THE RELATIONSHIP BETWEEN FINANCIAL REPORTING QUALITY AND INVESTMENT DECISION MAKING OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

MOHAMED ABDI HASSAN

A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

NOVEMBER, 2021

DECLARATION

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

Signed........................... Date.......14/11/2021...........

Mohamed Abdi Hassan

D63/37540/2020

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

Signed **Date 12/11/2021**

PROF. JOSIAH ADUDA

PROFESSOR OF FINANCE

UNIVERSITY OF NAIROBI

DEDICATION

This work is dedicated to my wonderful dad Abdi Hassan Abdi, and my dear mother Nora Mohamed Ahmed, as well as the rest of my family, for their financial and emotional support.

ACKNOWLEDGEMENT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

CAPEX	Capital Expenditure
CMA	Capital Markets Authority of Kenya
EM	Earnings Management
ETF	Exchange Traded Fund
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
I-REIT	Income Real Estate Investment Trust
KES	Kenya Shillings
NPV	Net Present Value
NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
SMEs	Small and Medium Enterprises

ABSTRACT

The main objective of the study was to establish the effect of financial reporting quality on investment decisions of firms listed at NSE. While earnings management, conservative accounting and accrual quality were the independent variable, firm size was the control variable and investment decision was the dependent variable. The study was guided by agency theory, stakeholder theory, and the signaling effect theory. The study adopted correlational design with quantitative approach targeting 64 listed firms at the Nairobi Securities Exchanged (NSE). Census was used and thus all the listed firms were included in the study. The findings were that earnings management ($p<0.05$), conservative accounting ($p<0.05$), accruals quality ($p<0.05$) and firm size ($p<0.05$) were all significant. The study concludes that financial reporting quality significantly influences investment decision. The study recommends that finance managers of the listed firms in Kenya should try to minimize incidences and practices of earning quality management so as to support informed decision making among investors. The board of directors being the oversight body on behalf of investors should establish strong internal control systems among listed firms that would minimize earnings management thus allowing investors and shareholders to make rationale and informed investment decisions.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The investment decisions made at corporate level have been cited as an unavoidable factor having the influence on the performance of the organization significantly. The asymmetry in information among the managers of the organizations and the investors may cause inefficient investment which is taken as over-investment and under-investment which it is evident from the past literature. This results in agency problems as well (Bushman & Smith 2018; Biddle, Hilary, & Verdi 2009; Lai, Liu, & Wang 2014). There are reportedly many of the research literature in which it is evident that Financial Reporting Quality (FRQ) has positive effect on firms' investment decisions (Biddle, Hilary, & Verdi 2009).

The key theory anchoring this study is the Agency Theory 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 other theory anchoring this study is 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.

Various Companies listed at the Nairobi Securities Exchange (NSE) have been forced to diversify their investments as a result of the dynamism of the firms so as to maintain relevance in the market (Hann, Ozbas & Ogneva, 2010). Portfolios have enabled the companies to find out assets growth, expansion of portfolios and inmprove wealth of shareholders. This has been attained through corporate governance and proper investment

decisions. According to Mutai (2014), the International Financial Reporting Standards (IFRS) adoption of companies stated in Nairobi Securities Exchange 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 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. The current study endeavours to establish if FRQ has any impact on investment decisions of firms listed at NSE.

1.1.1 Financial Reporting Quality

There has been a lot of evolution of Financial Reporting (FR) from being viewed as merely recording of financial transactions or the normal activities of bookkeeping. Nowadays, it is considered as an important tool in the management of an organization under the improved principles of corporate governance (Uwuigbe *et al.,* 2017). The high quality FR refers to the generation of financial information that is free of errors either omission, misstatement or biases. As per the agency theory view, Dang (2011) contends that audited financials are a mechanism for monitoring and giving guarantee to the   financial information users. The financial statement of any organization as stated by IFRS ought to have the required qualitative attributes, that include, faithful representation, relevance, timeliness, verifiability, comparability and understandable (Yuri et al., 2011; IASB, 2015).

FR has always been considered as the critical determinant for investment decision making of shareholders and other stakeholders of a firm in considering returns that has been made. The influence of chief executive officers and board of directors has been affecting the quality FR.

The quality financial reports create the efficiency and effectiveness of resource allocation in the listed companies. The quality of financial statements is very significant to the users who need them for making both investments and economic decisions (Abang'a, 2017). The value of quality of financial reports is considered if they could accurately disclose the true economic natures of the firm in forms of relevance, faithful representation, understandability, comparability, timeliness and verifiability so that they can be simply understood (IASB, 2015). The Financial Reporting Quality (FRQ) will help the investors and other shareholders in making the investment, financing and resource allocation decisions (Dang, 2011).

Quality of FR in this context was in terms of; earnings management, accounting conservatism, and accruals quality. Earnings management can entail corporate managers increasing their prevailing earnings at the cost of the economic values of the organization. Thus, so as to attain a particular target of earnings, managers can delay till end of the year so as to use discretionary accruals to manipulate the earning reported (Oktorina & Hutagaol, 2008). The measure for earnings management utilizing discretionary accruals will be the net income subtracted by net cash flow from operations (IASB, 2015). Accounting conservatism suggests incorporating of financial losses into the bookkeeping wages more timely that of monetary advantages. Its measure is net income scaled by the lagged marketplace price of equity (Khan & Watts, 2009). Accruals quality is the shift in working capital accumulations yearly and its measure is the percentage change in the cumulative values of accounts receivables (Ball & Shivakumar, 2006).

1.1.2 Investment Decisions

Investment decisions, also referred to as Capital Expenditure (CAPEX) refers to resources utilized by a company to purchase or upgrade tangible assets including machinery, buildings or execute new projects (McConnell & Muscarella, 1985). Griner and Gordon (1995) defined

CAPEX as the funds utilized by management to purchase property, plant, and machinery. It refers to financial resources employed by a firm to obtain or renovate physical assets namely; property, plant and equipment. It is mostly anticipated that capital expenditures will produce future benefits that will be in use for more than financial year (McConnell, & Muscarella 1985). According to Kochhar and Hitt (1998), CAPEX is the acquiring of capital assets or fixed assets, which are in the form of manufacturing plants and machinery that is projected to be in use over a long period.

A firm needs to have strategic assets, which are maintained in order to have future benefits. These assets are also a condition for maintaining sustainable competitive advantage (Kochhar & Hitt, 1998). The financial performance of a firm usually emanates from investing in project which have positive NPV. These projects are recognised to be value enhancing as they fetch a yield that is more than the shareholders are cost of capital. CAPEX comprise of the deployment of enormous sums of money, and it affects the business over a lengthy period. Additionally, the resources to acquire a fixed asset must be paid out instantly, while the returns or benefits accumulate over a long period. Since the benefits are centred on future prospects and the capability to predict the future is imperfect, substantial effort ought to be made to appraise investment options as comprehensively as possible (Boehlje, & Ehmke, 1986).

CAPEX is typically available in the cash flow statement under investing activities. Companies listed commonly show their CAPEX for a particular period in the annual year reports, which permits investors to identify how the business is utilising or investing their funds in the quest for long-term growth. Nearly all firms have CAPEX on yearly basis as they improve equipment and facilities often (Quandhali, Khan & Rizvi, 2016). Capex is calculated

4

as; Plant property and Equipment (PPE) of the current period subtracted by the PPE of the prior period added to the depreciation of the current period (Griner & Gordon, 1995).

1.1.3 Financial Reporting Quality and Investment Decisions

While deciding whether to make investments in physical assets or investments made in capital market, companies use financial reporting. Firms are to invest in investments having positive Net Present Value (NPV) and leave the investment decisions having negative NPV in order to enjoy better growth and development of the business. Thus, enhanced financial reporting quality is needed to support informed investment decisions. This study also focuses on finding the relation between financial reporting quality and investment efficiency.

Verdi (2006) investigated the relationship between financial reporting quality and efficiency of investment. The investigation was of the view that increased financial reporting quality can put significant impact on the investment efficiency of the firms. The FASB (Financial Reporting Standards Board), financial accounting results shown in the statements concept No.1 (1978) describes the protection of investors while making decisions for investment in the firms. Here, the rights of the potential investors are addressed in agency theory in which asymmetric information is held as one of the major causes of over/under investment, i.e. investment inefficiency. The studies made in the past showed that if there is adverse selection and asymmetric reporting among the managers, investors and shareholders, the efficiency of investment could be affected. Thus, FRQ is directly proportional to investment efficiency, that is, high-quality financial reporting leads towards enhanced efficiency of investment (Biddle & Hilary, 2006; Verdi, 2006).

Myers and Majluf (1984) stated that when managers are align with the shareholders of the firm, and if the firm requires funds to invest in a project, the concerned managers possibly resist to arrange the funds might be available at discounted price even if proposed investment

seems beneficial in terms of investment opportunity. Thus, it can be taken as obvious that if FRQ cause to decrease adverse selection, it can cause enhanced efficiency in firm's investments by exercising the down trends in the external cost of financing.

1.1.4 Nairobi Securities Exchange

In the year 1954, NSE was founded by stockbrokers as association of voluntary and was given the responsibilities to regulate the trading activities and also develop the securities market. It has developed to be one of the leading African Exchanges and more even it acts as an iconic trading facility not only to local investors but also international investors who aims of gaining entrance to the economic growth of Kenya and Africa at large. It deals with both variable and fixed income securities and has 64 listed companies.

Various Companies listed at the Nairobi Securities Exchange (NSE) have been forced to diversify their investments as a result of the dynamism of the firms so as to maintain relevance in the market (Hann, Ozbas & Ogneva, 2010). Portfolios have enabled the companies to find out assets growth, expansion of portfolios and inmprove wealth of shareholders. This has been attained through corporate governance and proper investment decisions. According to Mutai (2014), the International Financial Reporting Standards (IFRS) adoption of companies stated in Nairobi Securities Exchange 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 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. The current study endeavours to establish if FRQ has any impact on investment decisions of firms listed at NSE.

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 worth of companies listed at the Nairobi Securities Exchange. One of the most important statements required in making decision on investment, especially in private sectors, is the financial statements. These statements must be relevant and of high quality. Quality financial statement relating to a business organization is important to users within and without the organization to enhance informed investment decision making. This is to avoid financial reporting fraud and scandals that might hinder effective and informed investment decision making by investors and other users of these financial statement (Amahalu Abiahu, Obi & Nweze, 2018; McNicholas & Stubben, 2019; Paananen & Lin, 2019).

Financial reports are of importance to an organization since it gives the projection of how the company will perform; a positive financial 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, a concern has been raised about the listed firms pertaining their governance as these firms have been portrayed to be having many cases of mismanagement, corruption, bailouts by government or subsidizing on collapsing firms such as Uchumi, Mumias Sugar and Kenya Airways. The companies have experienced fraud and other cases associated with corruption among other 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 on financial restructuring. Though, practitioners and managers continue to lack appropriate guidance for attainment of optimal financing decisions (Kibet, 2015). This circumstance has resulted to loss of both the confidence and wealth of investors in the stock market. Quality FR still is yet to be addressed resulting to collapsing again of firms for example Mumias Sugar, Kenya Airways, Uchumi, National Bank and Eveready (KNBS, 2017).

Numerous researches have been carried out to investigate the phenomenon of the association amongst quality FR together with investment decisions. Globally, Ferrero (2014) did an investigation on the effect of quality FR on firm value. Quality reporting was operationalized as earnings quality, conservatism, and accruals quality while corporate value was indicated by the market to book ratio. The study established a positive relationship which was significant between FRQ and corporate value. This study presents a conceptual gap because it related FRQ to firm value and not investment decisions. Morris, Susilowati and Gray (2012)

conducted an Asian comparative analysis on the case for and against quality FR and firm value. 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. The study presents a conceptual gap because it related FRQ to firm value and not investment decisions.

Locally, Naghshbandi and Ombati (2014) investigated issues and challenges affecting FRQ in Kenya. They argued that their adoption has been inhibited by skill and competence levels in developing economies, perception from developing countries that are European or politically mitigated, different levels of compliance and regulatory policies, cultural and structural differences and ownership structures of various business enterprises. Although, these challenges may lead to slowness in adoption of IFRS the anticipated benefits in regard to voluntary and mandatory disclosure triggers higher acceptance levels. This study presents a conceptual gap because it endeavoured to seek the challenges facing FR but not addressing the effect of quality FR on investment decisions. King'wara (2015) investigated the influence of FRQ on worth. In the study, a selected number of listed companies from 1994 to 2003 was drawn in exclusion of both banking and insurance companies. A comparative analysis was carried out before and after implementation of IFRS and the findings revealed that FRQ had a significant influence on value. However, companies which were listed in the banking and insurance sector were excluded. The study presents a conceptual gap because it related FRQ to firm value and not investment decisions.

The studies reviewed exhibit that they have not been conducted on the impact of FRQ on investment decisions. Adequate research studies were also found in which firms' market value and firm's performance was tested with Financial Reporting Quality. Accordingly, there was a need for the current study. Consequently, this research sought to fill the research

gaps and answer the research question: what is the influence of financial reporting quality on the investment decisions of companies listed at the Nairobi Securities Exchange?

1.3 Research Objective

To establish the effect of financial reporting quality on investment decisions of firms listed at NSE.

1.4 Value of the Study

The research will be beneficial to many shareholders ranging from scholars, researchers, government and its agencies, manager of listed firms, lawmakers, stock market official and many others. Additionally, this study will contribute much to the current knowledge body and aid in predicting investment decisions basing on FRQ. More so, other scholar may use this study in future to reference their work. The study will also contribute in enlarging the breadth as well as quality of the research works and publications. Findings from the study will be of assistance in furtherance of the knowledge base on the study parameters

The study will be of great value in policy formulation. The financial markets regulator, CMA will find the study discerning as the relationship between FRQ and investment decisions will be studied and will give insight on how to stimulate the performance of listed companies. The CMA can put in place policy drafts and guidelines aiming to boost capital markets. With the helpful insight by this study, 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 investment decisions 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

The chapter is made up of available evidence related to the study. It entails theories guiding the research. It also includes a description of determinants of investment decisions and literature interrelated to the factors. It narrows down to financial reporting capital affecting the investment decisions of firms enlisted at the NSE. This chapter also illustrates the conceptual framework, and also contains the summary and information gaps recognized.

2.2 Theoretical Review

A theory is created to identify, elaborate, and comprehend certain phenomenon and in other instances, to challenge the present knowledge on this within the brackets of present bounding assumptions. A theory entails many concepts brought together and existing approaches used in a particular study. The study encompasses the; agency theory, stakeholder theory, and the signaling effect theory.

2.2.1 Agency Theory

The theory was initially explored by Alchian and Demsetz (1972) and adavanced 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. Moreover, in different circumstances it may remunerate the agents to spend financial funds to ensure they would not tolarate any decisions which would cause the devastating effects on the principals or to make sure that the principals would be compensated if the agents take such harmful actions. But, it is generally impossible for the owners or the executive staff at zero cost to ensure that the management will make optimal decisions from the viewpoint of the shareholders. Moldoveanu and Martin (2001) also observe that agency problems may exist in two unique ways such as the failure of managerial competence and the failure of managerial integrity. 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. On the other hand, failure of managerial integrity refers to wishful conduct on the part of agents that mitigates the value of the assets of firm. This problem arises from moral risks which display the traditional incentive problem.

The theory links to this study because FRQ aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent and comparable. The main challenge that arises from the agency conflict is how to induce the

agent to act in the best interests of the principal. Jensen and Meckling (1976) suggest that this can be achieved through incentive schemes for managers which reward them financially for maximizing shareholder interests. Such schemes typically include plans whereby senior executives obtain shares, perhaps at a reduced price, thus aligning financial interests of executives with those of shareholders. Thus, the managers are able to make prudent investment decisions.

2.2.2 Stakeholder Theory

Freeman (1984) empirically developed this stakeholder theory. 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).

According to Freeman (2010), the stakeholder theory endeavours to take care of the principle, who actually matters. 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 objectives 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 FRQ aims at reducing barriers to trading across borders of securities by making sure that the company accounts are easily reliable, transparent, and comparable. The theory focuses on how executives attempt to maximize stakeholders' value and their contractual obligations to the owners of firm. Thus, the managers are able to make prudent investment decisions .The managers also incorporate the interest of the other stakeholders when making investment decisions.

2.2.3 Signaling Effect Theory

Signalling theory advanced 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 and actually had a scandal, a product recall or accounting errors, earning would be adversely affected and the value of the firm could decline drastically. A firm would also make prudent investment decisions in order to signal future increment in the firm's value.

2.3 Determinants of Investment Decisions

This part will elaborate critical determinants of capital expenditure. The determinants outlined are; financial reporting quality cash flows, dividend policy, firm size, leverage, and liquidity.

2.3.1 Financial Reporting Quality

The high quality FR refers to the generation of financial information that is free of errors either omission, misstatement or biases. As per the agency theory view, Dang (2011) contends that audited financials are a mechanism for monitoring and giving guarantee to the

financial information users. The financial statement of any organization as stated by IFRS ought to have the required qualitative attributes, that include, faithful representation, relevance, timeliness, verifiability, comparability and understandable (Yuri et al., 2011; IASB, 2015).

While deciding whether to make investments in physical assets or investments made in capital market, companies use financial reporting. Firms are to invest in investments having positive Net Present Value (NPV) and leave the investment decisions having negative NPV in order to enjoy better growth and development of the business. Thus, enhanced financial reporting quality is needed to support informed decisions.

2.3.2 Cash Flow

This is movement of cash in and out of firm (Dechow & Ge, 2006). It implies that the addition or subtraction in the amount funds in any business. Also means amount of funds consumed within a critical time. Free cash flow refers to cash flow created by any operations after tax, without considering a company's debt level, which is, without lessening a company's interest expenses (Richardson, 2006). Capital cash flow is hence the cash that is available for debt holders (Jensen, 2006).

Vogt (1997) states that greater cash flows a company has, the greater the profitability of capital expenditure projects and that cash flows impact on capital expenditure rises as firm size declines and when there is a reduction in ownership. The firms' value is maximized through investment, which motivates the company's shareholders. This reduces the agency problem since the firm will invest in long-term investments that improve the firm's value as opposed to issuing dividends to shareholders since investing in positive NPV projects will increase the shareholders' wealth in future.

2.3.3 Dividend Policy

Dividend policy refers to financial strategies pertaining to issuing cash dividend in the current period or paying an improved dividend at a future stage. Companies often dedicate their cash resources to multiply in viable investments and pay out dividends from the balance (Jensen, 1986). Interest and dividend payment reduces the FCF meant for the management of the business and this little is left for investment in profitable projects. From the company's perspective, the money acquired through firm operations greatly determines the dividend payout level of the firm as firms with positive operating cash flows easily pay dividends whereas those who's operating cash flows are negative experience challenges in dividend payments (Lintner, 1956).

Modern studies have revealed that dividend, project investments are interdependent or interact, in that case proposing that dividend policy decision, and proper decisions are at the same level (Abor, & Bopkin, 2010). This suggestion is more reinforced by the study done by Lintner (1956), underlining the significance of dividend payout. The dividend payout ratio measures the percentage of funds given as dividend to total net income of the firm. The study will use this formula in calculation dividend payout ratio, as it is the most reasonable method as it depicts the percentage given out to the shareholders.

2.3.4 Firm Size

This refers to the scale of a business's operations (Ehikioya, 2009). There are mainly three company size measures, including total assets and market sales. According to Guest (2008), the named measures are common in empirical corporate fiscal study. Some characteristics of a firm, for instance, leverage, and firm size are related with firm value (Dogan, 2013). Amongst other attributes of a firm, Firm size is the one that is constantly perceived as related to firm value. Large firms are normally considered to have the capability of exploiting both the economies of scale and scope, ability to diversify and more so being greatly formalized in

aspect of procedures. Because big firms have a larger capital resource compared to small firms, they can always grasp any profitable opportunity that may arise.

The Resource-Based View holds that large firms are endowed with more resources since their accessibility to funds in the financial market is a bit easier (Myers & Turnbull, 1977). Myers and Turnbull (1977) further state that different levels and age of the company both greatly influence a company's investment decisions. According to Lawrence (2004), the production capacity of a firm rises in proportion to increase in the size of the business leading to greater returns accrued from more investments. He established a proportion link between company size and performance. The link is however considered as insignificant in real estate, property, and construction industry due to weak associations.

2.3.5 Leverage

Leverage refers to attaching of funds for which a company pay a certain cost of greater return (Brealey, Myers & Allen, 2017). This refers to the ratio of net returns on equity of shareholders and the net rate on capitalisation (Dagbladet, 2006). The word 'leverage', is applied in finance. Leverage comes as a result of using capital from loans as a source of funding when engaging in any investments to diversify the firm's asset base. Leverage forms a strategy of using borrowed capital, particularly, the use of financial instruments, to improve the potential return on any investment. Leverage could also mean amount of debt applied by a company in financing assets (Vazquez & Federico, 2015).

Firms use financial leverage as a corporate financing means to raise both short term and long term funds. Financial leverage negatively influences a firm's investments decisions. Zwiebel (1996) and Myers (1977) study on financial leverage and the investment rate of a firm established a negative connection among financial leverage and the investment rate of the company. Highly geared firms have smaller reserves and will be constrained in borrowing to

finance investments. Cantor (1990) found out that a firm with huge cash flows can accumulate huge reserves with ease which could be used to invest in a less profitable year. Highly leveraged firm's investments are delicate to cash flow, which is an indication of project variability as time goes. The association between the firm's debt and its capital expenditure decisions was examined by various authors including Myers (1977); Titman and Wessel (1988), Stulz (1990), Jensen (1986), Servaes (1995), Lang, Stulz and Ofek (1996), Aivazian et al., (2005), Ahn et al. (2006), Firth and Wong (2008), and Lee et al. (2008). All the studies show a negative performance among the rate of investment and financial leverage for a company with lesser growth chance in first world countries.

2.3.6 Liquidity

Liquidity means ability of a firm meets the needed obligations in an efficient manner. Liquidity is how easily a firm's assets can be easily converted to cash. This entails the capability of a company through its cash can be in a position to meet its current liabilities (Lawrence, 2004).

Excessive liquidity creates to creating of idle resources, which do not come up with any profits for the company unless employed to finance capital expenditure while reduced levels of liquidity damage goodwill, lower credit ratings that could also cause liquidation of company's assets. Every firm endeavour to maximize value through liquidity However, greater value in place of liquidity would create greater challenges to the company. Finally, a company should properly manage liquidity so as to create greater value (Vieira, 2010).

2.4 Empirical Studies

Several studies both locally and globally talk about the relationship among financial reporting quality and investment decisions. Nguyena & Nguyena (2020) investigated the factors affecting a firms' capital expenditure. Data were collected from the firms listed on Ho Chi Minh Stock Exchange (HOSE) over the period of nine years, from 2010 to 2018. The study

included the sample of 192 non-financial listed companies. Three statistical approaches were employed to address econometrics issues and to improve the accuracy of the regression coefficients: Random Effects Model (REM), Fixed Effects Model (FEM) and Generalized Method of Moments (GMM). The study findings revealed that free cash flows and firm size influenced positively capital expenditure. By contrast, other factors such as dividend, interest expenses, depreciation, and working capital had negative effects on capital expenditure. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

Shenoy & (2019) investigated the market reaction to capital expenditure announcements in the New York Stock Exchange (NYSE), the backdrop being the Jensen's (1986) free cash flow hypothesis. The study's sample comprised of 351 firm announcements in the NYSE, which entailed, 255 announcements of capital expenditures increases and 96 announcements of capital expenditure decreases. The study findings were congruent to McConnell and Muscarella's (1985) original findings suggesting that announcement-period returns follow announced changes in capital spending. When the study estimated regressions similar to Lang Stulz and Walkling (1991), the study established evidence that there is a weak relationship between free cash-flow and capital expenditure. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

Ferrero (2014) carried out global literature on the nexus between firm value and FRQ. Quality reporting was operationalized as earnings quality, conservatism and accruals quality while firm value was indicated by the market to book ratio. The study adopted panel study design and a sample size of 1960 non- momentary listed companies in 25 countries in 2002 to 2008 were considered. Regression analysis through Generalised methods Moments (GMM) showed a positive relationship, which was significant between FRQ and firm value. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

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. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

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. The findings of the research showed a negative and not noteworthy association amongst 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. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

Ardianto, Harymawan, Paramitasari and Nasih (2020) analyzed FRQ and its link with efficiency of investments. The study was conducted in the context of Indonesia among listed

entities. A total of 994 observations were included in the analysis of this study. The inquiry showed that an increase in FRQ has a significant implication on the level of efficiency of investment. However, this inquiry was conducted in Indonesian context and not in Kenya.

Lin, Wang and Pan (2016) conducted an inquiry on FRQ and decisions regarding investment among family owned enterprises. In particular, the focus of the study was on family and non-family owned entities. Underpinned by the agency theory, the inquiry showed that FRQ has significant link on investment decisions of both non family and family owned entities. However, this inquiry was conducted in Taiwanese context and not in Kenya.

Iqbal and Khan (2020) examined FRQ and its implication on efficiency of investment with a focus on non-financial entities. The embraced design was explanatory quantitative research covering the horizon from 2005 all through to 2018. The inquiry did share that entities which have greater values of FRQ are characterised by high level of efficiency in their investment decisions undertaken. It was further shown that greater FRQ increases the level of confidence and trust among shareholders who may have invested in an entity.

Angela and Aryancana (2017) conducted a study whose focus was on FRQ and its implication on investments and financing decisions. The study covered entities in Indonesia. In total, 15 firms were covered in the study. The finding noted by the study was that FRQ has positive interaction with investment decisions. In particular, the inquiry did share that FRQ is negatively linked with investment for firms that are characterised by under-investment tendency.

Zhu, Mustafa Kamal, Gao, Ayub Ahmed, Asadullah and Donepudi (2021) studied financial reporting information and its excellence as far as productivity of investment is concerned. The horizon covered by the study was 2016 all through to 2019. The context of the inquiry was on firms operating on Dhaka Stock Exchange. It was noted that financial information

reporting quality has a direct and significant interplay with investments. The gap created by this inquiry is that it was conducted in the context of Bangladesh and not in Kenyan context.

On the regional front, an examination on the determinants of firm value in Africa was carried out by Owolabi and Iyoha (2012). 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. Analysis of data was done using descriptive statistics and on average respondents there were remarkable success since the adoption of quality financial reporting due to 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. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

Bamidele, Ibrahim and Omole (2018) examined FRQ and its implication on decisions regarding investments in Nigerian context. Information was obtained from auxiliary sources covering the time horizon from 2009 all through to 2016. The specific focus of the study was on Zenith Bank Plc. The inquiry showed that FRQ significantly enhances the decisions regarding investment. The gap created by this inquiry is that it was conducted in the Nigerian context and not in Kenya.

Locally, Naghshbandi and Ombati (2014) investigated issues and challenges affecting FRQ in Kenya. They argued that their adoption has been inhibited by skill and competence levels in developing economies, perception from developing countries that are European or politically mitigated, different levels of compliance and regulatory policies, cultural and

structural differences and ownership structures of various business enterprises. Although, these challenges may lead to slowness in adoption of IFRS the anticipated benefits in regard to voluntary and mandatory disclosure triggers higher acceptance levels. This study presents a conceptual gap because it endeavoured to seek the challenges facing FR but not addressing the effect of quality FR on firm value. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

King'wara (2015) investigated the effect of FRQ on firm value. In the study a sample of listed companies from 1994 to 2003 was drawn in exclusion of both banking and insurance companies. A comparative analysis was carried out before and after implementation of IFRS and the findings showed that FRQ had a significant effect on value of the firm. However, companies which were listed in the banking and insurance sector were excluded. This studies present a contextual gap because not all firms named at the NSE were used as the populace in the research and thus the findings can vary if the excluded sectors are included. The study presents a conceptual gap because it did not relate FRQ to investment decisions.

Ouma (2017) analyzed the link between quality of financial reporting and ability of listed entities in Kenya to perform in financial terms. The key concerns that were covered regarding quality of financial reporting include timeliness, verifiability, comparability and understandability. It was noted that the primary objective of financial reporting is the provision of relevant information to support decision making with regard to investments. It further emerged that complying with financial reporting quality enhances financial performance of an entity,

Lekamario (2017) did an analysis of the factors that inform quality of financial reporting with specific focus on Kenya's County governments. The specific focus of the inquiry was on expertise of the senior management, capacity of staff and internal audit quality. Accounting

officers from 47 counties in Kenya were targeted. All these constructs (expertise of the senior management, capacity of staff and internal audit quality) were seen to have significant contribution towards financial reporting quality in Counties in Kenya.

2.5 Summary of Research Gaps

The studies reviewed exhibit that they have not been conducted on the impact of FRQ on investment decisions. Adequate research studies were also found in which firms' market value and firm's performance was tested with Financial Reporting Quality. Accordingly, there was a need for the current study. Consequently, this research sought to fill the conceptual research gaps unraveled. Table 2.1 provides a summary of the literature and the gaps.

Table 2.1: Summary of Research Gaps

Author & Year	Study	Key Finding	Knowledge Gap	Focus of present study
Zhu et al. (2021)	financial reporting information and its excellence as far as productivity of investment is concerned	financial information reporting quality has a direct and significant interplay with investments	was conducted in the context of Bangladesh	The present study was done in Kenya
Iqbal and Khan (2020)	FRQ and its implication on efficiency of investment with a focus on non-financial entities	greater FRQ increases the level of confidence and trust among shareholders who may have invested in an entity	This study covered non-financial firms	The present study covered both financial and non-financial entities
Ardianto et al. (2020)	analyzed FRQ and its link with efficiency of investment	an increase in FRQ has a significant implication on the level of efficiency of investment.	The study was conducted in the context of Indonesia among listed entities	The present study was done in Kenya
Lekamario (2017)	factors that inform quality of financial	expertise of the senior management, capacity of staff and internal audit	This study was conducted	The present study focused on

	reporting with specific focus on Kenya's County governments	quality were seen to have significant contribution towards financial reporting quality in Counties in Kenya	among 47 counties in Kenya	listed firms in Kenyan context
Naghshandi and Ombati (2014)	Issues and challenges affecting FRQ in Kenya	FRQ adoption has been inhibited by skill and competence levels in developing economies, perception from developing countries that are European or politically mitigated	FRQ was used as the dependent variable	FRQ was used as the independent variable in the present study

2.6 Conceptual Framework

Conceptual framework consists of dependent and explained variables. The independent variables in this research were the measures of FRQ, which include; earnings management, accounting conservatism, and accruals quality. The dependent variable was investment decisions, while firm size was the study's control variable.

Independent Variables

Earnings Management
- Net income/cash flows from operations)

Accounting Conservatism
- (Net Income/Market Value of Equity$_{t-1}$)

Accruals Quality
- Working Capital Accruals

Firm Size (Control Variable)
- Average Book Value

Dependent Variable

Investment Decisions
- Net change in the Capital Expenditure
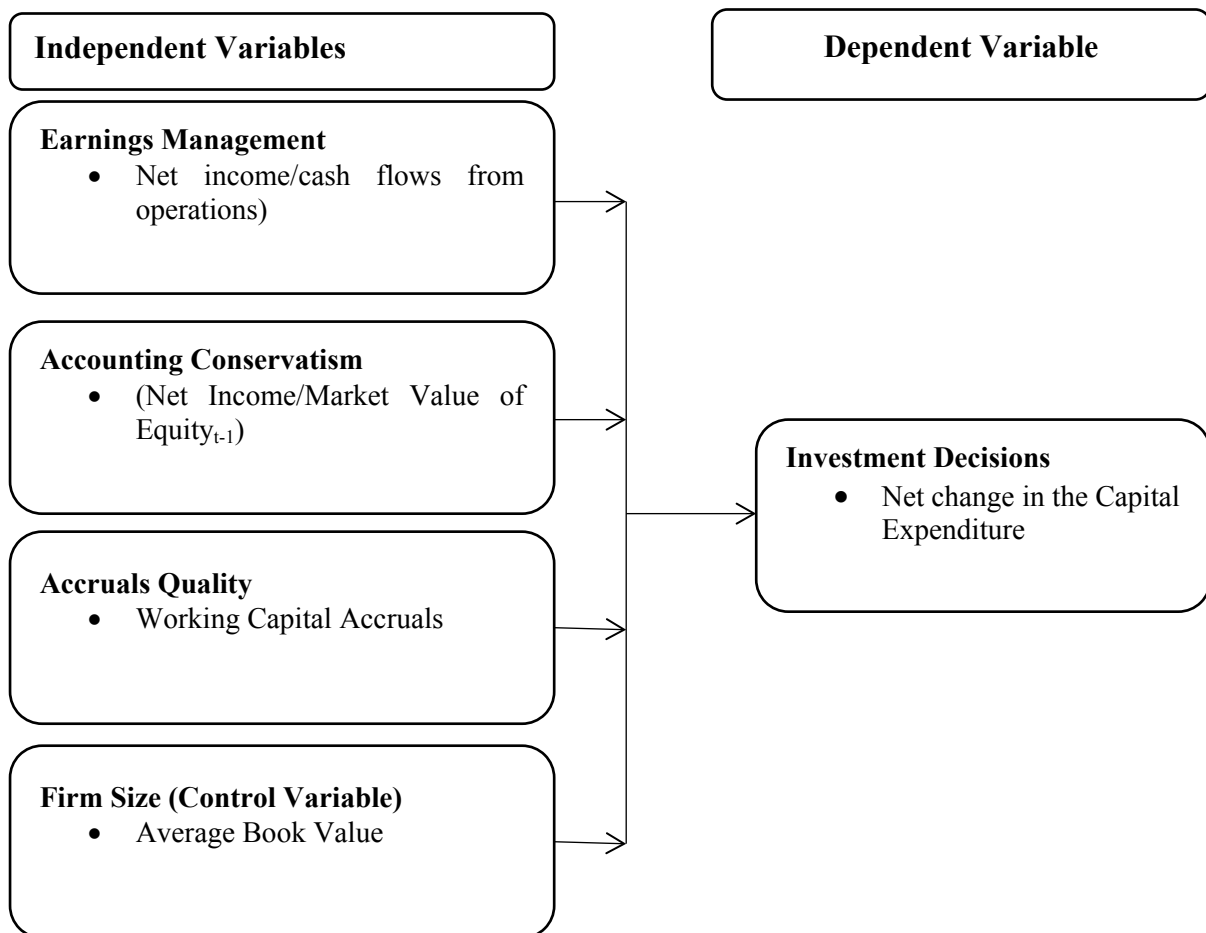
Figure 2.1: Conceptual Framework

Figure 2.1 shows that the study was guided by three variables; the independent being FRQ, the control being size and the dependent being investment decisions. As the main independent variable, FRQ is operationalized into earnings management, accounting conservatism and accruals quality. Ratios as well as continuous scales are adopted to standardize these constructs.

From the conceptual framework and the reviewed literature, the following null hypotheses can be adopted:

H_{01}: Earnings management has no significant effect on investment decisions of firms listed at NSE.

H_{02}: Accounting conservatism has no significant effect on investment decisions of firms listed at NSE.

H_{03}: Accruals quality has no significant effect on investment decisions of firms listed at NSE.

H_{04}: Firm size has no significant controlling effect on investment decisions of firms listed at NSE.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research design, explaining the study design taken into consideration, population, and data collected to elaborate procedure for getting data, and data analysis techniques to be utilized.

3.2 Research Design

Creswell (2015), 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. 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 in order to ascertain the trends that exist therein. The study chose the descriptive research design since it could be used to describe different phenomenon and their characteristics. In addition, the data sets produced through the descriptive method help to summarize and support assertion of facts. The study was a formal study since it includes relevant theories and literature to provide it. This design involved various uses like means of analysis, the variables of the study, and data gathering techniques.

3.3 Target Population

The study employed all the 64 firms listed in NSE as the study population. This is because data from listed companies is readily available from their published financial statements and annual reports. This research sample was selected based on the criteria that the companies should have been listed before the study period, should not have been suspended from the Exchange for more than 1 year or delisted within the study period. This is to ensure that dataset for the entire study period is available.

3.4 Data Collection

This research implemented secondary information gathered from Nairobi Securities Exchange. The period of analysis was annual. Data on; total assets, cash-flows from operations, market value of equity, accounts receivable together with inventory, accounts payable, tax payable, and capital expenditure was obtained from respective firm's financial reports at the end of reporting period. The study gathered panel data, which was annual data for a period of five years, from 2016 to 2020.

3.5 Data Analysis

In order to simplify the analysis, interpret and comprehend the data collected, it was arranged, tabulated, and simplified. Upon organizing the data, the panel data was analyzed through aid of statistical analysis software known as STATA Version 14. Multiple linear regression and correlation analysis was done. Correlation analysis was used to show whether and how strongly changes in FRQ and firm size are related to investment decisions while regression analysis was employed to determine the association amongst FRQ and firm size with investment decisions. The quantitative reports obtained from the investigation was presented using tabulations.

The research applied a significance level of 95%. The findings were set to be critical at the 0.05 level, which shows the critical value should be less than 0.05. This was tested using significance at 95% significance level. The T-test was done for influencing the significance of individual co-efficient while the F-test was executed in establishing the significance.

3.5.1 The Model of Analysis

The research objectives was accomplished by undertaking multiple linear regression analysis, which examined whether the independent variables have any impact on capital expenditure.

The statistical tests were undertaken at a significance level of 95%, which implies that the margin of error is up to 5%. The below model was applied;

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

Where:

$Y_{i(t+1)}$ = Investment Decisions

α = Constant

Where:

$\beta_{1-}\beta_4$ = Beta coefficients

X_1 = Earnings Management Measured by Discretionary Accruals

X_2 = Conservative Accounting Measured by Net Income Scaled by the Lagged Market Value of Equity

X_3 = Accruals Quality Measured by change in Working Capital Accruals from Year to Year

X_4 = Firm Size

ϵ = error term

Table 3.1: Operationalization of the Study Variables

Variable	Measurement
Capital Expenditure	Net change in capital expenditure (Griner & Gordon, 1995).
Earnings Management	Considered in terms of discretionary accruals which was measured by log (net income/cash flows from operations (Oktorina & Hutagaol, 2008).
Conservative Accounting	(NI_t/MV_{t-1}), is the net income scaled by the lagged market value of equity (Khan & Watts, 2009).
Accruals Quality	($\Delta WC = \Delta A/Cs\_Rec + \Delta Inv - \Delta A/Cs\_Pay - \Delta Tax\_Pay - \Delta other\_Current\_Assets$), is the changes in working capital accruals from year to year (Ball & Shivakumar, 2006).
Firm Size	Natural logarithm of average book value of entire assets of the firm (Dogan, 2013).

3.6 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 optional assumption; 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 assumptions are paramount when undertaking regression and violation of any of them would me 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. Shapiro-Francia test was applied to test for normality, this is appropriate to test distributions of Gaussian nature that have a specified variance and mean. Linearity implies a direct proportional link between the dependent and independent variable, which follows a corresponding variance in the dependent variable (Gall et al., 2006). To test for linearity, homoscedasticy was determined and was established through the the Breusch-Pagan Cook-Weisberg Test for Homoscedacity.

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

Hausman specification test was done in order to establish whether the applied variables have fixed effect overtime or have changing and random effect over time. Variables have a random effect was the null hypothesis while variable have a fixed effect was the alternate hypothesis. The null hypothesis would therefore be rejected if the value of the meaning is less than α (0.05) and if the alpha value exceed 0.05 it led to rejection of the null hypothesis.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter details the findings of analysis as informed by the data that was gathered. The study relied on information from auxiliary sources and panel data methods were adopted. In carrying panel data analysis, several steps were followed beginning with Hausmann Test to establish whether to use Random Effect (RE) or FE (model). Once an appropriate model has been selected between RE and FE, Breusch Pagan Langrage Multiplier test was conducted to decide between RE and Pooled OLS. The resultant values were appropriately interpreted.

4.2 Descriptive Statistics

Descriptive statistics covering means and standard deviations were generated and summarized as shown in Table 4.1.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
LNInvestment	290	1.918018	.1863428	1.176511	2.188649
LNEarnings	289	.0333524	1.750157	-5.423363	7.363893
LNConserva~g	290	2.051121	1.747817	-8.101635	8.244726
LNAccQ	290	1.141329	3.433423	-9.137557	8.295946
LNFirmSize	290	1.950756	.1592312	1.338201	2.19205

Table 4.1 shows that the mean of investment decision was 1.918018, earnings management had a mean 0.03335, conservative accounting had 2.0511, and accruals quality had 1.1413 and firm size had 1.9507. In terms of standard deviations, accruals quality had the largest figure of 3.433 while firm size had the least value at .15923. This means that the variation in firm size was not as much as that of accruals quality across the panel period based on the number of firms that were involved in the study.

4.3 Diagnostic Tests

Diagnostic tests were conducted to validate the assumptions of regression analysis. The specific diagnostic tests that were conducted include normality test, multicollinearity test and

Heteroscedasticity. The results were determined and presented as shown in subsequent sections.

4.3.1 Normality Tests with Shapiro Francia

Normality test was conducted to determine whether the data used in the study was normally distributed. In testing for normality, the study relied on Shapiro Francia with the findings as shown in Table 4.2.

Table 4.2: Shapiro Francia test for Normality

```
  Variable |    Obs        W'         V'         z      Prob>z
-----------+-------------------------------------------------
Investment~g |   290     0.96758      7.267     4.201     0.00001
EarningsMa~t |   289     0.13020    194.363    11.159     0.00001
Conservati~g |   290     0.03070    217.245    11.398     0.00001
AccrualsQu~y |   290     0.11726    197.845    11.200     0.00001
       Accq2 |   290     0.11726    197.845    11.200     0.00001
```

From Table 4.2, the probability values for investment decision, earnings, conservative accounting and accruals quality and firm size were all less than 0.05. This is an indication that the data used in the study was normally distributed. Being normally distributed, it follows that the data was suitable for panel data analysis with the findings as detailed in the subsequent sections.

4.3.2 Multicollinearity Test

The values of the Variance of Inflation Factors (VIF) were computed to establish presence of multicollinearity in the data. The findings are as shown in Table 4.3.

Table 4.3: Multicollinearity Test

```
    Variable |     VIF       1/VIF
-------------+----------------------
    FirmSize |    1.03     0.970819
 Earningsmgt2 |    1.03     0.972529
        Accq2 |    1.01     0.989949
Conservati~g |    1.00     0.999697
-------------+----------------------
    Mean VIF |    1.02
```

35

The results in Table 4.3 indicate the mean VIF value of 1.02. All the VIF values for the respective variables of the study were all within the range of 1-10. This is an indication that there was no multicollinearity in the data and thus it was suitable for panel data analysis. In other words, the multicollinearity assumption of the regression analysis was not violated.

4.3.3. Heteroscedasticity

Breusch and Pagan test was conducted to determine presence of Heteroscedasticity. The results are summarized as under Table 4.4.

Table 4.4: Heteroscedasticity

```
Test:   Var(u) = 0
                      chibar2(01) =   235.34
                  Prob > chibar2 =   0.2345
```

The test involves the following hypotheses:

H_0: Homoscedasticity is present

H_1: Heteroscedasticity is present

The probability value from Table 4.4 is 0.2345 (p>0.05). Thus, the study fails to reject the null hypothesis and infers presence of Homoscedasticity. Thus, there is no Heteroscedasticity in the data hence the data was suitable for conducting panel data regression analysis.

4.4 Correlation Results

Correlation analysis was conducted to determine the strength of relationship between the study variables. The findings were established and summarized as indicated in Table 4.5.

Table 4.5: Correlation Results

```
            | Invest~g Earnin~t Conser~g Accrua~y    Accq2
------------+-------------------------------------------------
Investment~g |   1.0000
EarningsMa~t |   0.1524    1.0000
Conservati~g |  -0.0092   -0.0046   1.0000
AccrualsQu~y |   0.0738    0.0709  -0.0067   1.0000
       Accq2 |   0.0738    0.0709  -0.0067   1.0000   1.0000
```

The findings in Table 4.5 show that while earnings management (r=.1524), accruals quality (r=.0738) had positive relationship with investment decision making, conservative accounting (r=-0.0092) on the other hand had a negative relationship. This means that countering earning management while boosting accrual quality with less emphasis on conservative accounting may enhance investment decision making among listed firms in Kenya.

4.5 Hausmann Test

Hausmann Test was conducted to determine the relevant model to adopt between fixed effect (FE) and the random effect (RE) model. The Hausman test is conducted under the following hypotheses:

H0: Random effects are independent of explanatory variables.

H1: H0 is not true.

The findings were established and summarized as shown in Table 4.6

Table 4.6: Hausmann Test

```
                    ---- Coefficients ----
                |     (b)          (B)           (b-B)      sqrt(diag(V_b-V_B))
                |      fe           re         Difference          S.E.
----------------+-------------------------------------------------------------
  EarningsMa~t  |    .0000192     .0000183       8.54e-07          .0000109
  Conservati~g  |    .0000171     .0000196      -2.53e-06          4.42e-06
      FirmSize  |    1.062783     1.081263        -.01848          .0087989
         Accq2  |   -.0038228     -.003413      -.0004098          .0003974
----------------------------------------------------------------------------
                        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

            chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                    =          4.80
           Prob>chi2 =      0.3079
```

The p - value = 0.3079. We fail to reject the null hypothesis and conclude that the RE model is desirable. Having found RE as appropriate, we use the Breusch Pagan Langrage Multiplier

37

test random effects (to check for RE). This helps us to decide between RE and Pooled OLS Regression Model. The results are as summarized in Table 4.7.

Table 4.7: Breusch and Pagan Lagrangian multiplier test for random effects

```
InvestmentDecissionMaking[Firm2,t] = Xb + u[Firm2] + e[Firm2,t]

Estimated results:
                 |        Var       sd = sqrt(Var)
        ---------+-----------------------------
        Investm~g |    1.428825        1.195335
                e |     .011646         .1079166
                u |    .0229365          .151448

Test:    Var(u) = 0
                          chibar2(01) =    235.34
                        Prob > chibar2 =    0.0000
```

H0: Variances across groups is zero. In this case, the p - value = 0.001, thus we reject H0. This means the RE model is appropriate. Thus, this study adopted RE model as specified in the subsequent section.

4.5 Random Effect Model Specification

This model is used when there is no correlation between panels and predictors. The error term captures random effects due to panels and the random error.

4.5.1 Model Summary

Table 4.8 is a breakdown of the model summary of the RE model that was adopted in this study.

Table 4.8: Model Summary

```
R-sq:  within  = 0.9559
       between = 0.9809
       overall = 0.9769
```

From Table 4.8, the coefficient of determination R square is given as 0.9769, this means that 97.69% change in investment decisions among listed firms at the NSE is explained by financial reporting quality. Thus, only a very little proportion of variation in investment

decisions of the listed firms in Kenya is explained by other factors apart from financial reporting quality. This means that financial reporting quality plays an important role as far as investment decisions of the listed firms in Kenya is concerned.

4.5.2 Wald chi-square test Wald chi-square test

The Wald chi-square test is used to check for overall model fitness. If $p < 0.05$, then the model is a good fit. Table 4.9 gives the breakdown of the findings.

Table 4.9: Wald chi-square test Wald chi-square test

```
Wald chi2(4)      =    7639.99
Prob > chi2       =     0.0000
```

From Table 4.9, the p-value is given as 0.000 which is less than 0.05. This means that the overall RE model was fit for use to predict the effect of financial reporting quality on investment decisions among listed firms at the NSE.

4.5.3 Beta Coefficients and Significance

The beta coefficients of the RE model were computed and the findings are as shown in Table 4.10.

Table 4.10: Beta Coefficients and Significance

InvestmentDecissionM~g	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
EarningsManagement	.0000183	.0000586	0.31	0.014	-.0000965	.0001331
ConservativeAccounting	.0000196	.0000314	0.63	0.031	-.0000419	.0000811
FirmSize	1.081263	.0124046	87.17	0.000	1.056951	1.105576
Accq2	-.003413	.0027947	-1.22	0.022	-.0088906	.0020645
_cons	-.777988	.0907306	-8.57	0.000	-.9558167	-.6001592
sigma_u	.15144805					
sigma_e	.10791662					
rho	.66324025	(fraction of variance due to u_i)				

From Table 4.10, the following equation is fitted to predict the relationship between financial reporting quality and investment decisions among listed firms in Kenya:

$$Y_{i(t+1)} = -.777988 + .0000183\ X_{1it} + .0000196 X_{2it} - .003413\ X_{3it} + 1.081263\ X_{4it} + \epsilon$$

Where:

$Y_{i(t+1)}$= Investment Decisions

α = Constant

Where:

$\beta_1 - \beta_4$ = Beta coefficients

X_1 = Earnings Management Measured by Discretionary Accruals

X_2 = Conservative Accounting Measured by Net Income Scaled by the Lagged Market Value of Equity

X_3 = Accruals Quality Measured by change in Working Capital Accruals from Year to Year

X_4 = Firm Size

Based on the coefficients, if the p - value of the z - statistic associated with the respective coefficient is less than 0.05, the variable associated with this coefficient has a significant effect (either positive or negative) on the dependent variable. The effect includes both within - entity and between - entity effects. Thus, earnings management (p<0.05) had significant effect on investment decisions at the NSE. Conservative accounting (p<0.05) had significant effect on investment decisions. Equally, accruals quality (p<0.05) had significant effect on investment decision making among listed firms at the NSE. Thus, it can be inferred that financial reporting quality has significant effect on investment decisions among listed firms at the NSE. Further, firm size (p<0.05) had significant controlling effect on investment decisions among listed firms at the NSE.

4.6 Discussion

Based on correlation results, the study has shown that while earnings management (r=.1524), accruals quality (r=.0738) had positive relationship with investment decision making, conservative accounting (r=-0.0092) on the other hand had a negative relationship. This finding means that when management opt to adopt earning management, the resulting

40

financial reports and information can be impressive but deceptive. Being impressive, many investors and shareholders will be deceived to rely on such information to make investment decision. This explains the positive relationship between earnings management and investment decisions. The same explanation can be used to justify the positive relationship between accruals quality and investment decisions. These findings are consistent with Shima and Yang (2012) who showed a negative and not noteworthy association amongst equity and FRQ while debt, legal and growth had positive and not significant relationship with quality financial reporting.

The negative relationship between conservative accounting and investment decision can be explained in terms of the associated outcomes. As pointed out by Khan and Watts (2009), accounting conservatism suggests incorporating of financial losses into the bookkeeping wages more timely that of monetary advantages. This means that a firm that has successfully embraced conservative accounting will signal better performance to attract investors who will end up making poor investment decisions.

From regression analysis, the study infers that financial reporting quality has significant effect on investment decision. This means that providing quality financial reports will allow investors to make informed investment decisions in the firm. These findings are consistent with Ferrero (2014) who established a positive relationship which was significant between FRQ and corporate value. Morris, Susilowati and Gray (2012 revealed that quality FR improved performance which did not only differ with time but also varied across the countries under investigation. King'wara (2015) revealed that FRQ had a significant influence on value.

In particular, earning management, conservative accounting and accruals quality were significant ($p < 0.05$). In light of the hypotheses that were set out in this study, the study

rejected all of them. Thus, in order to enhance the FRQ, the management of the firm should give emphasis on earnings management, conservative accounting and accruals quality. This also implies that shareholders should rationally pay attention to concerns about earning management, conservative accounting and accruals quality before they invest their money in a listed firm. These findings are supported by Tarus and Omandi (2013) who established that 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.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is set out to detail the findings of the analysis based on the data that was gathered. The summary is provided based on the key findings that were obtained from the analysis. Relevant conclusions and recommendations are also made based on the key findings while pointing out the inherent limitations that were encountered by the inquiry.

5.2 Summary

This study was set out to establish the financial reporting quality on investment decisions of firms listed at NSE. The controlling effect of firm size was factored in while investigating the4 link between these two variables. Thus, while investment decisions formed the dependent variable, financial reporting quality was the independent variable and firm size was the control variable. The study adopted panel data methodology incorporating the aspect of time and firms within the analysis.

In adopting panel data methodology, a number of steps were followed. First, diagnostic tests were conducted on the sample data covering normality, multicollinearity and Heteroscedasticity. The results of these tests were within the established thresholds, implying that the data was suitable for carrying panel data inferential analysis. Later on, correlation analysis was performed whose results whose that while earnings management, accruals quality had positive relationship with investment decision making, conservative accounting on the other hand had a negative relationship.

Hausmann Test was conducted to specify the relevant model that was to be adopted between Fixed Effect and Random Effect. The results favoured the use of RE. After this, Breusch and Pagan Lagrangian multiplier test was performed to choose between use of RE or pooled

43

ordinary least square model. The results from this test still favoured the use of RE as opposed to pooled OLS. Hence, RE was specified as the relevant panel data model to be used in the study having satisfied all the conditions.

The results of the RE model indicated an above 50% coefficient of determination. This was interpreted to mean that financial reporting quality was a good predictor variable alongside firm size as far as investment decision was concerned. At 5%, the study showed that earnings management, conservative accounting and accruals quality were all significant besides the controlling effect of firm size. Thus, the study inferred that financial reporting quality is a critical component of investment decisions among listed firms at the NSE.

5.3 Conclusion

Firms need to provide quality financial reports so that investors can gather relevant and reliable information. This is particularly relevant the listed firms whose financial reports and statements are readily available to the public domain. Most listed firms are required by law to maintain their financial statements with the respective financial markets that they have listed with. The public can easily access this information so as to make informed investment decisions. Thus, any misleading information contained or published in these financial statements of the listed firms can have a ripple effect on the investment decision made by investors who might have relied on such information. Thus, listed firms should always ensure that they report quality information in their financial statements for public consumption so that informed and relevant investment decisions are made by the investors. This assertion is strongly consistent with the agency theory that provides the rationale for firms to ensure that their accounts are comparable, reliable and transparent.

The study has noted that earning management, conservative accounting and accruals quality are significant predictors of investment decisions among listed firms. In particular, the

finance managers of the listed firms should try as much as they could to minimize earnings quality management as they may create misleading accounts that may cost investors who rely on such published information for making of investment decisions. This observation is echoed by the Signaling theory which argues that some actions undertaken by the management of the firm (who are internal parties) may communicate relevant signal to rational investors who aim at making investment decisions in the firm. The study has showed that firm size controls how financial reporting quality affects investment decisions of the listed firm. This means that depending in the size of the listed firms; financial reporting quality will have significant implication on investment decisions.

Investors should be more rational before committing their funds to the firm. Critical skills should be demonstrated by shareholders and investors rather than merely looking at the face of the financial reports published by the firm. This is because management may have tempered with the financial reports to deceive shareholders. The board of directors have an oversight role on behalf of the shareholders. Published financial statements should be approved by the directors. This means that it would be hard for management to manipulate the reports with a strict board of directors. Thus, manipulation of financial accounts by the management to deceive shareholders and investors can only be possible when the top management has colluded with the board.

5.4 Recommendations of the Study

The study has found out that earnings quality management has significant effect on investments decisions of the listed firms. Thus, this study recommends that the finance managers of the listed firms in Kenya should try to minimize incidences and practices of earning quality management so as to support informed decision making among investors. The board of directors being the oversight body on behalf of investors should establish strong

internal control systems among listed firms that would minimize earnings management thus allowing investors and shareholders to make rationale and informed investment decisions.

The finance managers of the listed firms have a major responsibility of ensuring that the published information in the financial reports is of high quality so that investors are able to make informed decisions regarding the firm. While seeking to enhance the quality of financial reports, emphasis should be on earnings management, accrual quality and conservation accounting since they significantly influence how investors make their investment decisions. Shareholders and investors of the listed firms in Kenya should be rational and critical when relying on financial reports to make investment decisions.

The policy makers at the Central Bank of Kenya (CBK) should stipulate strict guidelines regulating financial reporting of listed banks in Kenya. The CMA, a regulator of the listed firms in Kenya should formulate sound regulations to govern financial reporting of the listed firms. The policy makers at the Kenya Association of Manufacturers (KAM) should come up with relevant regulations that guide financial reporting of the listed manufacturing firms that are members of this body.

5.5 Limitations of the Study

Conceptually, this study was limited to three variables, financial reporting quality as the independent variable, and investment decision as the dependent variable while firm size was the controlling variable. Theoretically, the agency theory, stakeholder theory, and the signaling effect theory provided anchorage to the study. The main theory of the study was the agency theory.

Methodologically, the study was limited to a five year period of 2016-2020. The study was limited to information obtained from auxiliary sources. Panel data methodology was adopted

and the relevant model used was RE. This was after the results from relevant tests favored the RE model. The analysis was supported by Stata software version 14.

Contextually, the study was limited to a small sample of the listed firms in Kenya. In total, 65 listed firms were studied. Census was embraced on account that the sample was relatively small to carry out sampling. The use of census gave an opportunity for the study to cover all the listed firms at the NSE thus making it easier to generalize results.

5.6 Suggestions for Further Research

The present study was done focusing on investment decision as the dependent variable. Therefore, it is prudent that the further studies are done covering other aspects like profitability and financial performance. This will give room for rigorous generalization of the findings of the study. It will also facilitate comparison of the findings.

Furthermore, aside from the listed firms at the NSE, future studies can be on non-listed firms for instance the small and medium enterprises (SMEs). Financial reporting quality in the context of public sector in Kenya is also desired. This is after several incidences of misappropriation of funds. More emphasis should also be placed on supermarkets as well as Universities in Kenya that are facing issues.

A comparison of RE and FE should be done to establish the differences in results. Furthermore, future studies should adopt other robust methodologies for instance the Structure Equation Modeling (SEM). Other analytical softwares like SAS should be adopted by future studies. Cointegration may also be suitable to be used during analysis in future.

REFERENCES

Abang'a, A. O. G. (2017). *Determinants of quality of financial reporting among semi-autonomous government agencies in Kenya* (Doctoral dissertation, Strathmore University).

Abor, J. & Bokpin, G. (2010). Investment opportunities, corporate finance, and dividend payout policy: Evidence from emerging markets. *Studies in Economics and Finance. 27: 180-194.*

Ahn, S., Denis, D. J. & Denis, D. K. (2006). *Leverage and investment in diversified firms. J. Financ. Econ., 79: 317-337.*

Aivazian, V. A., Ge, Y. & Qiu, J. (2005). Debt maturity structure and firm investment. *Financ. Manag., 34: 107-119.*

Angela, W., & Aryancana, R. (2017). The Effect of Financial Reporting Quality on Financing and Investment. *Etikonomi*, *16*(1), 81-92.

Anyanzwa, J. (2015). *Listed firms turn to debt financing to raise capital.* East African Business Daily, 11-12.

Ardianto, H. P., Harymawan, I., Paramitasari, Y. I., & Nasih, M. (2020). Financial Reporting Quality and Investment Efficiency: Evidence from Indonesian Stock Market. *Economics and Finance in Indonesia*, *66*(2), 112-122.

Baker, M. (2009). *Capital market-driven corporate finance. Annual Review of Financial Economics, 1: 181-205.*

Bamidele, M. M., Ibrahim, J., & Omole, I. I. (2018). Financial reporting quality and its effect on investment decisions by Nigerian deposit money banks. *European Journal of Accounting, Auditing and Finance Research*, *6*(4), 23-34.

Barbi, M. (2012). On the risk-neutral value of debt tax shields. *Applied Financial Economics*, 22(3): 251–258.

Bhundia, A. (2012). A comparative study between free cash flows and earnings management. *Business Intelligence Journal, 5: 1-4.*

Bodie, Z., Kane, A. & Marcus, A. (2004). *Essentials of investments.* SERBIULA (Sistema Librum 2.0).

Boehlje, C. & Ehmke, M. (1986). *A methodology and model for assessing entrepreneurial ventures.* Paper Presented at the Annual Meetings of the International Food and Agribusiness Management Association.

Brealey, R. A., Myers, S. C. & Allen, F. (2017). *Principles of corporate finance.* Oxford University Press, New York.

Buus, T, (2012). *A general free cash flow theory of capital structure.* University of Economics Prague, Czech Republic.

Cantor, R. (1990). Effects of leverage on corporate investment and hiring decisions. *FRBNY Quarterly Review,* Summer(1990): 31-41.

Carpenter, R. & Guariglia, A. (2008). Cash flow, investment, and investment opportunities: New tests using UK panel data. *Journal of Banking & Finance*, 32(9): 1894-1906

Christy, G. C. (2009). *Free cash flow: Seeing through the accounting fog machine to find great stocks.* Wiley Online Library.

CMA, (2016). CMA annual report. http://www.cma.or.ke/index.php?option=com_content.

Dechow, P. & Ge, W. (2006). The persistence of earnings and cash flows and the role of special items: Implications for the accrual anomaly. *Review of Accounting Studies*, 11: 253-296.

Denis, D., Denis, D., & Sarin, A. (1994). The Information Content of Dividend Changes: Cash Flow Signaling, Overinvestment, and Dividend Clienteles. *The Journal of Financial and Quantitative Analysis, 29*(4): 567-587.

Dogan, M. (2013). Does firm size affect the firm profitability? Evidence from Turkey. *Research Journal of Finance and Accounting*, 4(4), 53-59.

Donaldson, G. (1961). *Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity.* Boston: Division of Research, Harvard School of Business Administration.

Ehikioya, B. I. (2009). Corporate governance structure and firm performance in developing economies: Evidence from Nigeria. <u>*Corporate Governance*</u>, 9(3): 231-243.

Fama, E. F. & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The Review of Financial Studies*, 15(1): 1–33.

Fazzari, S., Hubbard, R., Petersen, B., Blinder, A. & Poterba, J. (1988). Financing Constraints and Corporate Investment. *Brookings Papers on Economic Activity, 1988*(1): 141-206.

Fernández, P. (2004). The value of tax shields is NOT equal to the present value of tax shields. *Journal of Financial Economics*, 73: 145–165.

Firth, M., Lin, C. & Wong, S. M. L (2008). <u>Leverage and investment under a state-owned bank lending environment: Evidence from China.</u> *Journal of Corporate Finance, Elsevier,* 14(5): 642-653.

Firth, M., <u>Malatesta</u>, P., Xin, O. & Xu, L. (2012). Corporate investment, government control, and financing channels: Evidence from China's listed companies. <u>*Journal of Corporate Finance*</u>, 18(3): 433-450.

Frank, M. Z. & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics,* 67(2): 217–248.

Gall, M.D., Gall, J. P., & Borge, W. R. (2006). *Educational research: An introduction.* (8th Ed.), New York; Pearson.

Gentry, J. A., Vaidyanathan, R. & Lee, H. W. (1990). A weighted cash conversion cycle. *Financial Management,* 19 (1): 90-99.

Gitari, M. S. (2014). *The effect of cash flow on investments in fixed assets for companies listed at the Nairobi Securities Exchange. Unpublished Master in Business Administration Research Project, University of Nairobi.*

Grewal, D., Levy, M., & Lehmann, D. (2004). Retail branding and customer loyalty: An overview. *Journal of Retailing 80 (10): 101-116.*

Griner, E. H. & Gordon, L.A. (1995). Internal cash flow, insider ownership, and capital expenditures: A test of the pecking order and managerial hypotheses. *Journal of Business Finance & Accounting,* 22: 179-199.

Guest, P. M. (2008). The impact of board size on firm performance: Evidence from the UK. *The European Journal of Finance,* 15(4): 385-404.

Gutiérrez, G., & Philippon, T. (2016). Investmentless growth: An empirical investigation. *Brookings Papers on Economic Activity,* 89-169.

Hann, R., Ogneva, M., & Ozbas, O. (2010). Corporate diversification and the cost of capital. *The Journal of Finance, 68*(5): 1961-1999.

Helfert, E. R. (2001). *Financial analysis: Tools and techniques; Guide for managers.* McGraw-Hill.

Iqbal, J., & Khan, A. (2020). The Impact of Financial Reporting Quality on Investment Efficiency in Non-Financial Firms. *Paradigms*, *14*(1), 140-148.

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review, 76*(2), 323-329.

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4): 305-360,

Jensen, P. E. (2006). *Trade, entry barriers, and home market effects*. Willey Online Library.

Kaplan, S. N. & Zingales, L. (1997). Do investment-cash flow sensitivities provide useful measures of financing constraints? *Quarterly Journal of Economics*, 92(2): 169-216.

Kaplan, S. N. & Zingales, L. (2000). Investment-Cash Flow Sensitivities are not Valid Measures of Financing Constraints. *Quarterly Journal of Economics*, 115(2): 707-712.

Kew, J., Mettler, C., Walker, T. & Watson, A. (2006). *Accounting an introduction (2nd ed.).* Oxford University Press.

Kinyanjui, M. M. (2014). *The relationship between free cash flows and investments of firms quoted at the Nairobi Securities Exchange*. Unpublished Masters Thesis, University of Nairobi.

Kinyanjui, M.M. (2014). *The relationship between free cash flow and investments of firms quoted at the Nairobi Securities Exchange. Unpublished Master of Science in Finance Research Project, University of Nairobi.*

Kochhar, R. & Hitt, M. (1998). Research notes and communications linking corporate strategy to capital structure: Diversification strategy, type, and source of financing. *Academy of Strategic Management Journal*, 19: 601-610.

Lang, L. H. P. & Litzenberger, R. H. (1989). Dividend announcements, cash flow signaling vs. free cash flow hypothesis? *Journal of Financial Economics*, 24: 181-191.

Lang, L. Ofek, E. & Stulz, R. E. (1996). *Leverage, investment, and firm growth.* National Beureau of Economic Research, Working Paper 5165.

Lawrence, D. (2006). The contributions of productivity, price changes and firm size to profitability. *Journal of Productivity Analysis,* 26: 1-13.

Lee, J., Park, D. & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic Commerce Research and Applications*, 7: 341-352.

Lekamario, J. L. (2017). *Factors Affecting The Quality Of Financial Reporting Of County Governments In Kenya* (Doctoral dissertation, Kca University).

Lin, C. J., Wang, T., & Pan, C. J. (2016). Financial reporting quality and investment decisions for family firms. *Asia Pacific Journal of Management*, *33*(2), 499-532.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review, 46*(2): 97-113.

Lukam, W. (2011). *The relationship between firms' free cash flow and investment: an imperical study on Malaysian public listed companies.* Unpublished Corporate MBA Thesis, UNIMAS.

Mabinda, B., Namusonge, G.S. & Iravo M. (2018). *Portifolio income as a determinant of corporate investment decisions of firms listed on Nairobi Securities Exchange in Kenya. International Journal of Social Sciences and Information Technology, 2(4): 82-93.*

Mairesse, J. Hall, B. H. & Mulkay, B. (1999). Firm-level investment in France and the United States: An exploration of what we have learned in twenty years. National Beureau of Economic Research, Working Paper 5165.

Matata, M. (1996). *Possible causes of poor investment in financial institution in Kenya. Unpublished Master in Business Administration Research Project, University of Nairobi.*

McConnell, J. & Muscarella, C. (1985). Corporate capital expenditure decisions and the market value of the firm. *Journal of Financial Economics*, 14(3): 399 -422

McConnell, J. & Muscarella, C. (1985). *Corporate capital expenditure decisions and the market value of the firm. Journal of Financial Economics, 14; 399-422.*

Miller, M. & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business*, 34: 411-33.

Modigliani, F. & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*,48: 261-297.

Muchiri, S. G. (2014). *The effect of cashflow on investments in fixed assets for companies listed at the Nairobi Securities Exchange.* Unpublished MBA Thesis, University of Nairobi.

Mundia, W. (2016). *Relationship between free cash flow and stock prices of non-financial firms listed at the Nairobi Securities Exchange.* Unpublished MBA Thesis, University of Nairobi.

Mundia, W. (2016). *Relationship between free cash flow and stock prices of non-financial firms listed at the Nairobi Securities Exchange. Unpublished Master in Business Administration Research Project, University of Nairobi.*

Myers, S. C. & Turnbull, S. M. (1977) Capital budgeting and the Capital Asset Pricing Model: Good news and bad news. *The Journal of Finance*, 32: 321-333.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2): 147-175,

Myers, S., & Majluf, N. (1984). Financing decisions when firms have investment information that investors do not. *Journal of Financial Economics*, (June): 187-220.

Nguyena, H. A. & Nguyena, T. H. (2020). *Determinants of firm's capital expenditure: Empirical evidence from Vietnam. Management Science Letters, 10: 943–952.*

Nohel, T. & Tarhan, V. (1998). Share repurchases and firm performance: New evidence on the agency costs of free cash flow. *Journal of Financial Economics*, 49(2): 187-222

Nyoike, C.M., (2002). *Financing capital investments by quoted companies in Kenya. Unpublished Master in Business Administration Research Project, University of Nairobi.*

Öberg, S. (2009). *Öberg: Sverige och finanskrisen.* Sveriges Riksbank

Ojode, C. A. (2014). *Effect of free cash flow on profitability of firms listed on the Nairobi Securities Exchange.* Unpublished MBA Thesis, University of Nairobi.

Ouma, V. (2017). *The relationship between reporting quality and financial performance of companies listed at Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Povel, P. & Raith, M. (2007). The u-shaped investment curve: Theory and evidence. *Journal of Financial and Quantitative Analysis*, 42(1): 1-39.

Powers, M. & Needles, B. E. (2011). *Financial accounting principles II edition*. Published by Cengage Learning.

Preinreich, G. A. D. (1932). Stock yields, stock dividends and inflation. *Accounting Review*, 7(4): 237–289.

Qandhari, S., Khan, M., & Rizvi, W. (2016). The relationship between cash flow and capital expenditure in the sugar industry of Pakistan. *Journal of Developing Areas*, 50(6): 341-353.

Qi, H. (2010). Value and capacity of tax shields: An analysis of the slicing approach. *Journal of Banking and Finance,* 35(1): 166–173.

Richardson, G. (2006). Determinants of tax evasion: A cross-country investigation. *Journal of International Accounting, Auditing and Taxation*, 15: 150-169.

Rocco, T., & Plakhotnik, M., (2009). Literature reviews, conceptual frameworks and theoretical frameworks: Terms, functions and Distinctions. *Human Resource Development Review 8(1), 120-130.*

Ruback, R. S. (2002). Capital cash flows: A simple approach to valuing risky cash flows. *Financial Management*, 31(2): 85–103.

Saffarizadeh, N. (2014). *The relationship between cash flow and capital expenditure from the German automobile sector.* Unpublished Msc Finance Thesis, EMU

Sage, G. H. (1937). Dividend Policy and Business Contingencies. *Harvard Business Review, 15: 245-252.*

Servaes, H. (1995). Equity Ownership and Two Faces of Debt. *Journal of Financial Economics, 39: 131-157.*

Shenoy, C. & Vafeas, N. (2019). The free cash flow effects of capital expenditure announcements. Unpublished Paper, School of Economics and Management, University of Cyprus, Nicosia, Cyprus.

Shyam-Sunder, L., & Myers, S. (1999). *Testing static trade-off against pecking order models of capital structure. Journal of Financial Economics, 51(2): 219-244.*

Singeng, D. (2016). *Testing the relationship between free cash flow and capital expenditure in Canadian listed companies.* Unpublished Msc Finance Thesis, Saint Marys" University.

Smith, D. (2011). *Dividend and dividend policy.* London: John Wiley & Sons.

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of financial Economics,* 26: 3-27.

Svenska Dagbladet, 16 December 2006. Old Mutual offer for Skandia, measured by market capitalization.

Talebi, M. (1996). Identifying the dimensions of liquidity management of companies. *Journal of Financial Studies,* 110 – 126.

Titman, S. & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance,* XLIII(1): 1-19.

Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of Money, Credit and Banking, 1(1): 15-29.*

Torfason, A. (2014). *The difference between cash flows in banks and non-financial firms.* Nordic Accounting Conference - NORACC; Copenhagen.

Vazquez, F. & Federico, P. (2015). Bank funding structures and risk: Evidence from the global financial crisis. *Journal of Banking & Finance*, 16(2): 44-67.

Vieira, R. S. (2010). *The Relationship between liquidity and profitability: An exploratory study of airline companies between 2005 and 2008.* Unpublished MBA Project, UMEA University.

Vogt, S. (1994). The cash flow/investment relationship: evidence from U.S.A manufacturing firms. *Financial Management*, 23(2): 3-20.

Vogt, S. (1996). Accelerating inflation or rising unemployment: is there an Alternative? *Financial Management*, 47(2): 197-230.

Vogt, S. (1997). Cash flow and Capital Spending: Evidence from capital expenditure announcements. *Financial Management*, 26(2): 44-57.

Wahome, J.G. (2017). The effect of free cash flow on investment by the insurance companies in Kenya. Unpublished Master in Business Administration Research Project, University of Nairobi.

Wang, G. Y. (2010). The impacts of free cash flows and agency costs on firm performance. *Journal of Service Science and Management*, 03(04): 408–418.

Windsor, D. (2011). Shareholder wealth maximization. *Finance Ethics: Critical Issues in Theory and Practice*, (1): 435–455.

Zhu, Y., Mustafa Kamal, E., Gao, G., Ayub Ahmed, A. A., Asadullah, A. B. M., & Donepudi, P. K. (2021). Excellence of Financial Reporting Information and Investment Productivity. *International Journal of Nonlinear Analysis and Applications*, *12*(1), 75-86.

Zurigat, Z. Sartawi, M. & Aleassa, H. (2014). Empirical investigation of free cash flow hypothesis: Evidence from Jordanian capital market. *International Business Research,* 7(3): 137-148.

Zwiebel, J. (1996). Dynamic capital structure under managerial entrenchment. *The American Economic Review, 86*(5): 1197-1215.

APPENDICES

Appendix I: Companies Listed at the NSE as at 31st December 2020.

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	Longhorn 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 Company					Sector	
	Year					
Data	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Capital Expenditure						
Net Change in Capital Expenditure						
Net Income						
Cash flows from operations						
Earnings Management						
Net Income						
Total Market Value						
Conservative Accounting						
Accounts Receivables						
Inventory						
Accounts						

Payable						
Tax Payable						
Other Current Assets						
Accruals Quality						

Appendix III: Secondary Data Collected

Firm	Year	Investment Decision Making	Earnings Management	Conservative Accounting	Accruals Quality	Firm Size
Athi river mining	2016	7.645112	-40.6353	0.373451	-3.5E+08	7.715474
Bamburi	2016	7.378343	0.676241	0.066721	4223622	7.623559
Car & General	2016	6.569545	0.525908	0.134322	345590	6.953665
Carbacid	2016	6.268118	0.701876	0.011673	46677	6.47257
Crown Berger	2016	6.095393	0.175845	0.01375	-242878	6.656974
East Africa Cables	2016	6.735524	1.276883	0.068828	-1217939	6.923459
E.A Portland	2016	7.300057	-18.0652	1.704675	-1120144	7.363848
Eveready	2016	5.97908	387.9799	0.856369	-424403	6.179456
Kakuzi	2016	6.141262	0.531795	0.074787	-99541	6.480741
Kengen	2016	8.506709	5.25031	4.213366	-4E+09	8.534686
KPLC	2016	8.32104	0.269176	0.288515	32879919	8.440111
KQ	2016	8.149253	-28.1647	-4.66295	11906000	8.260222
Safaricom	2016	8.094705	0.522458	0.048803	6651054	8.195782
Sameer	2016	5.993736	-0.12417	-0.00417	255949	6.574173
Sasini	2016	7.145689	7.606897	0.218631	-834799	7.205327
Standard Group	2016	6.423437	2.58012	-0.12655	327800	6.639049
Total Kenya	2016	7.03307	0.206324	0.140568	558631	7.534344
TransCentury	2016	7.008515	3.108401	-1.08501	-4749323	7.276727
Unga Group	2016	6.50773	1.230321	0.513486	376679	6.938109
Nation Media	2016	6.713642	0.707947	0.057512	-35012	7.103691
BOC Kenya	2016	6.028857	0.33051	0.030892	-62860	6.365667
EABL	2016	7.622234	0.428627	0.031626	3764373	7.825686
Eaagads Ltd	2016	5.001924	1.463186	0.802789	1499546	5.151036
Williamson Tea	2016	6.762109	-0.01214	-0.1354	-8511853	6.932401
Kapchorua Tea	2016	6.124829	2.14024	-0.02912	-3780453	6.297375
Limuru Tea	2016	5.176679	0.337842	0.001532	-45059	5.496609
Express	2016	5.522701	0.723015	-0.37657	-1075.5	5.645322
TPS	2016	7.130051	-0.73079	-0.06161	-969582	7.199091
Scan Group	2016	6.367649	0.444454	0.024222	737559	7.095813
Business Venture	2016	4.468501	-0.08553	0.083597	760876.3	5.048287
Jubilee	2016	7.915754	1.158241	0.107664	486090	7.915811
Pan Africa	2016	7.432958	-0.03585	0.003166	1186297	7.433118

Kenya Re	2016	7.555707	0.911681	0.157208	-21553	7.555749
Liberty	2016	7.538151	0.434768	0.07046	-201421	7.538243
Britam	2016	7.890029	-0.29584	-0.04006	235223	7.890043
CIC	2016	7.396536	-0.7153	0.04823	-158448	7.396552
Olympia	2016	6.169884	0.641799	-0.15391	-321334	6.185091
Centum	2016	7.788063	12.36738	0.256679	669435	7.85938
Home Africa	2016	5.903858	0.707444	-0.37022	151625	6.586848
Kurwitu	2016	4.679301	1.541438	1.329413	-219049	5.432839
NSE	2016	5.995996	-2.80284	0.084616	-6.5E+07	6.282902
BAT	2016	6.959136	1.26611	0.089441	-919552	7.271404
MUMIAS	2016	7.252	8.635433	-0.72043	-873579	7.310332
Longhorn Publishers Limited	2016	5.353809	12.15225	0.144589	-5.4E+07	5.838421
Deacons (East Africa) PLC	2016	6.05152	-0.20254	0.081802	-541440	6.395514
FTG Holdings	2016	5.436206	1.365527	0.089878	117318.2	6.122717
Kenya Orchards	2016	4.649523	-106.449	0.003278	12857.97	4.896147
Barclays Bank	2016	8.347714	-2.29975	0.113729	50195783	8.381795
Co-operative bank of Kenya	2016	8.495606	0.596153	0.110838	1.07E+08	8.53466
Diamond Trust Bank	2016	8.426972	-1.29557	0.126226	15938708	8.433944
Equity Bank	2016	8.594623	0.711085	0.114789	4544966	8.631507
Housing finance Company ltd	2016	7.855086	-0.20614	0.153837	-1819441	7.855273
I&M Bank	2016	8.259535	0.514002	0.086409	12639148	8.282675
KCB Bank	2016	8.663838	4.43327	0.146288	1.47E+08	8.746707
National Bank of Kenya	2016	8.037435	-0.26094	-0.21616	-1.8E+07	8.098437
NIC Plc bank	2016	8.19548	-0.92839	0.162041	1131948	8.219554
Stanbic Bank Kenya Ltd	2016	8.294691	0.232257	0.150418	31311203	8.319006
Standard Chartered Bank	2016	8.341879	0.228812	0.094685	13894729	8.369152
Athi river mining	2017	7.631171	2.189321	-0.12935	-1.2E+08	7.708071
Bamburi	2017	7.338676	0.898202	0.061078	2303378	7.610777

Company	Year					
Car & General	2017	6.606203	-0.97405	0.200802	-1164516	6.987004
Carbacid	2017	6.277268	1.003994	0.047807	132996	6.4888
Crown Berger	2017	6.106287	0.706683	0.078079	590344	6.704067
East Africa Cables	2017	6.725817	-0.99422	-0.39412	-1326779	6.877855
E.A Portland	2017	7.410394	11.54498	1.956107	-178994	7.444702
Eveready	2017	5.911825	1.822852	-0.27378	-210578	6.034551
Kakuzi	2017	6.479297	0.81005	0.093845	-474546	6.704529
Kengen	2017	8.537595	0.220373	0.178029	-3.5E+08	8.564356
KPLC	2017	8.38429	0.280272	0.452487	18905028	8.461773
KQ	2017	8.100284	-4.66897	-3.39306	143000	8.192247
Safaricom	2017	8.111404	0.589818	0.049663	1596543	8.201895
Sameer	2017	6.000254	0.682716	-0.51892	-592444	6.51731
Sasini	2017	7.147169	1.801128	0.176428	763228	7.225786
Standard Group	2017	6.380797	0.405703	0.147208	-164051	6.643939
Total Kenya	2017	7.03464	0.620466	0.208769	1991866	7.558533
TransCentury	2017	7.120223	-1.28692	-0.44858	-9.5E+07	7.276727
Unga Group	2017	6.403429	0.763651	0.214278	-426025	6.921768
Nation Media	2017	6.699907	0.759548	0.093228	-659571	7.085437
BOC Kenya	2017	6.00998	0.908666	0.027074	-155076	6.347103
EABL	2017	7.604126	0.5457	0.045209	-5191748	7.790616
Eaagads Ltd	2017	5.809412	0.027618	0.491732	-1.5E+09	5.881479
Williamson Tea	2017	6.744353	0.618436	0.154863	60490	6.950919
Kapchorua Tea	2017	6.096566	1.595884	0.374364	-263039	6.331344
Limuru Tea	2017	5.1398	-1.55859	-0.015	21781	5.450546
Express	2017	5.449959	8.550471	-0.77025	-6368.86	5.579299
TPS	2017	7.134536	0.167089	0.03463	1064597	7.230017
Scan Group	2017	6.375524	139.041	0.05973	617529	7.129896
Business Venture	2017	4.685645	-0.68333	0.075475	-51488.8	5.19149
Jubilee	2017	7.956904	2.19513	0.125253	-6386087	7.956974
Pan Africa	2017	7.453952	-0.03021	0.017673	988903	7.453969
Kenya Re	2017	7.585337	1.812187	0.178901	451533	7.585397
Liberty	2017	7.543065	0.618106	0.089123	1489660	7.543078
Britam	2017	7.922405	0.494322	0.12795	-2.2E+08	7.922428
CIC	2017	7.428442	-0.09083	-0.00416	-80928	7.428567
Olympia	2017	6.044549	0.097511	0.130123	-16783	6.183987
Centum	2017	7.829785	3.996281	0.404025	6555260	7.892393
Home Africa	2017	5.873366	11.41787	-0.3464	678465.7	6.594394
Kurwitu	2017	5.093917	-0.71807	0.954252	8780.989	5.109397

NSE	2017	6.001972	0.937851	0.048335	-15463	6.304004
BAT	2017	6.979159	0.939803	0.067652	198084	7.267167
MUMIAS	2017	7.395233	-0.57408	0.367507	230669	7.428153
Longhorn Publishers Limited	2017	5.549035	-0.19004	0.133967	-1.2E+08	6.271131
Deacons (East Africa) PLC	2017	5.964524	-0.80232	-0.37178	-462359	6.358255
FTG Holdings	2017	5.580674	3.632794	0.078203	39046.05	6.182185
Kenya Orchards	2017	4.626051	-1.906	0.00044	15722.27	4.950567
Barclays Bank	2017	8.391535	-0.67763	0.149696	-1803404	8.414502
Co-operative bank of Kenya	2017	8.513412	1.863358	0.163676	55684388	8.546331
Diamond Trust Bank	2017	8.508046	-2.23391	0.234235	17650181	8.515933
Equity Bank	2017	8.653523	0.277853	0.146652	22025109	8.675515
Housing finance Company ltd	2017	7.825428	-0.18636	0.185009	-9161199	7.856911
I&M Bank	2017	8.299853	#DIV/0!	0.104285	36414320	8.32334
KCB Bank	2017	8.75267	-2.1716	0.223739	74230776	8.774692
National Bank of Kenya	2017	8.015053	-0.00677	0.029087	-4055955	8.049552
NIC Plc bank	2017	8.210039	5.22115	0.260222	8322245	8.229065
Stanbic Bank Kenya Ltd	2017	8.313997	-0.52067	0.158542	29884037	8.331797
Standard Chartered Bank	2017	8.37101	-4.22149	0.139384	9725178	8.398777
Athi river mining	2018	7.590793	12.52615	-0.52486	9.56E+08	7.630418
Bamburi	2018	7.527578	1.305999	0.09897	-527000	7.67397
Car & General	2018	6.661604	0.201271	0.14162	475194	6.966965
Carbacid	2018	6.35558	1.015096	0.06991	-67499	6.519431
Crown Berger	2018	6.122622	-1.16394	0.040331	133345	6.768757
East Africa Cables	2018	6.668559	-5.60617	-0.49119	299753	6.847475
E.A Portland	2018	7.404975	1.865706	-0.43448	342537	7.437075

Eveready	2018	5.289571	-1.07554	0.356883	134471	5.887984
Kakuzi	2018	6.523606	0.64248	0.092019	375618	6.759375
Kengen	2018	8.540442	0.642212	0.150359	10665116	8.57603
KPLC	2018	8.431272	0.192999	0.297349	-1.6E+07	8.520138
KQ	2018	8.084955	-1.55559	-0.36034	-4.3E+09	8.169154
Safaricom	2018	8.135212	0.609151	0.045201	-4842316	8.208675
Sameer	2018	6.104275	0.143334	0.103114	-249482	6.472737
Sasini	2018	7.009062	-1.36976	0.046538	63388	7.120443
Standard Group	2018	6.41249	-0.32276	-0.06972	79971	6.6493
Total Kenya	2018	7.062881	7.184373	0.185087	-7905548	7.579922
TransCentury	2018	7.111815	2.500979	-1.73667	-843347	7.272792
Unga Group	2018	6.45575	-0.00441	-0.0022	1099129	6.975676
Nation Media	2018	6.699768	0.618544	0.061767	2649971	7.053858
BOC Kenya	2018	6.009667	0.131964	0.009371	191733	6.348046
EABL	2018	7.648676	0.555246	0.032832	-2542038	7.823911
Eaagads Ltd	2018	6.773142	-2.67459	0.072811	1.46E+09	7.382
Williamson Tea	2018	6.728436	1.123966	-0.09395	881608	6.922421
Kapchorua Tea	2018	6.093983	-0.31586	-0.10102	398197	6.307562
Limuru Tea	2018	5.085405	-1.88663	-0.01845	16700	5.418316
Express	2018	5.444363	1.818527	-0.68052	-49358.8	5.574069
TPS	2018	7.171409	0.14968	0.020178	353021	7.242711
Scan Group	2018	6.452537	4.101958	0.071131	-5.5E+07	7.138584
Business Venture	2018	4.628763	1.242113	-0.40711	-46986	5.157498
Jubilee	2018	8.021044	1.116433	0.123951	-7.2E+07	8.021055
Pan Africa	2018	7.47413	-0.02787	0.013273	1.41E+08	7.474384
Kenya Re	2018	7.630724	0.840224	0.13915	-60102	7.63076
Liberty	2018	7.569469	0.515985	0.103215	324450	7.569591
Britam	2018	7.995632	0.066416	0.01827	-3.6E+08	7.995744
CIC	2018	7.483422	0.168891	0.024105	85955	7.484376
Olympia	2018	6.111128	1.728883	0.277486	-43093	6.214525
Centum	2018	7.891628	4.435998	0.285449	-258085	7.946382
Home Africa	2018	5.833155	-5.41061	-0.31979	46437.72	6.651067
Kurwitu	2018	5.108442	-0.84814	0.186042	45815.45	5.147479
NSE	2018	6.015291	3.117783	0.042801	-6237	6.323916
BAT	2018	6.960962	0.709336	0.042422	254643	7.250556
MUMIAS	2018	7.346955	5.165031	-2.12498	-1102626	7.381857
Longhorn Publishers Limited	2018	5.783803	0.487062	0.080633	-438040	6.269217

Deacons (East Africa) PLC	2018	5.904935	22.97203	-1.94845	1.23E+08	6.191125
FTG Holdings	2018	5.731722	0.278112	0.019978	42952.16	6.225508
Kenya Orchards	2018	4.658832	1.431566	0.000657	-391781	5.034541
Barclays Bank	2018	8.406911	1.535018	0.132828	10065870	8.433885
Co-operative bank of Kenya	2018	8.559425	1.852489	0.147263	-9.2E+07	8.587551
Diamond Trust Bank	2018	8.551049	2.90367	0.128997	-6193442	8.560269
Equity Bank	2018	8.697047	0.371146	0.126117	38651691	8.719717
Housing finance Company ltd	2018	7.802512	0.024189	0.034726	-1.1E+07	7.829568
I&M Bank	2018	8.358374	6.001528	0.06918	-1.2E+07	8.380412
KCB Bank	2018	8.790692	0.977534	0.150336	53512193	8.810682
National Bank of Kenya	2018	8.010185	1.13213	0.247833	-8028966	8.040892
NIC Plc bank	2018	8.293708	0.180697	0.191899	-8194679	8.314231
Stanbic Bank Kenya Ltd	2018	8.381465	0.47962	0.134583	18288377	8.395743
Standard Chartered Bank	2018	8.43518	-3.07028	0.096768	-2.3E+07	8.455947
Athi river mining	2019	5.59962	0.441026	1.091931	587184	5.635846
Bamburi	2019	7.578788	0.202621	0.011894	-3163000	7.70206
Car & General	2019	6.711323	0.50168	0.313401	512846	7.007471
Carbacid	2019	6.362829	0.983485	0.07407	156180	6.527789
Crown Berger	2019	6.199171	4.936637	0.030647	-2706754	6.738439
East Africa Cables	2019	6.737949	-0.85109	-0.38478	2.53E+08	6.819785
E.A Portland	2019	7.556807	-7.80488	5.420182	88200423	7.580098
Eveready	2019	5.400541	0.63248	-0.15013	-127221	5.758736
Kakuzi	2019	6.559203	1.341787	0.079763	14185	6.773863
Kengen	2019	8.541506	0.415065	0.15744	-1.5E+07	8.579044
KPLC	2019	8.450303	0.06829	0.241486	1.91E+09	8.527185

KQ	2019	8.036062	-1.18408	-0.14582	774322	8.135559
Safaricom	2019	8.146057	0.601229	0.062161	-1.8E+07	8.223857
Sameer	2019	6.109799	2.128288	-1.34351	-401319	6.412935
Sasini	2019	7.013509	0.931036	0.066539	981168	7.112651
Standard Group	2019	6.428869	0.905959	0.108368	-657674	6.669887
Total Kenya	2019	7.079096	0.196596	0.133579	2078566	7.593938
TransCentury	2019	7.110168	6.538583	-2.68121	3.73E+08	7.221888
Unga Group	2019	6.523336	-3.30965	0.30048	835826	6.997066
Nation Media	2019	6.678518	1.835823	0.081819	-448708	7.04914
BOC Kenya	2019	5.986636	7.973847	0.017798	222129	6.330768
EABL	2019	7.696539	0.471298	0.02971	-8550967	7.852766
Eaagads Ltd	2019	5.895957	218.6259	-0.26027	1060142	5.957078
Williamson Tea	2019	6.767003	1.687688	0.191393	-4334606	6.977956
Kapchorua Tea	2019	6.143767	5.306113	0.28358	-1212198	6.396032
Limuru Tea	2019	5.036365	1.112178	0.002123	-763086	5.428548
Express	2019	5.390027	1.590673	-0.42817	-181420	5.506427
TPS	2019	7.189858	0.280013	0.042722	-79735	7.245466
Scan Group	2019	6.503007	0.486724	0.085136	609440	7.159122
Business Venture	2019	4.07784	1.084731	0.848216	-5933	4.706684
Jubilee	2019	7.463566	0.650891	-0.62482	1.45E+08	7.463917
Pan Africa	2019	3.645913	0.899395	0.910619	-1.4E+08	4.36101
Kenya Re	2019	7.646554	0.742498	0.180546	523695	7.647017
Liberty	2019	7.56319	-0.59159	0.079519	45595	7.563232
Britam	2019	8.015429	-0.45752	-0.08759	-690278	8.015596
CIC	2019	7.519081	0.380221	0.080972	-14859	7.519124
Olympia	2019	6.098487	-0.06357	-0.04152	-18566	6.219816
Centum	2019	7.916135	0.589367	0.143438	1893631	7.983573
Home Africa	2019	5.832593	-5.96327	-1.22041	128985.1	6.65345
Kurwitu	2019	5.115631	1.684516	-19.6769	-39665.8	5.14078
NSE	2019	6.033228	2.790204	0.049623	2.6E+08	6.346038
BAT	2019	6.960123	0.770425	0.049544	-2431778	7.263358
MUMIAS	2019	7.179189	28.76607	-7.50419	1.53E+09	7.196884
Longhorn Publishers Limited	2019	5.877199	0.329712	0.137996	489689	6.381572
Deacons (East Africa) PLC	2019	4.36502	5.708883	3.166775	-176218	4.809236
FTG Holdings	2019	5.848879	1.462767	0.022012	-134600	6.264646

	Year					
Kenya Orchards	2019	4.629319	3.7188	0.007052	402906.4	5.059055
Barclays Bank	2019	8.479693	-0.71445	0.12469	29037867	8.512301
Co-operative bank of Kenya	2019	8.581144	0.384835	0.135633	46042268	8.616655
Diamond Trust Bank	2019	8.567956	0.563398	0.161848	11819263	8.577169
Equity Bank	2019	8.739594	1577.967	0.150738	1.15E+08	8.758446
Housing finance Company ltd	2019	7.761695	-0.27138	-0.28075	-9819818	7.782109
I&M Bank	2019	8.374084	0.218426	0.093241	18309786	8.39557
KCB Bank	2019	8.827545	3.034265	0.208972	1.4E+08	8.853888
National Bank of Kenya	2019	8.036355	0.058838	-0.0471	-1E+07	8.060128
NIC Plc bank	2019	8.293256	0.470956	0.216069	-2.2E+08	8.318913
Stanbic Bank Kenya Ltd	2019	8.413117	0.117227	0.173577	7585626	8.448634
Standard Chartered Bank	2019	8.423443	-2.14435	0.121222	19837874	8.45546
Athi river mining	2020	6.740194	1.174622	0.026557	2879	6.741377
Bamburi	2020	7.56812	0.115101	0.012364	3.6E+08	7.690949
Car & General	2020	6.773341	-0.88123	0.242449	35091540	7.060084
Carbacid	2020	6.406054	0.662038	0.133257	2.55E+08	6.544502
Crown Berger	2020	5.657767	1	0.00549	71002164	5.730154
East Africa Cables	2020	6.709921	7.204872	3807.491	132435	6.797605
E.A Portland	2020	5.583365	0.783036	10.74171	36298	5.622364
Eveready	2020	4.730532	67.92213	-1.31404	2.1E+08	5.395372
Kakuzi	2020	6.587488	0.908171	0.107059	20874552	6.810302
Kengen	2020	3.800923	0.869929	0.000851	6.59E+09	4.619031
KPLC	2020	5.845038	1	0.996767	-11590	5.863085
KQ	2020	8.230482	-0.81657	-1.09029	5.82E+09	8.291531
Safaricom	2020	8.153867	0.626093	0.049515	4.01E+10	8.284377

Sameer	2020	5.822004	-5.41746	-0.73658	2.78E+08	6.184932
Sasini	2020	7.106785	-4.65436	0.482635	2.27E+08	7.166559
Standard Group	2020	6.448809	-0.91743	-0.21498	80567300	6.62283
Total Kenya	2020	7.137844	-9.21243	0.1464	6.17E+08	7.57478
TransCentury	2020	5.697432	1.182036	0.017836	73185	5.736653
Unga Group	2020	6.598728	0.768565	0.211652	70853591	7.027189
Nation Media	2020	6.714724	0.595554	0.115825	1.87E+08	7.082667
BOC Kenya	2020	5.959863	7.89462	0.01892	19547764	6.299428
EABL	2020	7.759388	0.510285	0.093946	7.89E+08	7.939844
Eaagads Ltd	2020	5.902783	0.08742	0.160123	262295	5.9742
Williamson Tea	2020	6.737521	-0.16151	-0.07055	20266537	6.917606
Kapchorua Tea	2020	6.064751	-0.25309	-0.20077	8305427	6.308174
Limuru Tea	2020	4.98252	-1.74152	0.001759	3028631	5.372304
Express	2020	5.597504	0.481489	-0.09565	35611616	5.6737
TPS	2020	7.205916	0.169486	0.056846	1.81E+08	7.254946
Scan Group	2020	6.793698	0.77366	0.066111	4.32E+08	7.107318
Business Venture	2020	3.243038	0.98638	0.212215	8870	3.812178
Jubilee	2020	8.114192	-6.79934	60.12521	-3682005	8.1142
Pan Africa	2020	7.462837	-0.06339	0.046188	1.41E+08	7.462886
Kenya Re	2020	7.702082	0.553233	1.130116	6.99E+08	7.702111
Liberty	2020	7.581017	-0.63616	0.133535	5.33E+08	7.582312
Britam	2020	8.097727	0.394557	0.155985	2.52E+09	8.097755
CIC	2020	7.544886	0.218092	0.064895	2.62E+09	7.547816
Olympia	2020	6.112945	0.103056	0.07143	39861093	6.211281
Centum	2020	7.938569	1.131803	0.20989	6.62E+08	8.007593
Home Africa	2020	5.593795	-14.8037	-3.65534	4.01E+08	6.63827
Kurwitu	2020	3.480007	1.002445	0.184822	21055	4.160168

NSE	2020	6.116254	1.169333	4.599474	794769	6.350713
BAT	2020	7.028778	0.511531	0.078119	93928097	7.341165
MUMIAS	2020	5.518002	1.417494	0.004693	2659	5.521836
Longhorn Publishers Limited	2020	5.939711	2.115469	0.096384	2.71E+08	6.370001
Deacons (East Africa) PLC	2020	5.518068	0.923138	0.565632	5510	5.527039
FTG Holdings	2020	6.079846	0.337279	0.065267	2.52E+08	6.358157
Kenya Orchards	2020	4.631492	3.513587	0.007497	89927358	5.133551
Barclays Bank	2020	8.538038	564.8543	0.102827	5.07E+09	8.57285
Co-operative bank of Kenya	2020	8.631424	0.703827	0.149187	5.36E+09	8.659925
Diamond Trust Bank	2020	8.577534	0.662164	0.23853	-1.1E+08	8.586846
Equity Bank	2020	8.796493	845.8756	0.12069	3.09E+09	8.828455
Housing finance Company ltd	2020	7.729231	-0.02115	-0.04432	3.1E+08	7.751702
I&M Bank	2020	8.418244	0.755946	0.200298	5.25E+08	8.437795
KCB Bank	2020	8.923146	1024.307	0.151993	2.06E+09	8.953553
National Bank of Kenya	2020	7.99716	-9.12837	-0.64123	2.6E+08	8.049329
NIC Plc bank	2020	5.642264	2.409871	0.000303	7.04E+08	5.650262
Stanbic Bank Kenya Ltd	2020	8.424794	0.987888	0.143001	1.16E+08	8.46643
Standard Chartered Bank	2020	8.449506	-1.7071	0.118411	1.07E+08	8.480207