

**THE EFFECT OF QUALITY FINANCIAL REPORTING ON IMPROVED
INVESTMENT EFFICIENCY: A CASE OF FIRMS LISTED ON THE NAIROBI
STOCK EXCHANGE**

BY:

JAMHURI JOEL

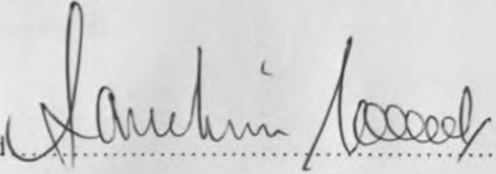
D61/8788/2006

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF
NAIROBI**

OCTOBER 2009

DECLARATION

This research project is my original work and has not been submitted for a degree in any other university.

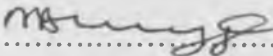
Signed..........

Date.....20/11/2009.....

JOEL JAMHURI

D61/8788/2006

This project has been forwarded for examination with my approval as the University Supervisor.

Signed..........

Date.....21/11/09.....

MOSES ANYANGU

LECTURER, DEPARTMENT OF FINANCE AND ACCOUNTING, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

DEDICATION

This research project is dedicated to my wife Rose and our two children Mutava and Ndulu, my mother Naomi and late father Joel, my siblings Ruth and her family, Julia and her family, and the late Kaunda and his family.

God bless you all.

ACKNOWLEDGEMENT

I thank the Almighty God for bringing me this far. It is by Him that I was able to successfully experience the start and completion of this MBA program.

This study would not have been complete without the support, guidance, encouragement and patience of my supervisor, Mr. Moses Anyangu.

I would like to express my sincere gratitude to all those who assisted me during data collection. Special thanks to the library staff at the Capital Markets Authority.

Profound thanks to all my lecturers, fellow students, and friends who through their enriching interaction, companionship, and experiences shared helped me widen my spheres in terms of my thinking and eventually led me to successfully researching on this topic.

I am forever indebted to my family for being there for me.

And special thanks to all those who knowingly or otherwise had a positive contribution to the successful completion of this research project.

God reward you all abundantly.

ABSTRACT

This project sought to examine the effect of quality financial reporting on improved investment efficiency.

A descriptive statistics analysis and regression analysis was done on 34 companies listed on the Nairobi Stock Exchange from 2003 – 2007.

The results of the study show that quality financial reporting enhances investment efficiency for capital investment by helping to mitigate both over- and under-investment. The findings further indicate that adjusted overall R-squared is 0.7469 meaning that the regression line explain 74.69% changes in the dependent variable (Table 4). In other words 74.69% changes in investments are caused by the independent variables included in the regression line. Therefore error term or the residue account for the other 25.31%.

LIST OF TABLES

Table 1 Panel A: Descriptive Statistics.....	27
Table 1 Panel B: Correlation Matrix.....	28
Table 2: Industry Level Investment.....	29
Table 3: Random/Fixed Effects.....	30
Table 4: Correlation between Investment and Other Variables.....	32

TABLE OF CONTENTS

CHAPTER ONE

1.0 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Statement of the Problem.....	4
1.2.1 Hypotheses.....	6
1.3 Objectives of the Study.....	6
1.4 Significance of the Study.....	6

CHAPTER TWO

2.0 LITERATURE REVIEW.....	7
2.1 Introduction.....	7
2.2 Agency.....	8
2.3 Corporate Financial Reporting and Regulation and Corporate Governance in Kenya..	8
2.4 Financial Reporting.....	9
2.4.1 Role of Financial Reporting.....	11
2.4.2 The Effect of Financial Reporting Quality on Sub-optimal Investment Levels.....	12
2.5 Investment Efficiency.....	13
2.5.1 Determinants of Investment.....	15
2.6 Summary of Literature Review.....	17

CHAPTER THREE

3.0 RESEARCH METHODOLOGY.....	19
3.1 Research Design.....	19
3.2 Population.....	19
3.3 Sampling.....	19
3.4 Data Collection.....	20
3.5 Data Analysis.....	20
3.5.1 Conceptual Framework of the Study.....	20

3.5.2 Definition of Variables.....	21
3.5.3 Regression Models.....	23
3.6 Diagnostic Test.....	25
CHAPTER FOUR	
4.0 DATA ANALYSIS AND INTERPRETATION.....	26
4.1 Introduction.....	26
4.2 The Effect of Quality Financial Reporting on Investment Efficiency.....	26
CHAPTER FIVE	
5.0 SUMMARY, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS.....	33
5.1 Summary and Conclusion.....	33
5.2 Limitations of the Study.....	34
5.3 Recommendations for Further Study.....	34
REFERENCES.....	35
APPENDIX.....	40

ABBREVIATIONS

CMA	Capital Markets Authority
CCG	Centre for Corporate Governance
CACG	Commonwealth Association for Corporate Governance
GAAP	Generally Accepted Accounting Principles
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
ICPAK	Institute of Certified Public Accountants of Kenya
KAS	Kenyan Accounting Standards
KPI	Key Performance Indicators
MIMS	Main Investment Market Segment
NPV	Net Present Value
NSE	Nairobi Stock Exchange
R&D	Research and Development
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
USA	United States of America

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

The usefulness of financial and other statements is affected by the quality of reporting: with consistency and accuracy being key aspects of quality. Financial reporting quality is the precision with which financial reporting conveys information about the firm's operations, in particular its expected cash flows, in order to inform equity investors. As described in the consolidated text of International Financial Reporting Standards (IFRS) International Accounting Standard 1 (IAS1) "...the objective of financial statements is to provide information about the financial position, financial performance, and cash flows of an entity that is useful to a wide range of users in making economic decisions..." (par.9). Further, expected cash flows is a key input to firm capital budgeting.

Accruals improve the informativeness of earnings by smoothing out transitory fluctuations in cash flows (Dechow and Dichev, 2002; McNichols, 2002). The use of accruals quality relies upon the fact that accruals are estimates of future cash flows and earnings will be more representative of future cash flows when there is lower estimation error embedded in the accruals process (Verdi S. Rodrigo, 2006).

High quality financial reporting is essential to maintaining a robust and efficient capital market system. A highly liquid capital market requires the availability of transparent and complete information so that all investors and potential investors can make informed decisions as they allocate their capital among competing alternatives.

While many have commented on the importance of financial reporting, Lawrence Summers, former secretary of the Treasury, in the United States of America, said it perhaps best: "The single most important innovation shaping (the American capital) market was the idea of generally accepted accounting principles". The importance of an independent private sector, open due process system due to established financial reporting standards cannot be overemphasized (Teets, 2002).

The adoption of standards that require high-quality, transparent, and comparable information is welcomed by investors, creditors, financial analysts, and other users of financial statements. Without common standards, it is difficult to compare financial information prepared by entities located in different parts of the world. In an increasingly global economy, the use of a single set of high-quality accounting standards facilitates investment and other economic decisions across borders, increases market efficiency, and reduces the cost of raising capital (Mirza *et al.* 2006).

Financial accounting information has value only if it helps people make good decisions. Information that would result in bad decisions is worthless and will be simply ignored. The more useful the information is in making decisions, the more valuable it will be to users. We can think of information that is very useful in making decisions as being of high quality. The quality of financial accounting information can be assessed at two different levels – the country level, as reflected in the quality of a country's Generally Accepted Accounting Principles (GAAP), and the firm level, as reflected in the quality of an individual firm's financial accounting information (Guenther, 2005).

An investment is the current commitment of money or other resources in the expectation of reaping future benefits. For example, an individual might purchase shares of stock anticipating that the future proceeds from the shares will justify both the time that her money is tied as well as the risk of the investment. The material wealth of a society is ultimately determined by the productive capacity of its economy, that is, the goods and services its members can create. This capacity is a function of the real assets of the economy: the land, buildings, machines, and knowledge that can be used to produce goods and services. In contrast to such real assets are financial assets, such as stocks and bonds. Such securities are no more than sheets of paper or, more likely, computer entries and do not contribute directly to the productive capacity of the economy. Instead, these assets are the means by which individuals in well-developed economies hold their claims on real assets. Financial assets are claims to the income generated by real assets (or claims on income from the government).

If we cannot own our own auto plant (a real asset), we can still buy shares in General Motors or Toyota (financial assets) and, thereby, share in the income derived from the production of automobiles. While real assets generate net income to the economy, financial assets simply define the allocation of income or wealth among investors. Individuals can choose between consuming their wealth today and investing for the future. If they choose to invest, they may place their wealth in financial assets by purchasing various securities. When investors buy these securities from companies, the firms use the money so raised to pay for real assets, such as plant, equipment, technology, or inventory. So investors' returns on securities ultimately come from the income produced by the real assets that were financed by the issuance of those securities (Bodie *et al.* 2008).

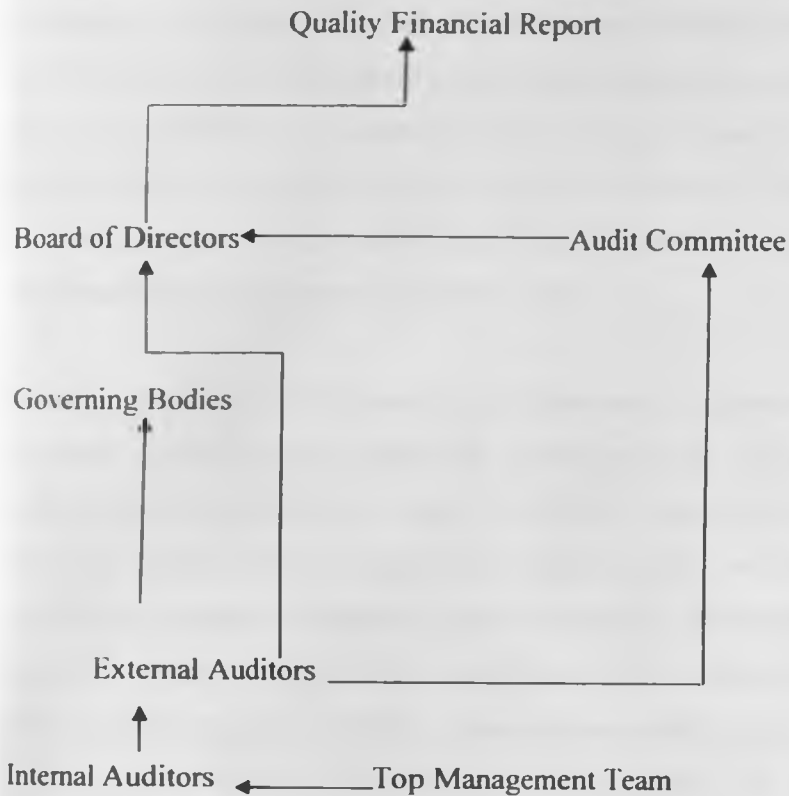
Investment efficiency is a function of the risk, return and total cost of investment management, subject to the constraints within which investors must operate. These constraints include financial elements and non-financial elements, such as an investor's time available to manage the investment arrangements, accountability as a fiduciary or legislative requirement (Hodgson *et al.* 2000).

Conceptually, a firm is defined as investing efficiently if it undertakes all and only projects with positive Net Present Value (NPV) under the scenario of no market frictions such as adverse selection or agency costs. Thus, under-investment includes passing up investment opportunities that would have positive NPV in the absence of adverse selection. Correspondingly, over-investment is defined as taking projects with negative NPV (Biddle *et al.* 2008).

For good corporate governance, companies should develop a "six-legged stool" model that supports responsible and reliable financial reports. Each participant in the process is a leg of the stool, supporting the one top goal of producing high-quality reports. The model is based on the active participation of the board, audit committee, top management, internal auditors, external auditors, and governing bodies. It fosters continuous improvements in the quality of financial reporting.

Figure 1:

Six-legged Stool of the Financial Reporting Process



Source: High-quality Financial Reporting by Zabihollah Razaee, CMA, CPA

1.2 Statement of the Problem

For capital markets to function efficiently and effectively, participants (including investors and creditors) must have confidence in the financial reporting process. Financial statement fraud is a serious threat to this confidence.

Quality financial reports, including reliable financial statements free of material misstatements due to errors and fraud, can be achieved when there is a well-balanced, functioning system of corporate governance.

The Nairobi Stock Exchange (NSE) is satisfied if a listed company issues audited annual financial statements; it does not have any arrangement to improve the quality of financial reporting by the listed companies. The Institute of Certified Public Accountants of Kenya (ICPAK) has not yet established a monitoring mechanism, making it difficult to identify and pursue violations of established rules and regulations. The ICPAK has designed a peer review program based on the approach followed in South Africa for monitoring quality assurance arrangements in audit firms. However, resource constraints have stalled the launching of the program (Rahman, 2001).

Most investors are overwhelmed by the impressive appearance of the reams of data in corporate financial reports, where the numbers always seem to “add up” in a maze of difficult-to-comprehend small print. They defer to these financial statements as if they were the product of some rigorous scientific inquiry and discipline. Virtually every number in a corporate financial report is created by judgments and estimates made by corporate insiders whose cash bonuses depend upon meeting preset earnings targets and whose ability to pocket millions from option-related stock sales is dependent upon meeting public earnings expectations and by auditors who stand to lose millions of dollars of high margin consulting fees if they force confrontations leading to their replacement (Lerach *et al.* 2004).

The findings in Biddle and Hilary (2006) raise the more questions of whether higher quality financial reporting improves investment efficiency by reducing over- and/or under-investment, and what is its net result.

The research problem for this study will be to determine the effect of quality financial reporting on improved investment efficiency for firms listed on the Nairobi Stock Exchange (NSE).

1.2.1 Hypotheses

The hypotheses established for this study include the following:

H₀: There is no significant relationship between quality financial reporting and improved investment efficiency of firms listed on the Nairobi Stock Exchange.

H₁: There is significant relationship between quality financial reporting and improved investment efficiency of firms listed on the Nairobi Stock Exchange.

1.3 Objective of the Study

The objective of this study is to establish the effect of quality financial reporting on improved investment efficiency.

1.4 Significance of the Study

This study will be of overriding importance to the following parties:

- i. **The policy makers** will find this study valuable as a basis of formulating policies, which when executed will improve regulation of listed firms.
- ii. **The government** might use this study to come up with better mechanisms of better corporate governance of listed firms.
- iii. **Researchers and scholars** can use this study as a basis of further research on financial reporting and investment matters.
- iv. **Managers of listed firms** will find this study useful in matters regarding decision making on investments based on financial reporting.
- v. **Local and foreign investors** will find this study useful in making sound financial and investment decisions regarding the sale and purchase of real and financial assets.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Financial reporting quality is inherently difficult to measure, especially across countries. There are at least four reasons for the difficulty of measurement of international financial reporting quality. First, it is impossible to pinpoint motives of management to manipulate earnings. Second, it is difficult to compare accounting standards and the enforcement of these standards between countries. Third, it is hard to compare legislations and regulations of corporate governance among different countries. Finally there are many factors influencing financial reporting quality so it is impossible to capture all variables that might be associated with financial reporting quality (Qingliang *et al*, 2008).

Financial accounting practices are perceived to have improved significantly since the Institute of Certified Public Accountants of Kenya (ICPAK's) decision to implement international standards in accounting and auditing. Discussions with some institutional investors, regulators, company directors, and academics in Kenya reveal that the financial reporting regime has experienced significant changes over the past 12 months. Bank failures and reports about manipulation of asset valuation in the financial statements of some large enterprises in the late 1990s provide examples of the unsatisfactory quality of financial reporting. ICPAK's decision to introduce IASs and International Standards on Auditing (ISAs) and the ensuing (largely voluntary) efforts have brought about improvements that represent a significant step forward.

However, the investment community perceives that considerable further improvements are required (Rahman, 2001).

2.2 Agency theory

According to Dulacha, (2007) agency theory models the relationship between the principal and the agent. Jensen and Meckling (1976) defined an agency relationship as “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent”. In the context of the firm, the agent (manager) acts on behalf of the principal (shareholder) (Eisenhardt, 1989; Fox, 1984; Jensen and Meckling, 1976; Ross, 1973). In the context of the firm, a major issue is the information asymmetry between managers and shareholders. In this agency relationship, insiders (managers) have an information advantage. Owners therefore face moral dilemmas because they cannot accurately evaluate and determine the value of decisions made. The agent therefore takes advantage of the lack of observability of his actions to engage in activities to enhance his personal goals. Formal contracts are thus negotiated and written as a way of addressing agent-shareholder conflicts. Voluntary disclosure presents an excellent opportunity to apply agency theory, in the sense that managers who have better access to a firms' private information can make credible and reliable communication to the market to optimise the value of the firm. These disclosures include investment opportunities and the financing policies of the firm. Conversely, managers may, because of their own interests, fail to make proper disclosure or nondisclosure of important information to the market. Such practices may not be in the interests of shareholders. This may result in a higher cost of capital and, consequently, shareholders may suffer a lower value for their investments.

2.3 Corporate Financial Reporting and Regulation and Corporate Governance in Kenya

Like most Commonwealth countries, the Kenyan Companies Act (Chapter 486, Laws of Kenya), is based on and is substantially the same as the United Kingdom (UK) Companies Act of 1948 (Ogola, 2000). The Kenyan Companies Act sets the general framework for financial accounting and reporting by all registered companies in Kenya, and stipulates the basic minimum requirements with regard to financial reporting.

Because of the limited details of the Act, financial reporting and regulation is supplemented by pronouncements of the Institute of Certified Public Accountants Kenya (ICPAK), extensively manifested in the adopted International Financial Reporting Standards. In fulfilment of its mandate as per the Accountants Act, the ICPAK is responsible for the development and implementation of accounting and auditing standards. The ICPAK has been engaged in the setting of Kenyan Accounting Standards (KASs) since the early 1980s. In order to enforce adherence to the highest standards of financial reporting, the ICPAK maintains a close working relationship with regulatory institutions such as the Central Bank of Kenya, and the Capital Markets Authority. Also, the ICPAK is represented on the Disclosure and Standards Committee of the Capital Markets Authority. With respect to corporate governance, the Kenyan Centre for Corporate Governance (CCG), an affiliate of the Commonwealth Association for Corporate Governance (CACG) is the key institution that drives the corporate governance reforms. As a consequence, in 2002 the Kenyan Capital Markets Authority (CMA) issued a mandatory Corporate Governance code for public listed companies, modelled on the CCG principles for corporate governance in Kenya compiled in 1999. In 2005, CCG issued a draft guideline on reporting and disclosures in Kenya. The emphasis of the draft is on non-financial disclosure such as ownership structure, board composition and corporate social responsibility (Dulacha, 2007).

2.4 Financial Reporting

According to Turner E. Lynn (1999), American capital markets are the best in the world. Transparent financial reporting is one of principal reasons behind their continued success. Through the continued team efforts of financial management, auditors and audit committees, high quality financial statements will continue to provide the necessary information required for investors to make informed decisions. The book, *Managing The Change Process*, notes that all businesses are going through change, either on their own initiative or because of external forces that compel them to do so. This is certainly also true for those involved today with financial reporting and the capital markets.

They are faced with compelling reasons to ensure their markets remain not only competitive on a global basis, but the very best. Certainly the worldwide events in 1997 and 1998 clearly pointed out that maintaining transparent financial reporting to users of financial information is an important part of the process.

Dunn E. Philip (2005) observed that to meet their basic objective, financial statements must be useful and the information relevant and reliable. Information will have relevance if it influences the decisions of the users. Irrelevant information has no use. Relevance and reliability are primary characteristics relating to content together with the threshold quality, materiality. The primary characteristics relating to presentation include comparability, clarity and understandability. The Statement of Principles identifies the major use groups, as did the Corporate Report in the 1970s. The main user groups include:

- Investors/shareholders
- Employees
- Lenders
- Suppliers
- Customers
- Government
- The public

Various user groups apply a series of accounting ratios to interpret and appraise financial performance.

Demand, and therefore supply, of quality financial information will be high if corporations are best described as owned by widely dispersed, individually atomistic shareholders. High-quality investor protection laws, good enforcement of these laws, and a common-law legal system collectively are conducive to diffusely owned corporations. Under these circumstances, regardless of whether the quality of financial reporting standards is high, disclosed financial statement numbers will be of a high quality. Cross-sectional variation is likely to exist in the demand for the quality of accounting

information as a function of the nature of a firm's investments, financing, and operating activities. For this reason, there would be cross-sectional variation in the quality of reported financial information but, overall, high-quality financial information will be available to market participants. Mandated and voluntary disclosures reduce information asymmetry among market participants, which in turn lowers the cost of capital and facilitates the channeling of investment into the most productive projects. However, a corner solution of maximum disclosure is not observed because direct, proprietary, and litigation costs of disclosure and benefits of disclosure vary across countries. Institutional factors like the code-law and common-law legal systems and the stakeholder and shareholder corporate governance models create differential demands for public disclosure of financial information (Kothari S.P., 2000).

2.4.1 Role of Financial Reporting

Financial reporting quality can be associated with investment efficiency in at least two ways. First, it is commonly argued that financial reporting mitigates adverse selection costs by reducing the information asymmetry between the firm and investors, and among investors (Verrecchia, 2001)).

For instance, Leuz and Verrecchia (2000) found that a commitment to more disclosure reduces such information asymmetries and increases firm liquidity. On the other hand, the existence of information asymmetry between the firm and investors could lead suppliers of capital to discount the stock price and to increase the cost of raising capital because investors would infer that firms raising money is of a bad type (Myers and Majluf, (1984)). Thus, if financial reporting quality reduces adverse selection costs, it can improve investment efficiency by reducing the costs of external financing and, as discussed in more detail below, the potential for financial reporting quality to improve investment efficiency is greatest in firms facing financing constraints. Second, a large literature in accounting suggests that financial reporting plays a critical role in mitigating agency problems.

For instance, financial accounting information is commonly used as a direct input into compensation contracts (Lambert *et al.* (2001)) and is an important source of information used by shareholders to monitor managers (Bushman and Smith, (2001)). Further, financial accounting information contributes to the monitoring role of stock markets as an important source of firm specific information (e.g., Holmstrom and Tirole, (1993); Bushman and Indjejikian, (1993); Kanodia and Lee, 1998)). Thus, if financial reporting quality reduces agency problems, it can then improve investment efficiency by increasing shareholder ability to monitor managers and thus improve project selection and reduce financing costs.

2.4.2 The Effect of Financial Reporting Quality on Sub-optimal Investment Levels

Biddle *et al.* (2008) noted that prior studies have suggested that higher quality financial reporting should enhance capital investment efficiency by mitigating information asymmetries that cause economic frictions such as moral hazard and adverse selection (e.g., Leuz and Verrecchia, (2000), Bushman and Smith, (2001); Verrecchia, (2001)).

For example, it is well established that financial reporting information is used by shareholders to monitor managers (e.g., Bushman and Smith, (2001); Lambert, (2001) and constitutes an important source of firm-specific information for investors (e.g., Bushman and Indjejikian, (1993); Holmstrom and Tirole, (1993); Kanodia and Lee, (1998)). If higher quality financial reporting serves to reduce moral hazard, it can improve investment efficiency by increasing shareholder ability to monitor managerial investment activities. Consistent with this view, Bens and Monahan (2004) find a positive association between The Association for Investment Management and Research (AIMR) disclosure ratings and the excess value of diversification as defined by Berger and Ofek (1995). Correspondingly, Hope and Thomas (2008) find that firms that cease to disclose geographical information post- Statement of Financial Accounting Standards (SFAS) 131 (their proxy for lower financial reporting quality) experience an abnormal increase in sales and a decrease in firm value (suggesting that these firms over-invest).

Bushman *et al.* (2006) found a positive relation between country measures of timely loss recognition and country propensity to liquidate bad projects (i.e., mitigate over-investment). These findings suggest that high quality financial reporting operates to reduce moral hazard.

However, the existence of information asymmetry between the firm and investors could also lead suppliers of capital to infer that a firm raising capital is of a bad type and to discount the stock price (Myers and Majluf, 1984). If financial reporting quality reduces adverse selection costs, it can improve investment efficiency by reducing the cost of external financing and by reducing the likelihood that a firm obtains excess funds because of temporary mispricings. Consistent with this view, Chang *et al.* (2008) propose a model of dynamic adverse selection and show empirically that firms with better auditing have more flexibility to issue capital. These findings suggest that high quality financial reporting also operates to reduce adverse selection.

2.5 Investment Efficiency

McDowell, (2001) observed that the goal of an organization is to invest in projects that maximize enterprise-wide strategic objectives. It is desirable that the investment approval process be comprehensive, yet require minimal organizational resources. The relationship between a capital investment and its ability to move an organization toward its goals also needs to be efficient: Every dollar of investment should generate maximum leverage.

According to Beatty *et al.* (2007) several recent papers have examined the effect of accounting quality on firms' investments. These studies take a variety of approaches to examining this issue. Bushman, Piotroski, and Smith (2005) are specifically interested in whether firms promptly withdraw capital from losing projects. They investigate whether firms in countries with accounting regimes characterized by more timely accounting recognition of economic losses respond more quickly to declining investment opportunities by reducing net inflows of capital to new investments.

They conclude that their results support this hypothesis and suggest that this effect is stronger in countries with more diffuse ownership. Verdi (2006) is concerned not only with whether firms over-invest in losing projects but also with whether they under-invest in positive net-present-value projects.

His overinvestment results are similar to those in Bushman, Priotroski, and Smith (2005) in that he found that higher accounting quality mitigates this problem and that the effect is greater for firms with dispersed ownership. However, he stated that he "cannot conclude that financial reporting quality is associated with lower underinvestment due to the reduction in information asymmetry between the firm and investors." Biddle and Hilary (2006) examined how accounting quality affects firms' investment-cash flow sensitivity. They found that higher accounting quality is associated with lower investment-cash flow sensitivity in the United States of America (USA) but not in Japan. They argue that the difference in results across these two countries is driven by the fact that more capital in the USA is provided through arm's-length transactions with investors who do not have access to private information channels. They do not directly test this interpretation. Furthermore, as they acknowledge, even if these results are driven by differences in access to private information across these two countries, their tests do not distinguish between lenders' ability to obtain private information versus their ability to monitor managers once capital is supplied. Thus the existing research on the effects of accounting quality on investments concludes that accounting quality improves investment efficiency, but the improvements are predominantly in firms with diffuse ownership where equity is likely to be the source of capital. Given the results in Bharath et al. (2006), Francis et al. (2005), and Whittenberg-Moerman (2006) that firms with relatively higher accounting quality are rewarded with a reduction in the cost-of-debt, it is somewhat surprising that this lower cost of capital would not lead to improved investment efficiency.

The central argument underlying these papers is that improved accounting quality allows lenders to reduce the costs associated with information asymmetry suggesting that accounting quality should increase investment efficiency even for firms that rely on debt financing.

2.5.1 Determinants of Investment Efficiency

Biddle *et al.* (2008) observed that in the neo-classical framework (e.g., Yoshikawa (1980), Hayashi (1982), Abel (1983)), the marginal Q ratio is the sole driver of capital investment policy. Firms invest until the marginal benefit of capital investment equals the marginal cost, subject to adjustment costs of installing the new capital; managers obtain financing for positive net present value projects at the prevailing economy-wide interest rate and return excess cash to investors. However, the literature has also recognized the possibility that firms may depart from this optimal level and either under- or over-invest. For example, prior research has identified two primary imperfections – moral hazard and adverse selection – both caused by the existence of information asymmetry between managers and outside suppliers of capital, which can affect the efficiency of capital investment.

Managers maximizing their personal welfares are sometimes inclined to make investments that are not in the best interests of shareholders (Berle and Means, (1932); Jensen and Meckling, (1976)). Models of moral hazard use this intuition and suggest that managers will invest in negative net present value projects when there is divergence in principal-agent incentives.

For example, Jensen (1986) predicts that managers have incentives to consume perquisites and grow their firms beyond the optimal size. These predictions receive empirical support from Blanchard *et al.* (1994), among others. Moral hazard can lead to both under- or over-investment depending on the availability of capital. On one hand, the natural tendency to over-invest will produce excess investment *ex post* if firms have resources to invest.

On the other hand, suppliers of capital are likely to recognize this problem and to ration capital *ex ante*, which may lead to under investment *ex post* (e.g., Stiglitz and Weiss (1991), Lambert *et al* (2007)).

Models of adverse selection suggest that if managers are better informed than investors about a firm's prospects, they will try to time capital issuances to sell overpriced securities (i.e., a lemon's problem). If they are successful, they may over-invest these proceeds (e.g., Baker et al (2003)).

However, investors may respond rationally by rationing capital, which may lead to *ex post* underinvestment. For example, Myers and Majluf (1984) show that when managers act in favor of existing shareholders and the firm needs to raise funds to finance an existing positive net present value project, managers may refuse to raise funds at a discounted price even if that means passing up good investment opportunities. Information asymmetries between firms and suppliers of capital can reduce capital investment efficiency by giving rise to frictions such as moral hazard and adverse selection that can each lead to produce over- and under-investment.

Verdi (2006) noted that there exist at least two determinants of investment efficiency. First, a firm needs to raise capital in order to finance its investment opportunities. In a perfect market, all projects with positive net present values should be funded: however, a large literature has shown that firms face financing constraints that limit managers' ability to finance potential projects (Hubbard, 1998).

One conclusion of this literature is that a firm facing financing constraints will pass up positive NPV projects due to large costs of raising capital, resulting in underinvestment. Second, even if the firm decides to raise capital, there is no guarantee that the correct investments are implemented. For instance, managers could choose to invest inefficiently by making bad project selections, consuming perquisites, or even by expropriating existing resources. Most of the literature in this area predicts that poor project selection leads the firm to over invest (Stein, 2003), but there are also a few papers which predict the firm could under invest (e.g., Bertrand and Mullainathan, (2003)).

Information asymmetry can affect the cost of raising funds and project selection. For instance, information asymmetry between the firm and investors (commonly referred as an adverse selection problem) is an important driver of a firm's cost of raising the capital required to finance its investment opportunities. Myers and Majluf (1984) develop a model in which information asymmetry between the firm and investors gives rise to firm underinvestment. They show that when managers act in favor of existing shareholders and the firm needs to raise funds to finance an existing positive NPV project, managers may refuse to raise funds at a discounted price even if that means passing up good investment opportunities.

Also, information asymmetry can prevent efficient investment because of the differential degree of information between managers and shareholders (commonly referred as a principal-agent conflict). Since managers maximize their personal welfare, they can choose investment opportunities that are not in the best interest of shareholders (Berle and Means, (1932); Jensen and Meckling, (1976)). The exact reason why managers inefficiently invest shareholders' capital varies across different models, but it includes perquisite consumption (Jensen, 1986, (1993)), career concerns (Holmstrom, (1999)), and preference for a "quiet life" (Bertrand and Mullainathan, (2003)), among others. More importantly, the predicted relation is that agency problems can affect investment efficiency due to poor project selection and can increase the cost of raising funds if investors anticipate that managers could expropriate funded resources (Lambert *et al.*, 2005).

In sum, the discussion above suggests that information asymmetries between the firm and investors and between the principal and the agent can prevent efficient investment.

2.6 Summary of Literature Review

Prior studies suggest that higher quality financial reporting should increase investment efficiency (e.g., Healy and Palepu, (2001); Bushman and Smith, (2001); Lambert, Leuz, and Verrecchia, (2007)).

Consistent with this argument. Biddle and Hilary (2006) found that higher quality financial reporting lowers investment-cash flow sensitivity (a proxy for investment inefficiency) both across countries and within countries when the financing is done at arm's length.

However, because investment-cash flow sensitivities can reflect either financing constraints or an excess of cash (e.g., Kaplan and Zingales (1997, 2000), Fazzari et al. (2000)), the findings in Biddle and Hilary (2006) raise the further questions of whether higher quality financial reporting enhances investment efficiency by reducing over- and/or under-investment, and what is its net effect.

According to Verdi (2006) recent papers (e.g., Healy and Palepu, 2001; Bushman and Smith, 2001; Lambert, Leuz, and Verrecchia, 2005) suggest that enhanced financial reporting can have important economic implications such as increased investment efficiency. However, despite solid theoretical support for such a relation, there is little empirical evidence supporting these claims.

This study will seek to address the effect of financial reporting quality on the investment process in Kenya and demonstrate that quality financial statements are a product of good corporate governance.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

The study sought to investigate the effect of quality financial reporting on improved investment efficiency for firms listed on the NSE. This study took an empirical approach to examine this relationship and used time series and cross sectional research design. I tested the hypotheses by identifying the factors that could lead to over- or under investment. In addition, I directly modelled the expected level of capital investment based on the firm's investment opportunities, and tested the association between financial reporting quality and deviations from this optimal level. Studies by Biddle *et al.* (2008) have used a similar research design whereby they concluded that higher financial reporting quality operates to enhance capital investment efficiency.

3.2 Population

The population of this study was 42 firms in the Main Investment Market Segment (MIMS) that were listed on the NSE from 2003 to 2007. Financial reports and investment projects have come under close scrutiny both from regulating bodies, Government and the general public. Corporate governance has also been the focal area of interest in the private sector. The NSE was the ideal front for carrying out this study based on availability, accessibility, and reliability of the data. Past studies of a similar nature have used NSE as the source of data (e.g. Gatauwa James M., 2008)).

3.3 Sampling

The sample consisted of all firms that were continuously quoted over the period 2003 - 2007. Any firm that did not remain listed over the five year period for whatever reason was excluded from the study.

This ensured consistency in analyzing data provided in the financial statements.

This time period was applicable since similar studies by Espinosa et al (2005) have used a 5 year time frame and also that in Kenya there has been remarkable corporate governance awareness. This can be attributed by, for instance, the gazettelement of the CMA guidelines for listed firms in 2002. The sample size was 35 firms.

3.4 Data Collection

This study made use of secondary data which was obtained from the financial statements and other records of firms listed on the NSE. The data that was collected mainly comprised of capital and non-capital investments and evidence of auditing of financial statements which is available at the NSE and CMA.

3.5 Data Analysis

In this study descriptive statistics was mainly used to summarize the data with the help of the Stata Package which comprises an analysis by using mean scores, standard deviation, tables and frequencies.

3.5.1 Conceptual Framework of the Study

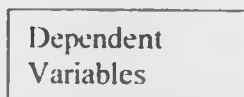
This study sought to determine the effect of quality financial reporting on improved investment efficiency. Hence, this involved regressing the dependent variables (investment efficiency measures) against the independent variables (quality financial reporting mechanisms).

Quality Financial Reporting



Financial Reporting quality
Over-investment proxies

Investment Efficiency



Investment, Capital expenditure
and non-capital expenditure

First I reviewed the determinants of investment efficiency. Then discussed how financial reporting quality can affect investment efficiency. Finally, I developed predictions on the effect of financial reporting quality on improved investment efficiency, and the channels through which this relation was expected to take place.

3.5.2 Definition of Variables

The variables used in this analysis were classified into the following categories:

1. Independent Variables

Quality financial reporting characteristics, which form the independent variable, was chiefly grouped under financial reporting quality and over-investment proxies.

Financial Reporting Quality:

This is the Cross-sectional and time-series measure of accruals quality.

Key Performance Indicators (KPIs) are leading indicators of financial results and intangible assets that are not necessarily included in a company's balance sheet and that can provide more transparency to investors in understanding the company. For example, would it help investors to be able to assess qualitative factors such as strategy, innovation, people and customer loyalty?

What about market share, leadership, technological change, Research and Development (R&D), brand or patents? Surely, providing key performance information on all of these parameters would enable or enhance assessment of the quality, sustainability and variability of a company's cash flows and earnings. However, such performance indicators are rarely found in existing financial reports.

Clearly, KPIs would change between industries to correspond with the unique features of each environment (Nusbaum and Thornton, 2009).

Proxies for financial reporting quality:

- Change in current assets
- Change in cash/cash equivalents
- Change in current liabilities
- Change in short-term debt
- Depreciation and amortization expense
- Net income before extraordinary items
- Change in revenue
- Gross property, plant and equipment

Over-investment Proxies:

OverAggregate = a ranked variable based on the unexplained aggregate investment rate for all firms in the economy.

OverIndustry = a ranked variable based on the unexplained industry-year investment. I will estimate a model of investment as a function of growth opportunities (as measured by sales growth) and use the residuals as proxies for overinvestment. The model is described in equation [2].

2. Dependent Variables

Investment efficiency measures formed the dependent variables and three key measures were studied. These are Investment, Capital expenditure and non-capital expenditure.

Investment = the sum of research and development expenditure, capital expenditure, and acquisition expenditure less cash receipts from sale of property, plant and equipment.

Non-Capital expenditure = the sum of research and development expenditure and acquisition expenditure.

The control variables include the following:

LogAsset = the log of total assets

Tangibility = the ratio of PPE to total assets

K-structure = the ratio of long-term debt to the sum of long-term debt to the market value of equity

Ind. K-structure = Mean *K-structure* for firms in the same industry.

CFOsale = The ratio of *CFO* to sales

Slack = The ratio of cash to PPE

Dividend = a dummy variable that takes the value of one if the firm paid dividend and zero otherwise.

Age = the difference between the first year when the firm appears in NSE and the current year.

OperatingCycle = the log of receivables to sales plus inventory to COGS multiplied by 360.

Loss = a dummy variable that takes the value of one if net income before extraordinary items is negative and zero otherwise.

Cash = the ratio of cash to total assets

3.5.3 Regression Models

This study used a multi-regression analysis in determining the relationship between quality financial reporting and improved investment efficiency for firms listed on the Nairobi Stock Exchange. The models used are as follows;

$$\text{Investment}_{i,t+1} = \alpha + \beta_1 \text{AQ}_{i,t} + \beta_2 \text{AQ}_{i,t} * \text{Overli}_{i,t+1} + \beta_3 \text{Overli}_{i,t+1} + \sum_{j \neq 1,2,3} \beta_j \text{Control}_{j,i,t} + \epsilon_{i,t+1} \quad (1)$$

Where:-

Investment = either total investment (*Investment*), capital investment (*Capex*), or non-capex investment (*Non-Capex*)

AQ = proxy for financial reporting quality

OverI = ranked variable used to distinguish between settings where over- or under-investment is more likely.

Control = set of control variables

In order to test the conditional relation between financial reporting quality and investment (equation (1)), I needed a proxy for over- and under-investment. To address this need, I aggregated investments at the industry level as proxies for the likelihood of over- and under-investment based on the idea that aggregate investment is less likely to be affected by firm-specific financial reporting quality. Specifically, I estimated a model of investment as a function of growth opportunities (as measured by sales growth) and used the residuals as proxies for overinvestment. The model is described below:

$$Investment_{t+1} = \beta_0 + \beta_1 * Sales Growth_t + \epsilon_{t+1} \quad (2)$$

Where:-

Investment = either the mean total investment, the mean capex or the mean non-capex investment for either the total economy or a given industry

Sales Growth = mean percentage change in sales

I estimated equation (2) at the industry-year level and used the residual to form *OverIndustry*. Specifically, I measured the average investment (*Investment*, *Capex* and *Non Capex*) and aggregate *Sales Growth* for all industries in a given year based on the NSE 4-sector classification. I ranked the residuals from the industry year estimation of equation (2) into deciles (re-scaled to range from zero to one to facilitate the interpretation of the estimated coefficients in equation (1)) to form a measure of aggregate over-investment (*OverIndustry*). I then assigned this industry-year level of over- and under investment to each firm-year observation based on its industry-year classification. This measure was then used as a dummy variable (*OverIndustry*) in the firm-year analysis described in equation (1).

My measure was therefore a measure of over-investment relative to other industries, not relative to the optimal (but unobserved) level.

3.6 Diagnostic Test

I used t-test to check the significance of relationship.

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The purpose of this study was to determine the effect of quality financial reporting on improved investment efficiency for firms listed on the Nairobi Stock Exchange (NSE).

Secondary data on various quality financial reporting parameters was extracted from the yearly reports posted by the sampled companies. Monthly financial statements data of 34 companies out of the sampled 35 was obtained from Nairobi Stock Exchange (NSE) representing 97% response rate. The data was captured into Ms Excel and Stata for analysis. Correlation analysis was used to examine the effect of quality financial reporting (independent variable) on improved investment efficiency (dependent variables). Multiple regressions were used to derive the model to show the factors affecting investment.

4.2 The Effect of Quality Financial Reporting on Investment Efficiency

According to table 1 Panel A below a sample of 170 observations were made. The mean investment across all firm-years equals 657402.5. The mean firm in the sample has an *AQ* (Accruals Quality) of -398668.6. These values are consistent with prior research (e.g. Biddle *et al.* 2006). Panel B presents correlations among the variables in Panel A. On a univariate basis, *AQ* is negatively correlated with Investment. However, the effect of financial quality on investment is conditional on the firm propensity to over- or under-invest.

Before the model could be accepted as final, it was subjected to multicollinearity diagnosis to establish the extent of correlation amongst the predictors (independent variables). The purpose of this step was to root out any variables that do not contribute much to the model. The collinearity statistics are presented in table 1 Panel B (Correlation Matrix)

Table 1 – Firm-Year Investment – Descriptive Statistics

Panel A – Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Investment, t+1	170	657402.5	2304800	317	2.37e+07
Accruals	168	-398661.6	242918	-1.57e+07	1.14e+07
Dep	170	280130.8	496692.3	3309	3472000
Cashflow	170	1201761	2723592	-1.09e+07	1.60e+07
Revenue	170	2.694861	30.30629	-.87	395
PPE	170	4393894	8662264	12814	6.70e+07
Logasset	170	6.762712	.8901092	.061	8.2
Tangibility	170	.8333253	3.754891	0	35
Kstructure	170	.4802353	3.78034	0	35
CFOsale	169	.2118289	.2939162	-.48	1.69
Slack	169	.584793	.9565918	0	8.25
Dividend	170	.8070588	.3945466	0	1
Age	170	13.49594	4.280253	-1	20
Oper. Cycle	170	2.383041	.6315183	.017	3.6
Loss	169	.0591716	.2366468	0	1
Cash	170	.5738526	6.513997	0	85
ROAi, t	170	.6654574	7.278679	-.15	95
Est_fixed s	170	.9823529	.1320538	0	1
Est_rando s	170	.9823529	.1320538	0	1
Residuals	170	83980.07	297399.8	-11601.28	1701512

Source: Research Findings

Panel A presents descriptive statistics for the variables used in the analyses. Panel B presents Pearson correlations for these variables

Panel B – Correlation Matrix

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	VIII
Investment,t+1	1.0000																	
Accruals	-0.2521	1.0000																
Dep	0.7949	-0.2512	1.0000															
Cashflow	0.4365	-0.6355	0.4556	1.0000														
Revenue	-0.0038	0.0951	-0.1533	-0.0097	1.0000													
PPE	0.3292	-0.2445	0.9368	0.4505	-0.1679	1.0000												
Logasset	0.5473	-0.1072	0.5694	0.3624	-0.0742	0.5336	1.0000											
Tangibility	0.2951	-0.1351	0.3560	0.0616	-0.1286	0.4466	-0.3398	1.0000										
Kstructure	0.0408	-0.1122	0.0409	-0.0512	0.0249	0.1006	-0.3273	0.4679	1.0000									
CFOsale	0.2664	-0.0047	0.1618	0.1751	0.1018	0.1364	0.4379	-0.1575	-0.1863	1.0000								
Slack	0.0539	0.0036	0.0604	0.1998	0.0828	-0.0340	0.5835	-0.6322	-0.5264	0.4099	1.0000							
Dividend	0.1519	-0.1117	0.0942	0.2104	0.1048	0.0929	0.1320	-0.0698	-0.2600	0.1914	0.1291	1.0000						
Age	0.0551	-0.0894	0.1580	0.2712	0.0298	0.1233	0.2843	-0.2413	-0.0867	0.1067	0.2030	0.1771	1.0000					
Oper. Cycle	0.0907	0.1270	-0.0894	-0.0474	-0.0654	-0.0502	0.2593	-0.3317	-0.2542	0.2522	0.3021	0.0578	-0.0249	1.0000				
Loss	-0.0393	-0.0906	0.0099	-0.1377	-0.1867	0.0356	-0.1156	0.1168	0.1217	-0.1749	-0.1136	-0.1995	-0.0439	-0.1495	1.0000			
Cash	0.3667	-0.1405	0.4692	0.3800	-0.0922	0.4362	0.3029	0.1037	-0.1273	0.1400	0.4383	0.1179	0.1182	0.0114	-0.0152	1.0000		
ROAi,t	0.2302	-0.1046	0.0721	0.3142	0.2680	0.1083	-0.1325	0.2367	-0.0242	0.1370	-0.1109	0.1964	0.0128	-0.0845	-0.3769	0.1002	1.0000	

Table 2 – Industry-level Investment

Panel – Descriptive statistics – Industry-years

Variable	Obs	Mean	Std. Dev.	Min	Max
Investment, t1	20	713830.6	1000233	48978.5	4107095
Indkstructure	20	.0793273	.0651892	0	.19
Salesgrowth	20	.1464596	.262888	-.44	1.03
Residuals	20	713830.6	559856.6	-11601.28	1701512

Table 2 presents descriptive statistics for the aggregate (industry-year) variables included in the investment model equation (2)

As shown in table 2 above the mean investment across all industry-years equals 713830.6. This is positively correlated with the proxies of financial reporting quality and therefore suggests that quality financial reporting affects investment efficiency.

Table 3 below shows results of testing random effects and fixed effects using hausman test. The results show consistency of variables (no repetition) because both random and fixed effects produce similar figures.

Table 3 - Random/Fixed Effects**Coefficients**

	Random Effects	Fixed Effects	Difference	S.E.
Accruals	.1156169	.1156169	0	0
Dep	-.8807036	-.8807036	0	0
Cashflow	.0244534	.0244534	0	0
Revenue	-4.146928	-4.146928	0	0
PPE	.2702962	.2702962	0	0
Logasset	-1.322341	-1.322341	0	0
Tangibility	-3.230127	-3.230127	0	0
Kstructure	-5.559792	-5.559792	0	0
CFOsale	-.9073768	-.9073768	0	0
Slack	9.445114	9.445114	0	0
Dividend	5.402637	5.402637	0	0
Age	-4.242541	-4.242541	0	0
Oper. Cycle	9.70634	9.70634	0	0
Loss	-2.661364	-2.661364	0	0
Cash	9.069001	9.069001	0	0
ROAi,t	.5762681	.5762681	0	0
Residuals	.3812414	.3812414	0	0

As shown in table 4 below all variables with positive values indicate that there are some unobservable factors which tend to enhance investments, the magnitude of which is coefficient. This means that if for example you increase accruals by 1 unit, investment will increase by 0.1156169. In other words 100% increase in accruals leads to 11.56169% increase in investment.

For those variables with negative sign, the implication is that specific fixed effects contain unobservable characteristics that hinder investments.

Direction is signified by positive or negative sign whereas magnitude is signified by size of coefficient. For example 1 unit change of Slack increases investment by 9.445114.

Standard error is the range of coefficient.

Under column $P > |z|$ any figure above 10% is insignificant at 10%, 5% and 1% significance level. What this means is that any figure below this value is significant at the above significance levels. This measures the level of influence of quality financial reporting (independent variables) on investment efficiency (dependent variable).

The data is cross-sectional panel oriented data. What this means is that the variables are more than the years. Therefore the best estimator for this kind of data is the within estimator. I used overall estimator to capture both within and between estimators. Therefore accruals (Accruals Quality), dep (depreciation), ppe (Property Plant & Equipment), dividend and age significantly influence investments (investment efficiency) either positively or negatively.

The findings further indicate that adjusted overall R-squared is 0.7469 meaning that the regression line explains 74.69% changes in the dependent variable (Table 4). In other words 74.69% changes in investments are caused by the independent variables included in the regression line. Therefore error term or the residue account for the other 25.31%. This is significant.

Table 4 – Correlation Between Investment and Other Variables

Random-effects GLS regression	Number of obs	=	167
Group variable: year	Number of groups	=	5
R-sq: within = 0.7458	Obs per group: min	=	32
between = 0.8744	avg	=	33.4
overall = 0.7469	max	=	34
Random effects u_i ~ Gaussian	Wald chi2(17)	=	439.76
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000

Investment,t+1	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Accruals	.1156169	.0523589	2.21	0.027	.0129952	.2182385
Dep	-.8807036	.3917566	-2.25	0.025	-1.648532	-.1128747
Cashflow	.0244534	.0504094	0.49	0.628	-.0743473	.123254
Revenue	-4.146928	.359133	-1.15	0.248	-11185.81	2891.949
PPE	.2702962	.0232873	11.61	0.000	.2246539	.3159385
Logasset	-1.322341	1.408366	-0.94	0.348	-408268.9	143800.6
Tangibility	-3.230127	23.33694	-0.14	0.890	-48969.69	42509.43
Kstructure	-5.559792	232.9827	-0.24	0.811	-51223.55	40103.97
CFOsale	-.9073768	3.599327	-0.25	0.801	-796192.7	614717.4
Slack	9.445114	1.064078	0.89	0.375	-114104.3	303006.6
Dividend	5.402637	24.85952	2.17	0.030	53026.01	1027501
Age	-4.242541	22.99112	-1.85	0.065	-87487.17	2636.351
oper. Cycle	.970634	177.9532	0.55	0.585	-251718.5	445845.3
Loss	-2.661364	39.26729	-0.68	0.498	-1035761	503488.4
Cash	9.069001	13.51667	-0.07	0.947	-27399.09	25585.29
ROAi,t	.5762681	12.41593	0.05	0.963	-23758.51	24911.04
Residuals	.3812414	.3322768	1.15	0.251	-.2700091	1.032492
Cons	4.679642	92.51293	0.51	0.613	-1345256	2281184

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Summary and Conclusion

The objective of the study was to investigate the effect of quality financial reporting on improved investment efficiency for Kenyan listed firms.

In order to attain these objectives, statistical analysis was done for 34 companies out of a population of 49 companies quoted in the period of 2003-2007.

This chapter gives a summary of the study findings. It also presents the limitations and recommendations for further research. The data were analyzed by use of Stata package to produce the correlation as well as regression analysis. Tables and were used to describe the data and draw conclusions on the findings.

The findings indicate that adjusted overall R-squared is 0.7469 meaning that the regression line explains 74.69% changes in the dependent variable. This is significant which implies quality financial reporting quality can improve investment efficiency by reducing the information asymmetry that causes frictions such as moral hazard and adverse selection.

Quality financial reporting reduces investment for firms that are more likely to have excessive depreciation and increases investment for firms more likely to have controlled depreciation.

Firms with high financial reporting quality invest less in years when the aggregate industry investment is high and more in year when the aggregate investment level is low. Financial reporting quality is also negatively associated with investment among firms operating in industries more likely to over-invest and positively associated with investment among firms operating in industries more likely to under-invest. These results are consistent with the notion that firms with better financial reporting quality are less affected by aggregate macro-economic shocks than firms with lower quality financial reporting. The findings also suggest that financial reporting quality increases investment among cash rich firms, and decreases investment among firms that are highly levered.

Additionally, firms with higher financial reporting quality are less likely to deviate from their predicted level of investment.

The findings extending Biddle *et al.* (2008) who find insights into the mechanisms by which higher financial reporting quality operates to enhance capital investment efficiency.

5.2 Limitations of the Study

One of the key limitations met is that complete data for one of the major companies in the Industrial & Allied sector could not be found leading to its elimination from the analysis.

The number of listed firms at the NSE is relatively small compared to stock exchanges in other parts of the world.

Moreover the time factor is another limitation which resulted to using of a short measurement period which affects the significance of the findings.

5.3 Recommendations for Further Study

The study focused on the effect of quality financial reporting on improved investment efficiency. Other factors can be used as a proxy for quality financial reporting e.g. corporate governance requirements, internal auditing, and staff turnover. Data on this can be obtained through structured questionnaires.

Also companies should closely monitor accruals, depreciation, and dividend as these independent variables have great level of influence on investments.

REFERENCES

- Abbas Ali Mirza, Graham J. Holt, Magnus Orrell. 2006. International Financial Reporting Standards Workbook and Guide.
- Abel, A., 1983. Optimal investment under uncertainty. *American Economic Review*, Vol. 73, Iss. 1, pp. 228-233.
- Baker, M., J. Stein, and J. Wurgler. 2003. When does the market matter? Stock prices and the investment of equity-dependent firms. *Quarterly Journal of Economics*, Vol. 118, Iss. 3, pp. 969-1005.
- Beatty Anne, Liao Scott, Weber Joseph, 2007. The Effect of Private Information and Monitoring on the Role of Accounting Quality in Investment Decisions.
- Bens, D., and S. Monahan, 2004. Disclosure quality and the excess value of diversification. *Journal of Accounting Research* 42 (4), 691-730.
- Berger, P., and E. Ofek, 1995. Diversification's effect on firm value. *Journal of Financial Economics* 37, 39-65.
- Berle, A., and G. Means, 1932. *The modern corporation and private property* (Macmillan, New York).
- Bertrand, M., and S. Mullainathan. 2003. Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy* 111, 1043-1075.
- Biddle, G., and G. Hilary, 2006. Accounting quality and firm-level capital investment. *The Accounting Review*, Vol. 81, No. 5, 963-982.
- Biddle G., Hilary G., and Verdi S. Rodrigo. 2008. How does Financial Reporting Quality Improve Investment Efficiency?

Blanchard, O., F. Lopez-de-Silanes, and A. Shleifer. 1994. What do firms do with cash windfalls? *Journal of Financial Economics*, Vol. 36, Iss. 3, pp. 337-360.

Bodie Zvi, Kane Alex, Marcus J. Alan. 2008. Investments, 1-2.

Bushman, R., and R. Indjejikian. 1993a. Shareholder demand for "distorted" accounting disclosures. *The Accounting Review* 68 (4), 765-782.

Bushman, R., J. Piotroski, and A. Smith, 2006. Capital allocation and timely accounting recognition of economic losses: international evidence, working paper. University of Chicago.

Chang, X., S. Dasgupta, and G. Hilary, 2008. The effect of auditor quality on financing decisions. Working paper.

Dechow, P., and I. Dichev, 2002. The quality of accruals and earnings: the role of accrual estimation errors. *The Accounting Review* 77, supplement, 35-59.

Dulacha G. Barako, 2007. Determinants of Voluntary Disclosures in Kenyan Companies Annual Reports.

Dunn E. Philip, 2005. International Journal of Applied Finance for Non-Finance Managers (ISSN: 1742-528X) Volume 1 Issue 1.

Guenther A. David. 2005. Financial Reporting and Analysis. 8.

Hayashi, F., 1982. Tobin's marginal q and average q: A neoclassical interpretation. *Econometrica*. Vol. 50, Iss. 1, pp. 213-224.

Hodgson T.M., Breban S., Ford C.L., Streatfield M.P., and Urwin R.C., 2000. The Concept of Investment Efficiency and its Application to Investment Management Structures.

- Holmstrom, B., 1999. Managerial incentive problems: a dynamic perspective. *Review of Economic Studies* 66, 169–182.
- Holmstrom, B., and J. Tirole. 1993. Market liquidity and performance monitoring. *Journal of Political Economy* 101, 678–709.
- Hope, O., and W. Thomas. 2008. Managerial empire building and firm disclosure. *Journal of Accounting Research* 46 (3), 591–626.
- Hubbard, R.G., 1998. Capital-market imperfections and investment. *Journal of Economic Literature* 36, 193–225.
- Jensen, M., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, Vol. 76, Iss. 2, pp. 323–329.
- Jensen, M.C., 1993. The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance* 48, 831–880.
- Jensen, M., and W. Meckling, 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305–360.
- Kanodia, C., and D. Lee, 1998. Investment and disclosure: the disciplinary role of periodic performance reports. *Journal of Accounting Research* 36, 33–55.
- Kothari S.P., 2000. The Role of Financial Reporting in Reducing Financial Risks in the Market.
- Lambert, R., C. Leuz, and R. Verrecchia, 2005. Accounting information, disclosure, and the cost of capital, working paper, University of Pennsylvania.

Lambert, R., C. Leuz, and R. Verrecchia. 2007. Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research* 45, 385-420.

Lerach S. William. Lerach Coughlin Stoia and Robbins LLP. 2004. The Alarming Decline In The Quality Of Financial Reporting And Upsurge In Securities Fraud.

Leuz, C., and R. Verrecchia. 2000. The economic consequences of increased disclosure. *Journal of Accounting Research* 38, 91-124.

Macdowell Samwel W.. 2001. Investment Efficiency: A Comprehensive ROI.

McNichols, M.. 2002. Discussion of the quality of accruals and earnings: the role of accrual estimation errors. *Accounting Review* 77, 61-69.

Myers, S. and N. Majluf, 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, Vol. 13, Iss. 2, pp. 187-221.

Nusbaum E. and Thornton G. Key Performance Indicators are the next step in financial reporting transparency.

Qingliang Tang, Huifa Chen, and Zhijun Lin, 2008. Financial Reporting Quality and Investor Protection: Global Investigation

Stein, J., 2003. "Agency, information and corporate investment," in *Handbook of the Economics of Finance*, edited by George Constantinides, Milt Harris and René Stulz, Elsevier, 2003, 111-165.

Stiglitz, J., Weiss, A., 1981. Credit rationing in markets with imperfect information. *American Economic Review* 71 (3), 393-410.

Teets, W., 2002. Financial Reporting Journal. *Financial Accounting and Reporting Section*.

Turner E. Lynn. 1999. Implementing Continuous Improvement in Financial Reporting.

Verdi S. Rodrigo. 2006. Financial Reporting Quality and Investment Efficiency.

Verrecchia, R.. 2001. Essays on disclosure. *Journal of Accounting and Economics* 32. 91-180.

Yoshikawa, H., 1980. On the "q" theory of investment. *American Economic Review*. Vol. 70, Iss. 4, pp. 739-43.

Zabihollah Razaee. 2003. High-quality Financial Reporting: The Six-legged Stool.

Rahman M. Zubaidur. 2001. Report on the Observance of Standards and Codes (ROSC) Kenya. Accounting and Auditing.

APPENDIX

LISTED FIRMS ON THE NSE

MAIN INVESTMENT MARKET SEGMENT

Agricultural

Kakuzi Limited

Rea Vipingo Plantations Limited

Sasini Tea & Coffee Limited

Unilever Tea Kenya Limited

Commercial and Services

Access Kenya Group

Car & General (Kenya) Limited

CMC Holdings Limited

Kenya Airways Limited

Marshalls (East Africa) Limited

Nation Media Group Limited

Scan Group Limited

Standard Group Limited

TPS (Tourism Promotion Services) East Africa limited (Serena Hotels)

Finance and Investment

Barclays Bank of Kenya Limited

CFC Bank

Diamond Trust Bank (Kenya) Limited

Equity Bank Limited

Housing Finance Company Limited

Centum Investment Company (ICDC) Limited

Jubilee Insurance Company Limited

Kenya Commercial Bank Limited

National Bank of Kenya Limited

NIC Bank Limited

Pan Africa Insurance Company Limited
Standard Chartered Bank Kenya Limited

Industrial and Allied

Athi-River Mining Limited
Bamburi Cement Company Limited
BOC Kenya Limited
British American Tobacco Kenya Limited
Crown-Berger Kenya Limited
East African Cables Limited
East African Portland Cement Company
East African Breweries Limited
Eveready East Africa Limited
Kenya Oil Company Limited
Kenya Power & Lighting Company Limited
Kenya Electricity Generating Company (KenGen)
Mumias Sugar Company Limited
Olympia Capital Holdings Limited
Sameer Africa Limited (formerly – Firestone East Africa (1969) Limited)
Total Kenya Limited
Unga Group Limited