213
13	KQ	2017	1.5E+09	5.85	8754344	-3E+07	-3.39306	-3E+07	6362000	-4.66897	0	0	139
13	KQ	2016	1.5E+09	4.9	7332698	-3.4E+07	-4.66295	-3.4E+07	1214000	-28.1647	0	0	191
14	Safaricom	2020	4.01E+10	31.5	1.26E+09	62491000	0.049515	62491000	99811000	0.626093	8000	8.987197	191
14	Safaricom	2019	4.01E+10	22.2	8.89E+08	55289000	0.062161	55289000	91960000	0.601229	46000	10.7364	188
14	Safaricom	2018	4.01E+10	26.75	1.07E+09	48444000	0.045201	48444000	79527138	0.609151	30000	10.30895	148
14	Safaricom	2017	4.01E+10	19.15	7.67E+08	38104290	0.049663	38104290	64603473	0.589818	349000	12.76283	143
14	Safaricom	2016	4.01E+10	16.3	6.53E+08	31871303	0.048803	31871303	61002564	0.522458	144000	11.87757	154
15	Sameer	2020	2.78E+08	3.4	946364.1	-697075	-0.73658	-697075	128672	-5.41746	1086304	13.89829	42
15	Sameer	2019	2.78E+08	1.85	514933.4	-691817	-1.34351	-691817	-325058	2.128288	2374556	14.68032	52
15	Sameer	2018	2.78E+08	2.8	779358.7	80363	0.103114	80363	560671	0.143334	617216	13.33297	11
15	Sameer	2017	2.78E+08	2.8	779358.7	-404424	-0.51892	-404424	-592375	0.682716	0	0	11
15	Sameer	2016	2.78E+08	3.75	1043784	-4352	-0.00417	-4352	35048	-0.12417	0	0	11
16	Sasini	2020	2.28E+08	16.9	3854138	1860140	0.482635	1860140	-399655	-4.65436	0	0	1
16	Sasini	2019	2.28E+08	19.9	4538304	301976	0.066539	301976	324344	0.931036	0	0	1
16	Sasini	2018	2.28E+08	29.5	6727637	313088	0.046538	313088	-228572	-1.36976	6951	8.846641	1
16	Sasini	2017	2.28E+08	19.2	4378666	772520	0.176428	772520	428909	1.801128	7555	8.929965	1
16	Sasini	2016	2.28E+08	19.55	4458485	974763	0.218631	974763	128142	7.606897	11442	9.345046	1
17	Standard Group	2020	81731808	27.55	2251711	-484067	-0.21498	-484067	527633	-0.91743	13901	9.539716	1
17	Standard Group	2019	81731808	29.5	2411088	261285	0.108368	261285	288407	0.905959	55770	10.92899	1
17	Standard Group	2018	81731808	37	3024077	-210838	-0.06972	-210838	653225	-0.32276	8895	9.093245	2
17	Standard Group	2017	81731808	16.5	1348575	198521	0.147208	198521	489326	0.405703	0	0	2
17	Standard Group	2016	81731808	28	2288491	-289603	-0.12655	-289603	-112244	2.58012	126143	11.74517	2

18	Total Kenya	2020	6.3E+08	27.5	17312418	2534532	0.1464	2534532	-275121	-9.21243	25627	10.1514	2
18	Total Kenya	2019	6.3E+08	27.5	17312418	2312582	0.133579	2312582	11763099	0.196596	17861	9.790375	2
18	Total Kenya	2018	6.3E+08	23.5	14794248	2738216	0.185087	2738216	381135	7.184373	0	0	3
18	Total Kenya	2017	6.3E+08	17	10702222	2234292	0.208769	2234292	3600991	0.620466	0	0	6
18	Total Kenya	2016	6.3E+08	18.25	11489150	1615003	0.140568	1615003	7827491	0.206324	0	0	6
19	TransCentury	2020	3.75E+08	2.5	938006.9	-2252704	-2.40159	-2252704	-131779	17.09453	0	0	16
19	TransCentury	2019	3.75E+08	2.95	1106848	-2967693	-2.68121	-2967693	-453874	6.538583	243992	12.40489	16
19	TransCentury	2018	3.75E+08	6	2251217	-3909613	-1.73667	-3909613	-1563233	2.500979	0	0	17
19	TransCentury	2017	2.81E+08	6.8	1913701	-858440	-0.44858	-858440	667051	-1.28692	0	0	19
19	TransCentury	2016	2.8E+08	8.25	2312347	-2508927	-1.08501	-2508927	-807144	3.108401	11858	9.380758	18
20	Uchumi	2020	3.65E+08	0.29	105838.3	-366414	-3.46202	-366414	-4100.02	89.3689	25472	10.14534	15
20	Uchumi	2019	3.65E+08	0.8	291967.7	-784803	-2.68798	-784803	21709.11	-36.1509	27017	10.20422	8
20	Uchumi	2018	3.65E+08	4.6	1678814	-1680928	-1.00126	-1680928	-114947	14.6235	11910	9.385134	8
20	Uchumi	2017	3.65E+08	3.95	1441590	-3600289	-2.49744	-3600289	608630	-5.9154	0	0	8
20	Uchumi	2016	3.65E+08	10.95	3996308	-3930610	-0.98356	-3930610	-1202162	3.269618	0	0	7
21	Unga Group	2020	75708873	34	2574102	544814	0.211652	544814	708872	0.768565	0	0	7
21	Unga Group	2019	75708873	34.428	2606505	783203	0.30048	783203	-236642	-3.30965	2843	7.952615	5
21	Unga Group	2018	75708873	42.20248	3195102	-7039	-0.0022	-7039	1595319	-0.00441	0	0	4
21	Unga Group	2017	75708873	31.36429	2374555	508816	0.214278	508816	666294	0.763651	6430	8.76873	4
21	Unga Group	2016	75706986	15.99677	1211068	621866	0.513486	621866	505450	1.230321	391224	12.87704	4
22	Nation Media	2020	1.89E+08	39.5	7447420	862600	0.115825	862600	1448400	0.595554	5314	8.5781	3
22	Nation Media	2019	1.89E+08	68.5	12915147	1056700	0.081819	1056700	575600	1.835823	103470	11.54704	3
22	Nation Media	2018	1.89E+08	116	21870905	1350900	0.061767	1350900	2184000	0.618544	16493	9.710691	4
22	Nation Media	2017	1.89E+08	93	17534433	1634700	0.093228	1634700	2152200	0.759548	0	0	3
22	Nation Media	2016	1.89E+08	191	36011577	2071100	0.057512	2071100	2925500	0.707947	33700	10.42525	3
23	BOC Kenya	2020	19525446	58	1132476	21426	0.01892	21426	2714	7.89462	0	0	3
23	BOC Kenya	2019	19525446	92.998	1815827	32318	0.017798	32318	4053	7.973847	175400	12.07482	3
23	BOC Kenya	2018	19525446	126.6074	2472067	23165	0.009371	23165	175540	0.131964	0	0	3
23	BOC Kenya	2017	19525446	145.4206	2839403	76875	0.027074	76875	84602	0.908666	183	5.209486	3

23	BOC Kenya	2016	19525446	113.4819	2215784	68450	0.030892	68450	207104	0.33051	0	0	3
24	EABL	2020	7.91E+08	155	1.23E+08	11515000	0.093946	11515000	22565803	0.510285	0	0	75
24	EABL	2019	7.91E+08	272.0078	2.15E+08	6390488	0.02971	6390488	13559342	0.471298	0	0	70
24	EABL	2018	7.91E+08	297.5785	2.35E+08	7725956	0.032832	7725956	13914471	0.555246	0	0	70
24	EABL	2017	7.91E+08	283.5675	2.24E+08	10137589	0.045209	10137589	18577235	0.5457	0	0	59
24	EABL	2016	7.91E+08	318.3952	2.52E+08	7962702	0.031626	7962702	18577235	0.428627	0	0	54
25	Eaagads Ltd	2020	32160000	10.1	324816	2647	0.008149	2647	30279	0.08742	0	0	54
25	Eaagads Ltd	2019	32160000	14.5	466320	-62527	-0.13409	-62527	-286	218.6259	0	0	
25	Eaagads Ltd	2018	32160000	22.75	731640	1477003	2.018756	1477003	2.70141	546752.4	453096	13.02386	
25	Eaagads Ltd	2017	32160000	22.75	731640	36903	0.050439	36903	-0.02552	-1446261	0	0	
25	Eaagads Ltd	2016	32160000	26.75	860280	922.0237	0.001072	922.0237	0.000241	3825626	0	0	
26	Williamson Tea	2020	17512640	139.5	2443013	-172362	-0.07055	-172362	1067216	-0.16151	0	0	1
26	Williamson Tea	2019	17512640	150	2626896	502769	0.191393	502769	297904	1.687688	0	0	1
26	Williamson Tea	2018	17512640	159	2784510	-261593	-0.09395	-261593	-232741	1.123966	0	0	1
26	Williamson Tea	2017	17512640	178	3117250	482747	0.154863	482747	780593	0.618436	0	0	2
26	Williamson Tea	2016	8756320	192	1681213	-227636	-0.1354	-227636	547852	-0.41551	157535	11.9674	2
27	Kapchorua Tea	2020	7824000	80	625920	-125665	-0.20077	-125665	496529	-0.25309	0	0	2
27	Kapchorua Tea	2019	7824000	75	586800	166405	0.28358	166405	31361	5.306113	73510	11.20518	1
27	Kapchorua Tea	2018	7824000	65.5	512472	-51769	-0.10102	-51769	163896	-0.31586	0	0	1
27	Kapchorua Tea	2017	7824000	80	625920	234322	0.374364	234322	146829	1.595884	0	0	1
27	Kapchorua Tea	2016	3912000	200	782400	-22785	-0.02912	-22785	-10646	2.14024	46679	10.75105	1
28	Limuru Tea	2020	2400000	450	1080000	1900	0.001759	1900	-1091	-1.74152	0	0	
28	Limuru Tea	2019	2400000	500	1200000	2548	0.002123	2548	2291	1.112178	43202	10.67364	
28	Limuru Tea	2018	2400000	500	1200000	-22134	-0.01845	-22134	11732	-1.88663	0	0	
28	Limuru Tea	2017	2400000	530	1272000	-19074	-0.015	-19074	12238	-1.55859	0	0	
28	Limuru Tea	2016	2400000	883	2119200	3247	0.001532	3247	9611	0.337842	0	0	
29	Express	2020	35403790	6.84	242161.9	-23163	-0.09565	-23163	-48107	0.481489	0	0	
29	Express	2019	35403790	5	177019	-75794	-0.42817	-75794	-47649	1.590673	0	0	
29	Express	2018	35403790	3.75	132764.2	-90349.3	-0.68052	-90349.3	-49682.7	1.818527	8620	9.06184	

29	Express	2017	35403790	3.55	125683.5	-96807.4	-0.77025	-96807.4	-11321.9	8.550471	0	0	
29	Express	2016	35403790	4.5	159317.1	-59993.3	-0.37657	-59993.3	-82976.6	0.723015	0	0	42
30	TPS	2020	1.82E+08	17.55	3197156	181747	0.056846	181747	1072343	0.169486	0	0	35
30	TPS	2019	1.82E+08	23	4190004	179005	0.042722	179005	639273	0.280013	0	0	32
30	TPS	2018	1.82E+08	32.5	5920659	119465	0.020178	119465	798138	0.14968	0	0	
30	TPS	2017	1.82E+08	20.5	3734569	129328	0.03463	129328	774005	0.167089	1575	7.362011	
30	TPS	2016	1.82E+08	25	4554353	-280613	-0.06161	-280613	383984	-0.73079	13710	9.525881	
31	Scan Group	2020	4.32E+08	17.2	7433083	491409	0.066111	491409	635174	0.77366	0	0	7
31	Scan Group	2019	4.32E+08	14	6050184	515089	0.085136	515089	1058277	0.486724	0	0	6
31	Scan Group	2018	3.79E+08	19	7198437	512031	0.071131	512031	124826	4.101958	0	0	3
31	Scan Group	2017	3.79E+08	18.15	6876402	410727	0.05973	410727	2954	139.041	87813	11.38296	5
31	Scan Group	2016	3.79E+08	30	11365953	275304	0.024222	275304	619421	0.444454	204556	12.2286	4
32	Jubilee	2020	72472950	351	25438005	4017687	0.15794	4017687	-590894	-6.79934	153692	11.94271	4
32	Jubilee	2019	72472950	404.75	29333427	4126613	0.14068	4126613	2009964	2.053078	212481	12.26661	3
32	Jubilee	2018	72472950	499	36164002	4482556	0.123951	4482556	4015068	1.116433	77597	11.25928	5
32	Jubilee	2017	65884500	445.45	29348251	3675947	0.125253	3675947	1674592	2.19513	0	0	8
32	Jubilee	2016	65884500	440	28989180	3121093	0.107664	3121093	2694683	1.158241	0	0	98
33	Pan Africa	2020	1.44E+08	17.2	2476800	114399	0.046188	114399	-1804652	-0.06339	0	0	71
33	Pan Africa	2019	1.44E+08	22	3168000	-1979426	-0.62482	-1979426	-3041101	0.650891	1895.627	7.547305	75
33	Pan Africa	2018	1.44E+08	27.75	3996423	53045	0.013273	53045	-1903215	-0.02787	0	0	9
33	Pan Africa	2017	1.44E+08	27.75	3996000	70623	0.017673	70623	-2337522	-0.03021	87759	11.38235	8
33	Pan Africa	2016	1.44E+08	60	8640000	27350	0.003166	27350	-762835	-0.03585	104455	11.55651	8
34	Kenya Re	2020	7E+08	3.03	2120846	2396802	1.130116	2396802	4332358	0.553233	70983	11.1702	69
34	Kenya Re	2019	7E+08	13.95	9764289	1762906	0.180546	1762906	2374290	0.742498	139133	11.84319	61
34	Kenya Re	2018	7E+08	18.1	12669078	1762906	0.13915	1762906	2098138	0.840224	228195	12.33796	27
34	Kenya Re	2017	7E+08	22.5	15748854	2817492	0.178901	2817492	1554747	1.812187	11185	9.322329	27
34	Kenya Re	2016	7E+08	21	14698930	2310794	0.157208	2310794	2534651	0.911681	47322	10.76473	25
35	Liberty	2020	5.36E+08	10.35	5544573	740393	0.133535	740393	-1163841	-0.63616	230684	12.3488	24
35	Liberty	2019	5.36E+08	12.9	6910627	549526	0.079519	549526	-928896	-0.59159	8668	9.067393	23

35	Liberty	2018	5.36E+08	12.2	6535631	674573	0.103215	674573	1307350	0.515985	4438	8.397959	18
35	Liberty	2017	5.36E+08	13.15	7044554	627834	0.089123	627834	1015739	0.618106	0	0	15
35	Liberty	2016	5.36E+08	19.5	10446296	736050	0.07046	736050	1692971	0.434768	0	0	15
36	Britam	2020	2.52E+09	9	22711381	3542625	0.155985	3542625	8978752	0.394557	0	0	14
36	Britam	2019	2.52E+09	10	25234868	-2210285	-0.08759	-2210285	4831009	-0.45752	182344	12.11365	14
36	Britam	2018	2.16E+09	13.35	28870757	527474	0.01827	527474	7941982	0.066416	0	0	30
36	Britam	2017	1.94E+09	10	19384158	2480204	0.12795	2480204	5017387	0.494322	65098	11.08365	28
36	Britam	2016	1.94E+09	13	25199406	-1009458	-0.04006	-1009458	3412177	-0.29584	153145	11.93914	29
37	CIC	2020	2.62E+09	2.68	7009643	454892	0.064895	454892	2085777	0.218092	36511	10.50537	28
37	CIC	2019	2.62E+09	3.6	9415939	762432	0.080972	762432	2005234	0.380221	19603	9.883438	28
37	CIC	2018	2.62E+09	5.6	14647016	353070	0.024105	353070	2090521	0.168891	0	0	95
37	CIC	2017	2.62E+09	3.8	9939046	-41372	-0.00416	-41372	455474	-0.09083	83113	11.32796	79
37	CIC	2016	2.62E+09	6.2	16216339	782107	0.04823	782107	-1093403	-0.7153	6202	8.732627	70
38	Olympia	2020	40000000	2.01	80400	5743	0.07143	5743	55727	0.103056	151726	11.92983	65
38	Olympia	2019	40000000	2.1	84000	-3488	-0.04152	-3488	54865	-0.06357	135272	11.81504	59
38	Olympia	2018	40000000	3.5	140000	38848	0.277486	38848	22470	1.728883	37437	10.53041	27
38	Olympia	2017	40000000	2.85	114000	14834	0.130123	14834	152126	0.097511	0	0	23
38	Olympia	2016	40000000	4.8	192000	-29551	-0.15391	-29551	-46044	0.641799	7702	8.949235	22
39	Centum	2020	6.65E+08	29.5	19630531	4120246	0.20989	4120246	3640426	1.131803	43341	10.67685	19
39	Centum	2019	6.65E+08	29.25	19464170	2791897	0.143438	2791897	4737112	0.589367	0	0	17
39	Centum	2018	6.65E+08	43.75	29113075	8310292	0.285449	8310292	1873376	4.435998	97579	11.48842	34
39	Centum	2017	6.65E+08	37	24621343	9947630	0.404025	9947630	2489222	3.996281	20620	9.934017	35
39	Centum	2016	6.65E+08	46.5	30943040	7942432	0.256679	7942432	642208	12.36738	18726	9.837668	35
40	Home Africa	2020	4.05E+08	0.6	243153.2	-888808	-3.65534	-888808	60039.78	-14.8037	8552	9.05392	
40	Home Africa	2019	4.05E+08	0.7	283678.7	-346205	-1.22041	-346205	58056.25	-5.96327	15	2.70805	
40	Home Africa	2018	4.05E+08	1.4	567357.4	-181435	-0.31979	-181435	33533.18	-5.41061	9851	9.195328	
40	Home Africa	2017	4.05E+08	1.2	486306.4	-168458	-0.3464	-168458	-14753.9	11.41787	24117	10.09067	
40	Home Africa	2016	4.05E+08	2.6	1053664	-390091	-0.37022	-390091	-551409	0.707444	25516	10.14706	
41	NSE	2020	2.6E+08	12.5	3243760	62930	0.0194	62930	53817	1.169333	230848	12.34951	34

41	NSE	2019	2.6E+08	14.55	3775737	187365	0.049623	187365	67151	2.790204	344402	12.74956	35
41	NSE	2018	2.6E+08	19.7	5112166	218806	0.042801	218806	70180	3.117783	593227	13.29333	36
41	NSE	2017	2.6E+08	14.65	3801687	183754	0.048335	183754	195931	0.937851	5963.099	8.693346	35
41	NSE	2016	1.95E+08	18.56	3612240	305653	0.084616	305653	-109051	-2.80284	5229.971	8.562161	34
42	BAT	2019	1E+08	500	50000000	3905957	0.078119	3905957	7635815	0.511531	5549.214	8.621412	4
42	BAT	2018	1E+08	824.2094	82420940	4083425	0.049544	4083425	5300226	0.770425	10440.4	9.253438	39
42	BAT	2017	1E+08	788.1446	78814463	3343434	0.042422	3343434	4713472	0.709336	6058.189	8.709166	4
42	BAT	2016	1E+08	717.0159	71701587	4850732	0.067652	4850732	5161435	0.939803	0	0	35
42	BAT	2015	1E+08	556.371	55637097	4976256	0.089441	4976256	3930350	1.26611	44.133	3.787208	38
43	MUMIAS	2018	1.53E+09	1.3188	2017764	-1.5E+07	-7.50419	-1.5E+07	-526373	28.76607	0	0	35
43	MUMIAS	2017	1.53E+09	2.092562	3201620	-6803384	-2.12498	-6803384	-1317201	5.165031	0	0	
43	MUMIAS	2016	1.53E+09	2.647024	4049946	1488383	0.367507	1488383	-2592661	-0.57408	0	0	
44	Longhorn Publishers Limited	2020	2.72E+08	6.76	1841694	177509	0.096384	177509	83910	2.115469	902	6.804615	
44	Longhorn Publishers Limited	2019	2.72E+08	4.6	1253224	172940	0.137996	172940	524518	0.329712	716844	13.48261	
44	Longhorn Publishers Limited	2018	2.72E+08	5.4	1471176	118626	0.080633	118626	243554	0.487062	297400	12.60283	
44	Longhorn Publishers Limited	2017	1.57E+08	4.8	752476.8	100807	0.133967	100807	-530455	-0.19004	41332	10.62939	
44	Longhorn Publishers Limited	2016	1.02E+08	4.26	436117.5	63058	0.144589	63058	5189	12.15225	357487	12.78685	
45	Deacons (East Africa) PLC	2018	1.24E+08	0.45	55601.2	-2554723	-45.9473	-2554723	3884.137	-657.732	0	0	9
45	Deacons (East Africa) PLC	2017	1.24E+08	3.5	432453.8	-842614	-1.94845	-842614	-36680	22.97203	0	0	15
45	Deacons (East Africa) PLC	2016	1.24E+08	6.05	747527.3	-277916	-0.37178	-277916	346389	-0.80232	0	0	15
46	FTG Holdings	2020	2.53E+08	2.72	688500	44936.25	0.065267	44936.25	133231.5	0.337279	0	0	9
46	FTG Holdings	2019	2.53E+08	6.0636	1534849	33785.07	0.022012	33785.07	23096.68	1.462767	0	0	13
46	FTG Holdings	2018	2.53E+08	7.861364	1989908	39754.51	0.019978	39754.51	142944.4	0.278112	0	0	12
46	FTG Holdings	2017	2.53E+08	7.324	1853888	144980.5	0.078203	144980.5	39908.81	3.632794	0	0	11

46	FTG Holdings	2016	2.53E+08	7.861364	1989908	178848.1	0.089878	178848.1	130973.7	1.365527	0	0	9
47	Kenya Orchards	2020	90000000	12.5	1125000	8433.924	0.007497	8433.924	2400.374	3.513587	38554	10.55982	6
47	Kenya Orchards	2019	90000000	14	1260000	8886.114	0.007052	8886.114	2389.511	3.7188	59852	10.99963	1
47	Kenya Orchards	2018	90000000	97	8730000	5734.649	0.000657	5734.649	4005.857	1.431566	16756	9.726512	1
47	Kenya Orchards	2017	90000000	95	8550000	3763.108	0.00044	3763.108	-1974.35	-1.906	4032	8.302018	1
47	Kenya Orchards	2016	90000000	98	8820000	28915.65	0.003278	28915.65	-271.639	-106.449	1068	6.973543	1
48	Barclays Bank	2020	5.43E+09	13.35	72511006	7456077	0.102827	7456077	23879521	0.312237	0	0	23
48	Barclays Bank	2019	5.43E+09	10.95	59475319	7416000	0.12469	7416000	-1E+07	-0.71445	0	0	24
48	Barclays Bank	2018	5.43E+09	9.6	52142746	6926000	0.132828	6926000	4512000	1.535018	0	0	23
48	Barclays Bank	2017	5.43E+09	9.1	49426978	7399000	0.149696	7399000	-1.1E+07	-0.67763	0	0	21
48	Barclays Bank	2016	5.43E+09	13.6	73868890	8401000	0.113729	8401000	-3653000	-2.29975	0	0	20
49	Co-operative bank of Kenya	2020	5.87E+09	16.35	95928395	14311247	0.149187	14311247	20333487	0.703827	12782.6	9.45584	34
49	Co-operative bank of Kenya	2019	5.87E+09	16	93874882	12732486	0.135633	12732486	33085558	0.384835	6692.01	8.80867	21
49	Co-operative bank of Kenya	2018	5.87E+09	13.2	77446777	11405065	0.147263	11405065	6156618	1.852489	1443.161	7.274591	21
49	Co-operative bank of Kenya	2017	5.87E+09	13.2	77446777	12676210	0.163676	12676210	6802884	1.863358	4933.85	8.503875	19
49	Co-operative bank of Kenya	2016	5.87E+09	18	1.06E+08	11705559	0.110838	11705559	19635154	0.596153	0	0	1
50	Diamond Trust Bank	2020	2.8E+08	109	30476642	7269592	0.23853	7269592	10978535	0.662164	0	0	74
50	Diamond Trust Bank	2019	2.8E+08	156.5	43757747	7082115	0.161848	7082115	12570368	0.563398	0	0	10
50	Diamond Trust Bank	2018	2.8E+08	192	53683626	6925040	0.128997	6925040	2384927	2.90367	392	5.971262	90
50	Diamond Trust Bank	2017	2.8E+08	118	32993062	7728140	0.234235	7728140	-3459467	-2.23391	392	5.971262	92
50	Diamond Trust Bank	2016	2.8E+08	187	52285615	6599806	0.126226	6599806	-5094118	-1.29557	392	5.971262	79
51	Equity Bank	2020	3.77E+09	53.5	2.02E+08	24366293	0.12069	24366293	37091602	0.656922	0	0	44
51	Equity Bank	2019	3.77E+09	34.85	1.32E+08	19824000	0.150738	19824000	43481412	0.455919	0	0	32
51	Equity Bank	2018	3.77E+09	39.75	1.5E+08	18918051	0.126117	18918051	50972000	0.371146	0	0	28
51	Equity Bank	2017	3.77E+09	30	1.13E+08	16602529	0.146652	16602529	59753000	0.277853	0	0	28
51	Equity Bank	2016	3.77E+09	40	1.51E+08	17327000	0.114789	17327000	24367000	0.711085	0	0	22

52	Housing finance Company ltd	2020	3.85E+08	6.46	2484608	-110108	-0.04432	-110108	5205205	-0.02115	0	0	2
52	Housing finance Company ltd	2019	3.85E+08	5.54	2130762	-598218	-0.28075	-598218	2204386	-0.27138	0	0	3
52	Housing finance Company ltd	2018	3.85E+08	9.45	3634604	126216	0.034726	126216	5217834	0.024189	0	0	3
52	Housing finance Company ltd	2017	3.85E+08	12.73	4896138	905829	0.185009	905829	-4860535	-0.18636	0	0	3
52	Housing finance Company ltd	2016	3.85E+08	20.23	7780745	1196969	0.153837	1196969	-5806718	-0.20614	0	0	2
53	I&M Bank	2020	8.27E+08	54	44647780	8942877	0.200298	8942877	11830044	0.755946	0	0	293
53	I&M Bank	2019	8.27E+08	85	70278913	6552909	0.093241	6552909	30000643	0.218426	0	0	321
53	I&M Bank	2018	8.27E+08	127	1.05E+08	7264249	0.06918	7264249	1210400	6.001528	0	0	318
53	I&M Bank	2017	8.27E+08	90	74412966	7760162	0.104285	7760162	48834.56	158.9072	0	0	309
53	I&M Bank	2016	8.27E+08	100	82681074	7144411	0.086409	7144411	13899567	0.514002	0	0	282
54	KCB Bank	2020	3.07E+09	54	1.66E+08	25165168	0.151993	25165168	3102315	8.111739	0	0	233
54	KCB Bank	2019	3.07E+09	37.45	1.15E+08	23994970	0.208972	23994970	7908000	3.034265	0	0	377
54	KCB Bank	2018	3.07E+09	42.75	1.31E+08	19705130	0.150336	19705130	20158000	0.977534	0	0	417
54	KCB Bank	2017	3.07E+09	28.75	88149325	19722447	0.223739	19722447	-9082000	-2.1716	0	0	431
54	KCB Bank	2016	3.07E+09	43.75	1.34E+08	19623071	0.146288	19623071	4426320	4.43327	0	0	391
55	National Bank of Kenya	2020	3.39E+08	4.12	1395856	-895064	-0.64123	-895064	3002575	-0.2981	0	0	355
55	National Bank of Kenya	2019	3.39E+08	5.32	1802416	-84901	-0.0471	-84901	-1442967	0.058838	0	0	40
55	National Bank of Kenya	2018	3.39E+08	9.35	3167780	785082	0.247833	785082	693456	1.13213	0	0	50
55	National Bank of Kenya	2017	3.39E+08	7.2	2439360	70953	0.029087	70953	-1E+07	-0.00677	0	0	56
55	National Bank of Kenya	2016	3.39E+08	15.75	5336100	-1153477	-0.21616	-1153477	4420398	-0.26094	0	0	60
56	NIC Plc bank	2020	7.04E+08	36.85	25940195	4314023	0.166306	4314023	3514579	1.227465	0	0	261
56	NIC Plc bank	2019	7.04E+08	27.8	19569537	4228370	0.216069	4228370	8978277	0.470956	0	0	254
56	NIC Plc bank	2018	7.04E+08	30.68	21596884	4144418	0.191899	4144418	22935735	0.180697	0	0	237
56	NIC Plc bank	2017	7.04E+08	23.64	16641145	4330396	0.260222	4330396	829395	5.22115	0	0	193
56	NIC Plc bank	2016	7.04E+08	39.32	27678927	4485125	0.162041	4485125	-4831081	-0.92839	0	0	171
57	Stanbic Bank Kenya Ltd	2020	3.95E+08	109.25	43188889	6176072	0.143001	6176072	6251794	0.987888	0	0	157

57	Stanbic Bank Kenya Ltd	2019	3.95E+08	90.75	35875439	6227166	0.173577	6227166	53120365	0.117227	0	0	78
57	Stanbic Bank Kenya Ltd	2018	3.95E+08	81	32021053	4309494	0.134583	4309494	8985225	0.47962	0	0	60
57	Stanbic Bank Kenya Ltd	2017	3.95E+08	70.5	27870175	4418589	0.158542	4418589	-8486372	-0.52067	0	0	54
57	Stanbic Bank Kenya Ltd	2016	3.95E+08	82.5	32614035	4905734	0.150418	4905734	21121982	0.232257	0	0	49
58	Standard Chartered Bank	2020	3.44E+08	202.5	69560891	8236773	0.118411	8236773	-4825000	-1.7071	0	0	176
58	Standard Chartered Bank	2019	3.44E+08	194.5	66812806	8099193	0.121222	8099193	-3777000	-2.14435	0	0	143
58	Standard Chartered Bank	2018	3.44E+08	208	71450199	6914098	0.096768	6914098	-2251947	-3.07028	0	0	107
58	Standard Chartered Bank	2017	3.44E+08	189	64923498	9049307	0.139384	9049307	-2143629	-4.22149	0	0	102
58	Standard Chartered Bank	2016	3.44E+08	195	66984562	6342427	0.094685	6342427	27718885	0.228812	0	0	104

