

**EFFECT OF INTERNAL CONTROL SYSTEMS ON
FINANCIAL PERFORMANCE OF COMPANIES QUOTED
IN THE NAIROBI SECURITIES EXCHANGE**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

This research is dedicated to my wife Lucy Wamuyu, my lovely daughters; Belinda and Carol; and loving sons; Alvin and Mark, for the encouragement and motivation they have given me. May God bless you all.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
APB	Auditing Practices Board
CE	Control Environment
CMA	Capital Markets Authority
COSO	Committee of Sponsoring Organizations of the Treadway Commission
GoK	Government of Kenya
IAS	International Accounting Standards
IC	Internal Controls
ICS	Internal Control Systems
INTOSAI	International Organization of Supreme Audit Institutions
LEV	Firm Leverage
LOG	Natural Logarithm
NSE	Nairobi Securities Exchange
ROA	Return on Assets
ROI	Return on investment
RoK	Republic of Kenya
SPSS	Statistical Package for Social Science
TA	Total Assets of firm

TD	Total Debt of firm
VFM	Value for Money
WEF	World Economic Forum,

OPERATIONAL DEFINITION OF TERMS

Internal Controls Internal controls encompass a set of rules, policies, and procedures an organization implements to provide reasonable assurance that: (a) its financial reports are reliable, (b) its operations are effective and efficient, and (c) its activities comply with applicable laws and regulations (Tunji, 2013; Dhillon, 2001).

Control Environment According to COSO (2013), a control environment is the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization. The control environment comprises the integrity and ethical values of the organization; the parameters enabling the board of directors to carry out its governance oversight responsibilities; the organizational structure and assignment of authority and responsibility; the process for attracting, developing, and retaining competent individuals; and the rigor around performance measures, incentives, and rewards to drive accountability for performance.

Information and Communication According to COSO (2013), Information is necessary for the entity to carry out internal control responsibilities to support the achievement of its objectives. Management obtains or generates and uses relevant and quality information from both internal and external sources to support the functioning of other components of internal control. Communication is the continual, iterative process of providing, sharing, and obtaining necessary information. Internal communication is the means by which information is disseminated throughout the organization, flowing up, down, and across the entity. It enables personnel to receive

a clear message from senior management that control responsibilities must be taken seriously. External communication is two-fold: it enables inbound communication of relevant external information, and it provides information to external parties in response to requirements and expectations.

Monitoring Activities On going evaluations, separate evaluations, or some combination of the two (COSO, 2013) are used to ascertain whether each of the five components of internal control, including controls to effect the principles within each component, is present and functioning. Ongoing evaluations, built in to business processes at different levels of the entity, provide timely information. Separate evaluations, conducted periodically, will vary in scope and frequency depending on assessment of risks, effectiveness of ongoing evaluations, and other management considerations.

Profitability Profitability of firms is used to measure the firms' return on their investments. A study by Change (2006) suggested that financially distressed firms should take actions to internally adjust the business to increase profitability. Another scholar, Hotchkiss (1995) explored the achievement of reorganization bankrupt firms in the US of America with a focus on profitability.

Efficiency A firm's efficiency (also referred to as turnover ratios) measures how productively the firm is using its assets (Cheluguet, 2014). A firm's efficiency is measured in terms of its fixed assets turnovers, current assets turnover and net worth turnover ratios. These components indicate the firm's

viability as well as speed of turning over its assets within the year, which may determine its financial distress level.

Financial Performance Financial performance is a measure of company's policies and operations in monetary terms. It is a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Mishkin, 2007).

ABSTRACT

Internal Control Systems play an important role in every organization as it assist in realization of their financial performance goals. The main objective of the study was to determine the effect of internal control systems and financial performance of companies quoted in Nairobi securities exchange. Specifically the study was guided by the following objectives; to investigate the relationship between internal control environment, internal audit function, risk management, internal control activities, and financial performance. Most firms quoted in the Nairobi Securities exchange have registered declining performance in recent years due weakened internal control systems. Researches done relating to internal control systems and financial performance do not show directly the effect of corporate governance and regulatory systems on financial performance. The study adopted descriptive research design using both quantitative and qualitative approach. The target population was 372 senior managers in 62 companies quoted in Nairobi Securities exchange. Multi-level random sampling of 144 senior managers in various categories returned 115 (79.8%) valid responses. Survey data was collected by use of a structured questionnaire. The data obtained was analysed using both qualitative and quantitative analysis. Multiple regression models were used to test whether internal control environment, internal audit function, risk management, internal control activity and corporate governance have any influence on financial performance. It was found that internal control systems had a significant relationship with financial performance. Based on the research findings it can be concluded that internal control system is a positive significant predictor of financial performance. The findings of the study suggested that internal control systems especially risk management, corporate governance, control activity, internal control environment and control internal audit function are significant areas, management of quoted companies should give great attention to in order to improve financial performance of quoted companies. The findings are expected to be of value to the investors in NSE and form a basis for improving financial performance of companies quoted in NSE.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The chapter focuses on the background to the study in which the concept of internal control system is put into perspective. It also clearly brings out the general perception that; institution of internal control systems will always lead to improved financial performance. The chapter handles the purpose of the study which is to determine the effect of internal control systems on the financial performance of quoted companies in Nairobi Securities Exchange. The chapter also brings into focus the scope of the study as covering companies quoted in Nairobi Securities Exchange.

The companies listed at the NSE are classified into the following segments: Agricultural seven companies, Automobiles and Accessories three companies, Banking eleven companies, Commercial and Services nine companies, Construction and Allied five companies, Energy and Petroleum five companies, Growth Enterprise Market Segment two companies, Insurance six companies, Investment four companies, Manufacturing and Allied nine companies, Telecommunication and Technology one company, (NSE, 2015).Suspended companies were excluded from the study, as their current trading performance is nonexistent. The sampling method used was stratified sampling technique as the companies are heterogeneous and falls into different segments. This sampling method ensured that the sample obtained was representative of the population. The findings were then projected to the whole segments represented at NSE.

Internal Controls are processes designed and effected by those charged with governance, management, and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of the financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations (Mwindi, 2008). Tunji (2013) and Dhillon (2001) argue that internal controls

encompass a set of rules, policies, and procedures an organization implements to provide reasonable assurance that: (a) its financial reports are reliable, (b) its operations are effective and efficient, and (c) its activities comply with applicable laws and regulations. The Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013) framework looks at internal control as a process, affected by an entity's board of directors, management and other personnel, designed to provide "reasonable assurance" regarding the achievement of objectives in the following categories: Effectiveness and efficiency of operations, reliability of financial reporting, compliance with applicable laws and regulations.

The COSO framework (2013) identifies five main elements of internal control systems against which the review should take place. These include control environment, risk assessment, control activities, information and communication and monitoring. There is a general expectation that institution and enforcement of proper internal control systems will always lead to improved financial performance. The COSO (2013) framework also found out that properly instituted systems of internal control improve the reporting process and also give rise to reliable reports which enhances the accountability function of management of an entity. Internal controls are put in place to ensure safe custody of all companies' assets; to avoid misuse or misappropriation of assets and to detect and safeguard company's resources against probable frauds.

Recently a number of financial scandals have been witnessed in quoted companies both in local and international scene. For example in America, investors lost \$180 billion in World Com Scandal of 2002, \$150 million in Tyco Scandal of 2002, \$1.4 billion in Heath South Scandal of 2003 (the largest publicly traded company) and \$3.9 billion in America international Group (AIG) scandal of 2005, among several financial fraudulent activities affecting publicly quoted companies. In the early 2000s, a number of high-profile corporate accounting scandals resulted in some investors, company personnel and other stakeholders suffering significant losses. These scandals resulted in demands for a greater emphasis on corporate governance. In July 2002, the United States Congress

passed the Sarbanes-Oxley Act (SOX) in an effort to reduce public concern over a number of high profile corporate failures in the US (COSO, 2013).

Ashbaugh-Skaife, Collins, Kinney and Lafond (2008) documented that firms reporting internal control weaknesses have more complex operations; have experienced recent changes in organizational structure; are at increased exposure to accounting risks; and have fewer resources to invest in internal control. Furthermore, Doyle, Ge and McVay (2005) indicated that firms with material weaknesses have a lower earnings quality than those that do not report material weaknesses. Additionally, Hammersley, Myers and Shakespeare (2007) showed a negative market reaction to firms that had reported material weaknesses in internal control.

In South Africa, cases of accounting scandals have been recorded in Randgold and Exploration companies. In Nigeria, the managing director and chief financial officer of Cadbury Nigeria were dismissed in 2006 for inflating the profits of the company for some years before the company's foreign partner acquired controlling interest. These scandals emphasize the need to evaluate, scrutinize, and formulate systems of checks and balances to guide corporate executives in decision-making. These executives are legally and morally obliged to produce honest, reliable, accurate and informative corporate financial reports periodically (Hayes, Dassen, Schilder & Wallage, 2009).

In Kenya, Statistics available from CMA (2014) have shown that a high number of firms especially quoted companies have registered declining financial performance in the recent years. Examples include Kenya Airways which reported a loss of Ksh10 billion, Mumias Sugar Company Ksh3.4 billion loss, Uchumi Super Markets Ksh226million loss, Eveready East Africa limited Ksh248million loss, CMC Holding suspended from NSE among others. Rezaee and Zabihollah (2002) revealed that financial reporting is ineffective due to corruption, frauds, and ineffective regulations that have led to poor financial performance in publicly quoted companies. According to World Economic Forum (2013), Kenya was ranked position 106 out of 144 due to mega corporation

scandals. Some of the companies cited by the report for poor corporate governance were CMC and Centum Ltd.

Companies listed in Nairobi securities exchange are expected to have effective and efficient internal controls to provide reasonable assurance about the achievement of the entity's objective with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations. According to Capital Market Authority Act (cap.485, gazette Notice no.3362), the board of public listed company is required to maintain a sound system of internal controls to safe guard the shareholders investments and assets. Despite existence of elaborate system of internal controls in quoted companies, a number of quoted companies continue to experience financial distress which has threatened their survival in the business.

1.1.1 Internal Control Systems

The COSO (2013) Framework defines Internal Control system as “a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance’.The control environment sets the tone of an organization, influencing the control consciousness of its employees. The Committee of Sponsoring Organizations (COSO, 2013), a voluntary organization offering guidance on monitoring internal controls, report indicates that this component is the foundation for all other components of internal control, providing both discipline and structure to the organization.

The COSO (2013) framework identifies five main elements of a control system against which the review should take place. These include Control environment, Risk assessment, control activities, information and communication and monitoring. Internal control systems operate at different levels of effectiveness. Determining whether a particular internal control system is effective is a judgment resulting from an assessment

of whether the five components - Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring - are present and functioning. Effective controls provide reasonable assurance regarding the accomplishment of established objectives.

According to Feng, Li and McKay (2009), the quality of an organization internal control system has significant impact on the accuracy of management guidance. Likewise, firms that disclose ineffective internal controls system have larger tendency of experiencing management errors in their operation than those firms that report effective internal controls system. Schneider and Church (2008) in their study stated that 'effective internal controls systems are fundamental drivers toward earnings quality. In the same vein, effective internal control system has an essential role to play in a firm's success (Jokipii, 2010).

Other scholars have defined Internal control as a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of a firm's objectives in the effectiveness and efficiency of operations, reliability of financial and management reporting, compliance with applicable laws and regulations and protect the organization's reputation. Effective internal control system operates when some specific procedures are adopted by the management. International Accounting Standards categorizes internal control types as a plan of organization, segregation of duties, control of documents, safeguarding of assets, competence of staff, arithmetic and accounting controls, recording and record keeping, supervision, authorization and approvals, vocation and rotation of duties, cost feasibility, routine and automatic checks (Kaplan,2008). The above studies greatly support that effective internal controls significantly contribute to financial performance of companies.

1.1.2 Financial Performance

Financial performance is a measure of company's policies and operations in monetary terms. It is a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to Measure Company's financial performance. This may be reflected in the firm's return on investment (ROI), return on assets (ROA), value added, among others and is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues (Mishkin, 2007).

Positive financial performance in a firm can be achieved by eradicating waste in benefits services processes and systems. The "critical success factor" for a firm is the degree to which it fulfils its set objectives and mission in terms of being efficient, effective and economical. The information obtained from a sound internal control system as reflected from financial statements will provide a report on a firm's financial performance and position that is useful to a wide range of users for assessing the stewardship and making economic decisions (Davies, 2005).

Internal Control Systems are very instrumental in achieving the firm's set mission and objectives; hence Value for Money. The main approach to VFM is the firm's control over the use of resources in order to achieve its set objectives. Heads of departments should establish sound arrangements for planning, appraising, authorizing and controlling operations in order to achieve positive Financial Performance. Financial Performance and Value for Money are used to assess whether or not a firm has obtained the maximum benefit from the goods and services it acquires and/or provides, within the resources available to it ,as reflected in the audit manual of Ministry of local government of Uganda (LGIAM, 2007).

Value for Money is not paying more for a good or service than its quality or availability, justifies. A well planned public spending implies a concern with economy (cost minimization), efficiency (output maximization) and effectiveness (full attainment of the intended results). The most effective way to improve financial performance is by reducing the level of irregularity and fraud through improvements in the firm's systems of internal financial control. Shareholders need to be assured that their resources are being used efficiently and effectively in providing the right service at the least cost. Financial Performance analysis needs to pay attention to total risks and is related to concepts of efficiency and effectiveness (Deakin, 1998).

1.1.3 Internal Controls and Financial Performance

Internal control systems including internal audits are intended primarily to enhance the reliability of financial performance, either directly or indirectly by increasing accountability among information providers in an organization (Jensen, 2003). Internal control therefore has a much broader purpose such that the organization level of control problems associated with lower revenues, which explore links between disclosure of material weakness and fraud, earnings management or restatements internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for better revenue generation (Beeler, Hunton & Wier, 1999). Fadzil, Haron and Jantan (2005) asserted that an effective internal control system unequivocally correlates with organizational success in meeting its revenue target level. Effective internal control for revenue generation involves; regular review of the reliability and integrity of financial and operating information, a review of the controls employed to safeguard assets, an assessment of employees' compliance with management policies, procedures and applicable laws and regulations, an evaluation of the efficiency and effectiveness with which management achieves its organizational objectives (Ittner, Larcker & Randall, 2003).

There are three major classifications of internal controls; preventive, detective, and corrective. Preventive controls predict potential problems before they occur, make adjustments, and prevent an error, omission or malicious act from occurring. The detective controls are used to detect and report the occurrence of an omission, an error or a malicious act. Finally, the corrective controls help in ensuring that the impact of a threat is minimized, identify the cause of a problem as well as the correct errors arising from the problem. Corrective controls correct problems discovered by detective controls and modify the processing system to minimize future occurrence of the problem (Singleton, Bologna, Lindquist & Singleton, 2006).

According to CPA Australia (2008) each internal control procedure is designed to fulfil at least one of the following eight criteria: Completeness: that all records and transactions are included in the reports of business. Accuracy: the right amounts are recorded in the correct accounts. Authorization: the correct levels of authorization are in place to cover such things as approval, payments, data entry and computer access. Validity: that the invoice is for work performed or products received and the business has incurred the liability properly. Existence of assets and liabilities: Has a purchase been recorded for goods or services that have not yet been received? Do all assets on the books actually exist? Is there correct documentation to support the item? Handling errors; that errors in the system have been identified and processed. Segregation of duties; to ensure certain functions are kept separate. For example, the person taking cash receipts does not also do the banking. Presentation and disclosure: timely preparation of financial reports in conformity with generally accepted accounting principles. All internal controls, whether administrative or accounting, are linked to a financial consequence. For example, keeping records for long service leave entitlements is an administrative control but it does ultimately have a financial consequence.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE), which was formed in 1954 as a voluntary organization of brokers, is now one of the most active markets in Africa. The NSE has played a role in increasing investor confidence by modernizing its infrastructure. At the dawn of independence, stock market activity slumped due to uncertainty about the future of independence in Kenya. However, after three years of calm and economic growth, confidence in the market was rekindled and the exchange handled a number of highly over-subscribed public issues(Munga,1974).

In 1980s the Kenyan government realized the need to design and implement policy reforms to foster sustainable economic development with an efficient and stable financial system. In particular, it set out to enhance the role of the private sector in the economy, reduce the demands of public enterprise on the exchequer, rationalize the operations of the public enterprise sector to broaden the base of ownership and enhance capital markets in the formation of a regulatory body “the capital markets authority” in 1989, to assist in the creation of an environment conducive to the growth and development of the country’s capital markets Statistical Abstract,CMA (1990).The NSE was poised to play an increasing role in the Kenyan economy, especially in the privatization of state owned enterprises. In 2006 the NSE installed the automated trading system (ATS), which has resulted in high trading volumes with the daily market turnovers exceeding Ksh110 billion in some days. The implementation of the ATS provided for longer trading hours, increased trading efficiency and price discovery (Economic Survey, 2007).

The Nairobi Securities Exchange is one of the leading developing markets in the world and investing in stocks has been hyped so much that the mention of the IPO reflexively elicits a pat on the pocket. Starting with KenGen offer in May 2006, the NSE has seen tremendous growth in the number of retail investors. However, the majority of investing public is still in the dark on the operations of the stock market. Many still do not bother

to follow up on their investments, preferring to once in a while to keep the tab through media reports.

The Nairobi Securities Exchange facilitates good management of companies by asking them to give periodic reports of their performance. Providing a daily market reports and price list to ensure that investors know the worth of their assets at all times. In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange Limited. The change of name reflected the strategic plan to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments (NSE, 2013).

Corporate Governance guidelines (2002) Issued by the NSE actually recognizes the important role played by the Internal Audit function and actually gives the various best practices companies can adopt in regards to setting up an audit function. In Kenya, the internal audit function is becoming increasingly important and it's very crucial in the public sector. All listed companies are required to have an internal audit department. The board should establish an internal audit function which should be independent of the activities they audit and should be carried out with impartiality (Capital Markets Authority Act Cap. 485A, 2013).

Most of the companies quoted at the Nairobi Stock Exchange (NSE) have not adopted corporate governance guidelines and those who have, do not enforce them. The confused application of the state corporations Act, Companies act, capital market regulatory Authority Act and various circulars and directives from government authorities often create conflict structures and procedures (Bett, 2014).

1.2 Statement of the Problem

Globally, financial scandals have been witnessed triggering reaction for tighter regulation and enhanced standards for accounting and corporate governance (Sarbanes–Oxley Act, 2002). In America, scandals such World.com and Enron in year 2002 where

investors lost over \$180 billion led to enactment of Corporate and Auditing Accountability and Responsibility Act(Sarbanes–Oxley Act, 2002). These major financial scandals were caused by poor internal control systems including weak corporate governance which the Sarbanes Oxley Act of 2002, tried to address.

In Kenya, Statistics available from CMA (2013) have shown most firms especially quoted companies have continued to register declining financial performance. Examples include Kenya Airways which reported a lossksh.10billion, Mumias Sugar Company ksh.3.4 billion loss, Uchumi Super Markets ksh.226millionloss, Eveready East Africa Limited ksh.248million loss, CMC Holding suspended from NSE among others.

Data available from World Bank (2014) showed that there was decline in service in all sectors of the economy including tourism. Poor financial performance of quoted companies adversely affects the economic growth of the Kenyan economy. Most quoted companies have functional internal audit departments charged with responsibility of providing management with re-assurance that internal control systems are adequate and quality of services is in place (Institute of Internal Audit, 2009). There is however, continued poor financial performance, where budgets are not followed, rules and regulations on the use of finances are not adhered to and there is massive unaccounted for funds (Auditor General, 2008). This has put companies at risk of financial inadequacy, employee dissatisfaction and poor financial performance (Mikes & Kaplan, 2014).

In the aftermath of corporate scandals and the global financial crisis, corporate governance has received significant attention from regulators and the public. Regulatory responses have focused on increasing disclosure requirements relating to corporate governance and this has, in turn, driven increased awareness and demand for internal assurance on corporate governance processes, including internal control and risk management. Thornton (2004) observes that in recent years, stakeholder's expectations from internal audit functions have changed significantly. The focus has now moved from

a compliance and financial control function to facilitating organizations to proactively identify, assess and control risks.

Previous studies have focused on the contribution of internal control systems on financial performance of small and medium scale business enterprises (Nyakundi, Nyamita & Tinega, 2014). Mawanda (2008) researched on effects of internal control systems on financial performance in an institution of higher learning. Khamis (2013) researched on contribution of internal control systems to financial performance of financial institution. Majority of the studies involving internal controls have focused on investigating the characteristics of firms that disclose material weaknesses in internal control. Al-Matari, Al-Swidi, Faudziah and Al-Matari (2012) noted that there was notable lack of research in developed as well as developing nations regarding the direct association of internal control systems and firm performance.

In the Kenyan economy, studies done relating to internal control systems and financial performance do not show directly the effect of corporate governance and government policy on financial performance of companies. For example case study researches done by Wanjara, (2014) and Kamau, (2013). This study therefore focused on wider scope of companies quoted in the Nairobi securities exchange and sought to fill existing research gaps in determining the effect of internal control systems on financial performance of the companies quoted at NSE.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to determine the effect of internal control systems on financial performance of companies quoted in the Nairobi Securities Exchange.

1.3.2 Specific Objectives

The specific objectives of the study were:

1. To determine the effect of internal control environment on financial performance of companies quoted in Nairobi Securities Exchange.
2. To establish the effect of internal audit function on financial performance of companies quoted in Nairobi Securities Exchange.
3. To determine the effect of risk management on financial performance of companies quoted in Nairobi Securities Exchange.
4. To establish the effect of internal control activities on the financial performance of companies quoted in Nairobi Securities Exchange.
5. To assess the effect of corporate governance controls on the financial performance of companies quoted in Nairobi Securities Exchange.
6. To assess the moderating effect of government policy in the relationship between internal control systems and financial performance of companies quoted in Nairobi Securities Exchange

1.4 The Research Hypotheses

The research hypotheses of the study were:

1. H_0 : There is no relationship between internal control environment and the financial performance of companies quoted in the Nairobi Securities Exchange.
2. H_0 : There is no relationship between internal audit function and financial performance of companies quoted in the Nairobi Securities Exchange.
3. H_0 : There is no relationship between risk management control and the financial performance of companies quoted in the Nairobi Securities Exchange
4. H_0 : There is no relationship between internal control activities and financial performance of companies quoted in the Nairobi Securities Exchange.

5. H_0 : There is no relationship between corporate governance control and financial performance of companies quoted in the Nairobi Securities Exchange.
6. H_0 : There is no moderating effect of government policy in the relationship between internal control systems and financial performance of companies quoted in Nairobi Security Exchange

1.5 Justification of the Study

The study contributed to the existing body of knowledge on internal control systems and financial performance. Researchers will benefit from both theoretical literature review and the findings of this study which aimed at establishing the link between internal control systems, government policy and financial performance. This study has identified further research areas where other researchers would have an opportunity to carry out further research and grow knowledge in internal control systems and financial performance.

In addition the study offers insight into the relevance of internal control systems in enhancing corporate governance and improving financial performance in companies quoted at the Nairobi Securities Exchange. Directors and management of listed companies are expected to appreciate the importance of internal control system practices and assist in rating their level of compliance against those of their competitors. Shareholders will get to know the various mechanisms through which they can exercise their control in the management of listed companies. Potential investors will also benefit as they will be able to determine which companies are properly governed hence make more informed investment decisions.

Government and policy makers will gain insight on the critical role of internal controls in the financial performance of companies listed in the Nairobi Securities Exchange. The policy makers will be informed on the type of internal controls to incorporate in public quoted companies. Other institutions will benefit through the understanding of corporate

governance practices and the important role that the internal control systems play in enhancing corporate governance, particularly in fostering corporate accountability and transparency and effect financial performance. The management of different business organizations will also benefit from the study through the understanding of internal controls and their role in corporate governance and financial performance.

1.6 Scope of the Study

The study focuses on determining the relationship between internal control systems and financial performance of quoted companies in Nairobi Security exchange. In this study internal control system was based on control environment, internal audit function, risk management, internal control activity and corporate governance. Financial performance on the other hand focussed on net profit, return on equity and earning per share. The study targeted listed companies at the NSE in Kenya that existed over a period of the last 7 years. The study covered 38 companies quoted at the NSE as this was considered adequate sample for the population of the study which was 62 quoted companies.

1.7 Limitations of the Study

Given the scope, it is clear that both definitions of internal control system and financial performance are wide and contain a number of sub-variables. This posed a limitation to the study, since just as the definitions are wide and varied, employees who participated in the study could have rated internal control systems and financial performance differently. However, to mitigate this limitation, the study borrowed from standard existing measures that have been found reliable in measuring internal control system and financial performance to minimize respondents' bias. In addition, getting adequate information as pertains to internal control system available posed a challenge as companies had policies considering such information confidential. To mitigate this limitation, the interviewer approached the Finance Managers and Human Resources

Managers and requested for support in availing such information and assured confidentiality in handling the information provided.

1.8 Structure of the study

The proposed study comprised of five chapters. Chapter one presents the background of the study, statement of the problem, objectives of the study, research questions and hypotheses, significance of the study, limitation, scope and the structure of the study. Chapter two is a review of the supporting theories/models and empirical studies which have been done on the study objectives. The chapter went ahead to give a conceptual framework for the study. Chapter three focused on the research methodology that was employed in evaluating the relationship between internal control system and financial performance in companies quoted in Nairobi securities Exchange. This entailed the research design and philosophy, target population and sample, data collection and data analysis procedures to be used in the study. Chapter four was on data analysis and presentation while chapter five was on conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the literature advanced in the area of internal control systems on financial performance of companies. The chapter starts by reviewing various theories relevant to this study. The theories include: the systems theory, the agency theory, institutional theory, transaction theory, stewardship theory and stakeholder theory which form the basis of the concept of internal control systems. A conceptual framework is also presented based on the study's objectives. To assist in identification of existing gaps in the literature, empirical literature was reviewed in this chapter.

2.2 Theoretical Literature Review

A theory is a “set of interrelated concepts, definitions, and propositions that present a systematic view of events or situations by specifying relations among variables, in order to explain and predict the events or situations” (Van Ryn & Heaney, 1992). Theoretical literature is concerned primarily with theories or hypotheses rather than practical application. Theoretical literature begins with a formal model that seeks to explain participation patterns in terms of underlying theory (Heilbrun & Gray, 1993).

There are several theoretical approaches which can be used to outline the financial performance of companies, to select the predictors to the models, and to justify the functional form between these predictors. In this review these approaches are classified into the following categories; systemtheory, agency theory, institutional theory, transaction theory, stewardship theory and stakeholder theory.

2.2.1 Systems Theory

As cited in Keraro (2014) the systems theory was propounded in the 1940s by a biologist Ludwig von Bertalanffy and advanced by Ross Ashby in his study “Introduction to Cybernetics” in 1956. Bertalanffy (1968) emphasized that real systems were open to, and interact with, their environments, and that they can acquire qualitatively new properties through emergence, resulting in continual evolution. He argued that rather than reducing an entity or organization to the properties of its parts or elements, systems theory focused on the arrangement of and the inter-relations between the parts which connect them into a whole. Such an organization determined a system that is independent of the concrete substance of the elements (for example, the various departments such as finance, accounting, human resources, research and development). Thus, the same concepts and principles of organization underlie the different disciplines, providing a basis for their unification.

Hartman (2010) observed that the systems theory provides a leader with a tool for analysing organizational dynamics without providing a specific theory about how an organization should be managed. He also observed that with the recognition of systems theory, all organizations consist of processing inputs and outputs with internal and external systems and sub-systems helpful in providing a functional overview of any organization. Smit and Cronje (2002) observed that a system is a collection of parts unified to accomplish an overall goal. If one part of the system is removed, the nature of the system is changed as well.

The effect of the systems theory in management is that managers look at the organization from a broader perspective. Systems theory has a new perspective for managers to interpret patterns and events in the work place. They recognize the various parts of the organization, and, in particular, the interrelations of the parts, for example, the coordination of central administration with its programs, supervisors and workers, among other variables. In traditional management practices, managers typically took

one part and focused on it. They then moved all attention to another part. The problem was that an organization could, for example, have a wonderful central administration and wonderful set of teachers, but the departments didn't synchronize at all (Rue & Byars, 2004).

In using the systems theory approach, the study recognized that there are many possible roles of governance in the strategic management of companies. Bertalanffy (1968) saw organizations as a composition of its elements which together make a "whole". The key identifiable organization variables, based on this theory were the people, leadership, structures, processes, resources (human, financial and others), communication systems, position and power. All these are viewed by the systems theory as the parts that, if coordinated strategically, will lead to an effective organization. The systems theory upholds the idea that the different parts of an institution should not be managed in isolation.

Relating the foregoing discussion of the study undertaken, the systems theory thinking helped the researcher to visualize the fact that what may seem as an isolated internal problem is actually part of an interconnected network of related issues in internal control systems of quoted companies. This theory therefore supports corporate governance.

2.2.2 Agency Theory

Agency theory has been widely used in literature to investigate the information asymmetry between principals (shareholders) and agent (management). This study used the agency theory to determine the effect of internal control systems on the financial Performance of quoted companies in Nairobi securities exchange. Sarens and Abdolmohammadi (2011) state that according to the agency theory, a company consists of a set of linked contracts between the owners of economic resources (the principals) and managers (the agents) who are charged with using and controlling these resources. A significant body of work has been undertaken in this area within the context of the

principal-agent framework. The work of Jensen and Mecklin (1976) in particular as well as that of Fama (1980) is important. Agency theory identifies the agency relationship where one party, the principal, delegates work to another party, the agent.

The agency relationship can have a number of disadvantages relating to the opportunism or self-interest of the agent: For example, the agent may not act in the best interests of the principal, or the agent may act only partially in the best interests of the principal. There can be a number of dimensions to this including for example, the agent misusing their power for pecuniary or other advantage, or the agent not taking appropriate risks in pursuance of the principal's interests because the agent views those risks as not being appropriate while on the other hand the principal may have different attitudes to risks.

There is also the problem of information asymmetry whereby the principal and the agent have access to different levels of information; in practice this means that the principal is at a disadvantage because the agent has more information. The theory was therefore very relevant in this study as shareholders who are the owners of the quoted companies have delegated the responsibilities of daily running of the companies to the management who acts as their agents and hence great need for strong internal control systems to ensure shareholders and other stakeholder's interests are adequately safeguarded. The theory therefore supports existence of control environment, internal audit and risk management.

2.2.3 Institutional Theory

Institutions are social structures that have attained a high degree of resilience. They are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life. Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines and artefacts. Institutions operate at different levels of jurisdiction, from the world system to localized interpersonal relationships.

Institutions by definition connote stability but are subject to change processes, both incremental and discontinuous. Institutional and neo-institutional theory suggests that adoption of organizational practices and environmental alignment is an institutional process subject to the effect of three pressures or forces – coercive, mimetic and normative. This theory further suggests that these forces can encourage organizations to adopt similar strategic actions thereby leading to organizational homogeneity (Adebanjo, Ojadi, Laosirihongthong & Tickle, 2013). The interests of shareholders have been strengthened over time, especially through efforts by the government and professional bodies. More specifically, there has been increased pressure on management to ensure that an organization is governed efficiently, effectively and economically for the benefit of shareholders. Much of this pressure has been a result of social expectations in response to recent corporate scandals (Christopher, Sarens & Leung, 2009). This study draws on institutional theory, which essentially points that organizational management and control structures tend to conform to social expectations. The theory therefore advances argument for enhanced corporate governance in management of organizations resources.

2.2.4 Stewardship Theory

Stewardship theory has its roots from psychology and sociology and is defined by Davis, Schoorman and Donaldson (1997) as “a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward’s utility functions are maximized”. Unlike agency theory, stewardship theory stresses not on the perspective of individualism (Donaldson & Davis, 1991), but rather on the role of top management being as stewards, integrating their goals as part of the organization. The stewardship perspective suggests that stewards are satisfied and motivated when organizational success is attained. Argyris (1973) argues that while agency theory looks at an employee or people as an economic being, which suppresses an individual’s own aspirations, on the other hand Donaldson and Davis (1991) argue that stewardship theory recognizes the importance of structures that empower the steward and offers maximum

autonomy built on trust. It stresses on the position of employees or executives to act more autonomously so that the shareholders "returns" are maximized. Indeed, Fama (1980) contend that executives and directors are also managing their careers in order to be seen as effective stewards of their organization, whilst, Shleifer, Andlei and Vishny (1997) claims that managers return finance to investors to establish a good reputation so that they can re-enter the market for future finance.

Meckling and Jensen (1994) further state the cost incurred to curb agency problems (reducing information asymmetries and accompanying moral hazards) is less when owners directly participate in the management of the firm as there is a natural alignment of owner managers' interest with growth opportunities and risk. It follows from the above that stewardship theory unlike agency theory is a complete contrast and doesn't emphasize on the need to incur monitoring or agency cost which includes establishing an internal audit function. Nevertheless Donaldson and Davis (1991) further note that returns are improved by having both of these theories combined rather than separated which implies that management must strike a balance. In our study the steward theory is supported by the fact that managers of quoted companies act as stewards of shareholders, suppliers, creditors, consumers and employees of the quoted companies.

2.2.5 Stakeholder Theory

This theory was originally detailed by Freeman (1984) in the book 'Strategic Management: A Stakeholder Approach'. The theory identifies and models the groups which are stakeholders of a corporation. It is a theory of organizational management and business ethics that addresses morals and values in managing an organization.

In the traditional view of the firm, the shareholder view, the shareholders or stockholders are the owners of the company, and the firm has a binding fiduciary duty to put their needs first, to increase value for them. Stakeholder theory argues that there are other parties involved, including employees, customers, suppliers, communities,

governmental bodies, political groups, trade associations, and trade unions. Even competitors are sometimes counted as stakeholders - their status being derived from their capacity to affect the firm and its stakeholders. The nature of what is a stakeholder is highly contested (Miles, 2012), with hundreds of definitions existing in the academic literature.

More recent scholarly works on the topic of stakeholder theory that exemplify research and theorizing in this area include Donaldson and Preston (1995), Mitchell, Agle, and Wood (1997), Friedman and Miles (2002), and Phillips (2003). Donaldson and Preston (1995) argued that the theory has multiple distinct aspects that are mutually supportive: descriptive, instrumental, and normative. The descriptive approach is used to describe and explain the characteristics and behaviors of firms, including how companies are managed, how the board of directors considers corporate constituencies, the way that managers think about managing, and the nature of the firm itself. The instrumental approach uses empirical data to identify the connections that exist between the management of stakeholder groups and the achievement of corporate goals (most commonly profitability and efficiency goals). The normative approach, identified as the core of the theory by Donaldson and Preston (1995), examines the function of the corporation and identifies the "moral or philosophical guidelines for the operation and management of the corporation.

Mitchell, *et al.*, (1997) derived a typology of stakeholders based on the attributes of power (the extent a party has means to impose its will in a relationship), legitimacy (socially accepted and expected structures or behaviors), and urgency (time sensitivity or criticality of the stakeholder's claims). By examining the combination of these attributes in a binary manner, 8 types of stakeholders are derived along with their implications for the organization. Friedman and Miles (2007) explore the implications of contentious relationships between stakeholders and organizations by introducing compatible/incompatible interests and necessary/contingent connections as additional attributes with which to examine the configuration of these relationships. Phillips (2003)

distinguishes between normatively legitimate stakeholders (those to whom an organization holds a moral obligation) and derivatively legitimate stakeholders (those whose stakeholder status is derived from their ability to affect the organization or its normativity).

Blattberg (2004), political philosopher criticized stakeholder theory for assuming that the interests of the various stakeholders can be, at best, compromised or balanced against each other. He argues that this is a product of its emphasis on negotiation as the chief mode of dialogue for dealing with conflicts between stakeholder interests. He recommends conversation instead and this leads him to defend what he calls a 'patriotic' conception of the corporation as an alternative to that associated with stakeholder theory.

Stakeholder Theory is relevant to our study as it gives an idea about how business really works. It says that for any business to be successful it has to create value for customers, suppliers, employees, communities and financiers, shareholders, banks and other people with the money. It clearly states that you can't look at any one of their stakes or stakeholders if you like, in isolation. Their interest has to go together, and the job of a manager or entrepreneur is to work out how the interest of customers, suppliers, communities, employees and financiers go in the same direction. Each one of these groups is important to the success of a business, and figuring out where their interests go in the same direction is what the managerial task and the entrepreneurial task is all about. One of the most recent application of the Stakeholders Theory is Enterprise Risk Management which seeks to strategically consider the interactive effects of various risks within the stakeholders' appetite (Beasley, Chen, Nunez, & Wright, 2006).

2.3 The Conceptual Framework

Miles and Huberman (1984) define a conceptual framework as the current version of the researcher's map of the territory being investigated. Implicit in their view is that conceptual frameworks may evolve as research evolves. Their notion accommodates

purpose (boundaries) with flexibility (evolution) and coherence of the research (plan/analysis/conclusion) which all stem from conceptual frameworks. Mugenda and Mugenda (1999) also view a conceptual framework as a hypothesized model identifying the model under study and the relationships between the dependent variable and independent variables. A researcher conceptualizes the relationship between variables in the study and shows the relationship graphically or diagrammatically. Newsman (1994) stated that in a conceptual framework, descriptive categories are systematically placed in broad structure of explicit prepositions, statement of relationships between two or more empirical properties (variables) to be accepted or rejected. A variable according to Kothari (2003) is a concept, which can take on qualities of quantitative values. Lumley (1994) sees a variable as an attribute or qualities of the cases that are recorded or measured. A dependent variable is the outcome variable, the one that is being predicted. Variation in the dependent variable is what the researcher tries to explain. The independent variables also known as the predictors or explanatory variables are factors that explain variation in the dependent variable (Allison, 1996).

This overall objective of the study is conceptually and diagrammatically represented in figure 2.1.

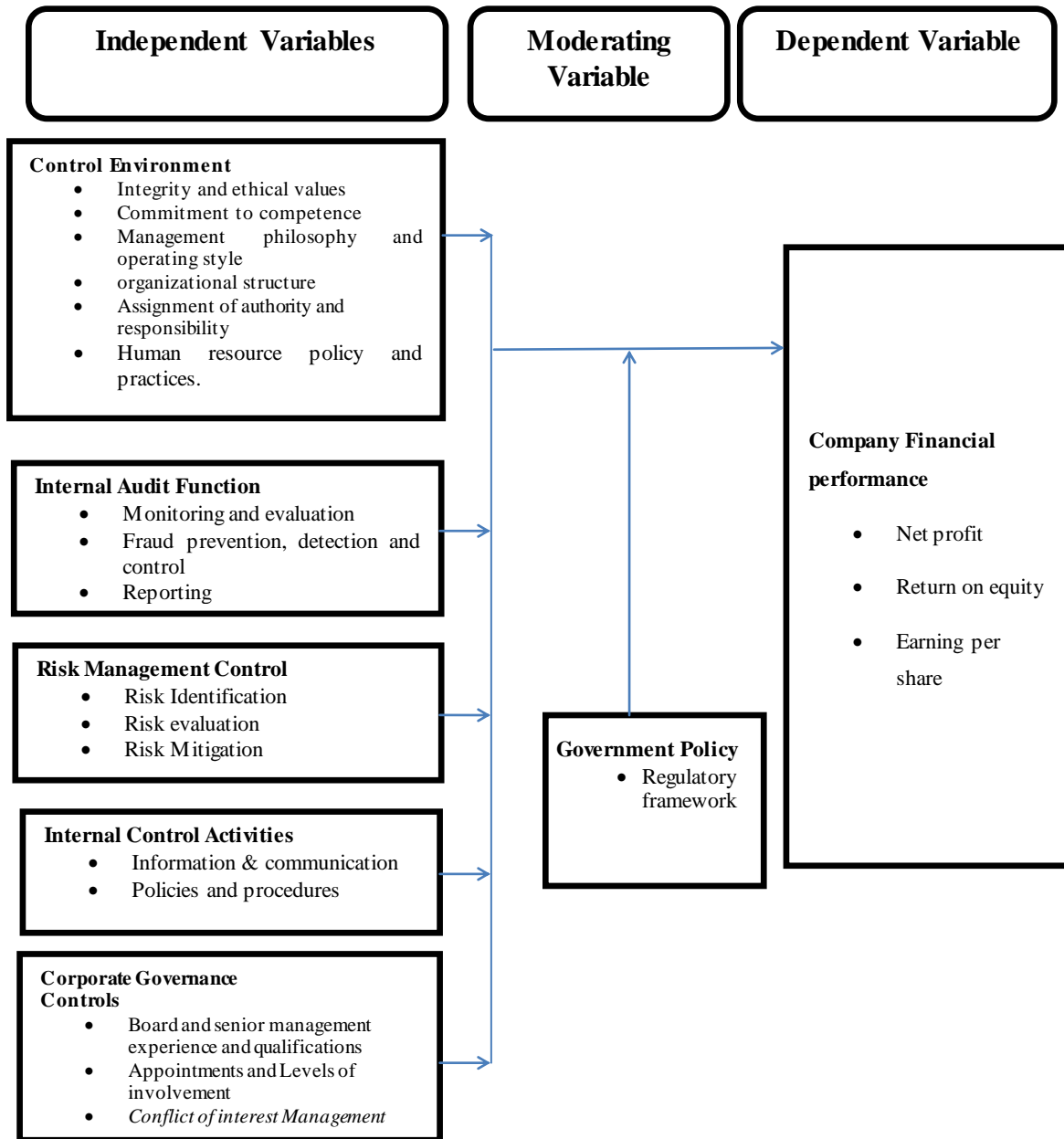


Figure 2.1: Conceptual Framework

2.4 Empirical Literature Review

The empirical evidences on the internal control systems and its effect on financial performance are discussed per each variable of the study. Literature reviews are designed to provide an overview of sources while researching a particular topic and to demonstrate to readers how the research fits into the larger field of study (Creswell, 2003).

2.4.1 Measurement of Financial Performance of Companies

Dixon, Nanni and Vollmann (1990) said that appropriate performance measures are those which enable organizations to direct their actions towards achieving their strategic objectives. Reid and Ashelby (2002) contends that performance is measured by either subjective or objective criteria, arguments for subjective measures include difficulties with collecting qualitative performance data from small firms and with reliability of such data arising from differences in accounting methods used by firms.

In order to survive and succeed in a competitive market, firms must focus on maximizing profit or they will eventually be driven out of business (Dutta & Radner, 1999). Jovanovic (1982) supports this claim by saying that only efficient firms stay in the market, and that less productive firms will eventually exit many markets. Performance measures provide a mechanism for the organization to manage its financial and non-financial performance. Accountability is increased and enhanced, ensuring that projects support the organizational strategy and that better services and greater satisfaction are provided to a customer.

Whittington and Kurt (2001) found out that objective performance measures include indicators such as profit growth, revenue growth, return on capital employed. Financial consultants Stern Stewart and Co. created Market Value Added (MVA), a measure of the excess value a company has provided to its shareholders over the total amount of their investments (John & Morris, 2011). This ranking is based on some traditional

aspects of financial performance including: total returns, sales growth, profit growth, net margin, and return on equity.

Dwivedi (2002) argues that other financial measures should include value of long-term investment, financial soundness, and use of corporate assets. John and Morris (2011) discussed accounting based performance using three indicators: return on assets (ROA), return on equity (ROE), and return on sales (ROS). Each measure is calculated by dividing net income by total assets, total common equity, and total net sales, respectively. The study assessed company financial performance using the following indicators as used by the various scholars discussed in previous studies; profitability, return on equity and earnings per share.

2.4.2 Control Environment and Financial Performance

According to COSO, the control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors.

The control environment, as established by the organization's administration, sets the tone of an Institution and effects the control consciousness of its people. Management attitude should be committed to ethical business practices and to following the established control procedures. This is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include: Integrity and ethical values; the commitment to competence; leadership philosophy and operating style; and the way management assigns authority and responsibility, and organizes and develops its people (Whittington & Pany, 2001).

A study by Khamis (2013) found out that there is a significant positive relationship between internal control system (control environment) and financial performance of financial institution. In his research Mawanda (2008) established that there is a positive relationship between control environment and financial performance of institutions of higher learning in Uganda as portrayed by his case study of Uganda Martyrs University.

2.4.3 Internal Audit Function and Financial Performance

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (institute of internal Auditor). Gupta (2001) asserts that "Internal audit is an independent appraisal function established within an Organization to examine and evaluate its activities as a service to the organization".

The objective of internal audit is to assist members of the organization in the effective discharge of their responsibilities. It's also an independent appraisal function established within an organization to examine and evaluate the effectiveness, efficiency and economy of managements control system (Subramaniam, 2006). Its objective is to provide management with re-assurance that their internal control systems are adequate for the need of the organization and are operating satisfactorily (Reid & Ashelby, 2002). It is a component of the internal control system set-up by management of an enterprise to examine, evaluate and report operations of accounting and other controls. The quality and effectiveness of internal audit procedures in practice are necessary since internal auditors cover a wide variety of assignments, not all of which will relate to accounting areas in which the external auditor is interested.

Emasu (2007) notes that "The effectiveness of internal audit function partly depends on, legal and regulatory framework, placement of the function and its independence,

existence of audit committees, resources allocated to the function and professionalism of internal audit staff'. It is however a bitter reality that internal audit departments are rarely adequately facilitated. Regarding the size and facilitation of the internal audit function, Gerrit and Mohammad (2010) found evidence in support of the monitoring role of the internal audit function. They specifically found evidence that management ownership is positively related to the relative size of the Internal Audit Function, which is inconsistent with traditional agency theory arguments that predict a negative relationship, but more in line with recent studies on earnings management.

This finding suggests that increased management ownership may influence the board of directors to support larger internal audit functions to allow them to closely monitor managers' performance. Effectiveness of internal audit procedures is a measure of the ability of the programme to produce a desired effect or a result that can be qualitatively measured (Harvey, Leinicke, Rexroad & Ostrosky, 2004). Rezaee and Zabihollah (2002) argue that there should be effective internal audit procedures to ensure reliability of financial statements, operational reports, safeguarding corporate assets and effective organizational controls.

2.4.4 Risk Management and Financial Performance

Enterprise Risk Management (ERM) was developed by COSO in 2004 to address risk management issues related to an organization. The frame encompasses all component of internal control frame work, but adds also the components of objective setting, event identification and risk response (Rittenberg & Schwieger, 2005). COSO (2011) emphasizes the importance of objective setting in the entity and relates it to risk assessment as a precondition. However it should be emphasized that the company internal control framework should be established in order to have reasonable assurance to achieve established objective, risk identification and analysis as the critical components. In evaluating the effectiveness of internal control activities, it is essential to assess them against entity's objectives and related risks.

Internal control should provide for an assessment of the risks the agency faces from both internal and external sources. Once risks have been identified, they should be analysed for their possible effect. Management then has to formulate an approach for risk management and decide upon the internal control activities required to mitigate those risks and achieve the internal control objectives of efficient and effective operations, reliable financial reporting, and compliance with laws and regulations. The objective of financial reporting and performance in the entity, the production of accurate, complete, relevant, timely and reliable financial information to demonstrate and maintain accountability, to meet statutory reporting requirements, to account for an organization's stakeholders for its financial performance. Cebenoyan and Strahan (2004) in their study found that banks which have advanced in risk management had greater credit availability. The greater credit availability leads to the opportunity to increase the productive assets and bank's profit.

Schroek (2002) and Nocco and Stulz (2006) stress the importance of good risks management practices to maximize firms' value. In particular, Nocco and Stulz (2006) suggests that effective enterprise risk management (ERM) have a long-run competitive advantage to the firm (or banks) compared to those that manage and monitor risks individually. Schroek (2002) proposes that ensuring best practices through prudent risk management result in increased earnings.

The survival and success of a financial organization depends critically on the efficiency of managing these risks (Khan & Ahmed, 2001). More importantly, good risk management is highly relevant in providing better returns to the shareholders (Akkizidis & Khandelwal, 2008; Al-Tamimi & Al-Mazrooei, 2007). In addition, prudent risk management by financial institutions is the hallmark to avoid financial distress that could lead to a full blown financial crisis.

2.4.5 Control Activities and Financial Performance

Whittington and Pany (2001) asserts that control activities are another component of internal controls. These scholars note that control activities are policies and procedures that help ensure that management directives are carried out. Controls activities in an organization basically comprise; performance reviews (comparing actual performance with budgets, forecasts and prior period performance), information processing (necessary to check accuracy, completeness and authorization of transactions), physical controls (necessary to provide security over both records and other assets), and segregation of duties (where no one person should handle all aspects of a transaction from the beginning to the end).

2.4.6 Corporate Governance and Financial Performance

Corporate governance has recently received much attention due to Adelphia, Enron, WorldCom, and other high profile scandals, serving as the impetus to such recent U.S. regulations as the Sarbanes-Oxley Act of 2002, considered to be the most sweeping corporate governance regulation in the past 70 years (Byrnes, Nanette, Dwyer, Henry & Thornton, 2003). Bebchuk, Ferrell and Cohen (2004) show that firms with stronger stockholder rights have higher Tobin Q's, their proxy for firm value, suggesting that better-governed firms are more valuable.

With so many recent regulations focusing on corporate governance, such as those based on the Sarbanes-Oxley Act and the recent stock listing standards imposed by major U.S. exchanges, there is a widely held view that better corporate governance is associated with better firm performance, but the evidence is tenuous (LeBlanc and Gillies, 2003). The above literature review firmly support that internal control systems have a direct influence of the financial performance of the firms and this study will therefore seek to establish the effect of internal control systems to financial performance of companies quoted in Nairobi stock exchange.

2.4.7 Government Policy and Financial Performance

Government policy can be used to describe any course of action by the government which intend to change a certain situation. Government uses policies to tackle a wide range of issues which include operation of law and regulations, taxes, interest rates and market control. These tools of the government can directly or indirectly influence the financial performance of organizations (Salamon, 2002).

2.5 Summary of Literature Review

From the literature reviews done it has been found out that realization of positive financial performance and value for money depends on whether firms have effective Internal Control systems. Non-compliance to the internal controls is one of the major hindrances to the attainment of positive financial performance in firms listed in NSE. Whereas a lot has been done on control environment and control activities and internal audit there is little done about corporate governance and government policy in relation to Financial Performance of a firm. There is hence need to establish the relationship between the internal control systems and financial performance of companies listed at NSE. It can be concluded from the literature that Control Environment, Internal Audit function, Risk Management, Control Activities, Risk and Corporate governance are significant predictors of financial performance.

2.6 Critique of Literature Review

A number of researches have been done relating to internal control and financial performance of organization. Muhammad (2015) researched on effect of internal audit function and internal control system on financial performance of an institution of higher education in Pakistan. The findings were that there was a positive relationship between internal audit, internal control environment and financial performance of higher education institution. The research focused on 3 elements of internal control that is internal audit, internal control environment and failed to show the contribution of risk

management and corporate governance in the financial performance of a company. The research also focused on a specific institution which limit the application of research to other companies' which exhibit different operational characteristics. Mugo (2013) studied on effect of internal control on financial performance of technical training institutions. Although he found a positive relationship ship between internal control and financial performance, the research failed to show the effect of corporate governance and government policy on financial performance of companies.

Mawanda (2008) did a research on effect of internal control systems on financial performance of an institution of higher learning in Uganda and focused on internal control environment, internal activities and internal audit. The research failed to show the contribution of risk management and corporate governance on financial performance of the company. Kamau (2013) did a study of effects of internal control on financial performance of manufacturing firms in Kenya. The research also failed to clearly show the contribution of corporate governance and government policy on the financial performance of companies. Most of the researches done on internal controls are case studies and focus on specific institutions/companies that exhibit particular characteristics or material weakness in the internal control systems.

2.7 Research Gap

In the aftermath of corporate scandals and the global financial crisis, corporate governance has received significant attention from regulators and the public. Regulatory responses have focused on increasing disclosure requirements relating to corporate governance and this has, in turn, driven increased awareness and demand for internal assurance on corporate governance processes, including internal control and risk management. Thornton (2004) observes that in recent years, stakeholder's expectations from internal audit functions have changed significantly. The focus has now moved from a compliance and financial control function to facilitating organizations to proactively identify, assess and control risks.

In a final adopted report issued on August 3, 2012 by the Board of the Capital markets authority regarding the investigation into the affairs of CMC Holdings Ltd, The CMA Management raised a complaint with the Institute of Public Certified Accountants of Kenya (ICPAK) in relation to the conduct of Deloitte as the external auditors. They stated that Auditors of CMCH (Messrs. Deloitte) ought to have pointed out the deficiencies highlighted especially with respect to the preparation of financial statements contrary to the IFRS. However, according to the IASs the role of the external auditor is not to unearth frauds and irregularities in organizations but to carry out the work with a skepticism mind and report any if they encounter. The internal auditor should be aware of any irregularities even before the external auditor finds out. This means that the audit committee would have been made aware also through the internal audit reports (RoK, 2013).

Hutchinson and Zain's (2009) study involved the examination of the relationship between internal (audit experience and accounting qualification) audit and firm performance (ROA) with growth opportunities and audit committee independence in Malaysia. They recommended future research to consider different factor models that may impact quality of internal audit and improve corporate governance. Their study has two future recommendations. First, future studies should examine the role of the board and the interaction between internal audit quality and audit committee independence. Secondly, this study encourages future studies to look into alternate models of factors that would possibly impact IAQ and improve corporate governance.

There is a notable lack of research in developed as well a developing nations regarding the direct association of internal controls and firm performance. More specifically, among these few studies is the one conducted by Al-Matari *et al.* (2012) who investigated the association between the board characteristics and performance of Kuwaiti firms. They called for future researchers to examine the relation between internal controls and firm performance, both directly and indirectly, or in light of a moderating effect. The current study thus aimed to answer the question; does a

relationship exist between effectiveness of internal control systems and financial performance of companies listed in Nairobi Securities Exchange (NSE)?

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology and research design that was adopted in conducting the research study and collecting the desired data. The chapter defines the target population of the study, the sampling size to be used, sampling procedure to be followed as well as the type of instrument that were used. The data collection procedures and data analysis techniques used in analysing the results of the study are also discussed. This research study used both descriptive and quantitative data.

3.2 Research Design

A research design is a road map or a plan of research to be used to answer the research questions and research objectives. It is the structure or framework to solve a specific problem. It gives direction and systematizes the research. It refers to the process that the investigator will follow from the inception to completion of the study (Cooper & Schindler, 2011; Kothari, 2011; Mugenda, 2012; Mugenda & Mugenda, 2003). A research design is the determination and statement of the general research approach or strategy adopted/or the particular project. It is the heart of planning. If the design adheres to the research objective, it will ensure that the client's needs will be served. Orodho (2003) simplifies the definition by stating that a research design as the scheme, outline, or plan that is used to generate answers to research problems.

This study adopted a survey research design. A survey research design is a process of collecting information from a sample of people who have been selected to represent a defined target population. In survey research design, a researcher collects information that describes, explores, and quantifies social phenomena, particularly issues, conditions and problems that are prevalent in the society at a particular point in time (Mugenda & Mugenda, 2012; Cooper & Schindler, 2011).The study collected information relating to

internal control systems and financial performance in companies listed at NSE. The variables that were examined includes: control environment, internal audit functions, risk management control, internal control activities corporate governance and moderating effect of government policy

This study adopted a survey design because it was easy and convenient to be conducted through interviews or questionnaire instruments, or both. In this study, both instruments, i.e. self-administered interview guides and questionnaires were employed as appropriate.

3.3 Population

Kombo and Tromp (2011) define a population as a group of individuals, objects or items from which samples are taken for measurement. Cooper and Schindler (2011) observe that population is the total collection of elements about which one wants to make inferences. Kothari (2011) defines population as the researcher's 'universe.' There are 62 publicly listed companies as per the list obtained from the NSE; April 2015 and all the 62 companies which were active for the last seven years was taken as the population.

Target population refers to the entire group of objects of interest from whom the researcher seeks to obtain the relevant information for the study (Cooper & Schindler, 2011; Kothari, 2011; Oso & Onen 2011; Kombo & Tromp, 2011). They contend that a population of study should possess characteristic that meet a researcher's study interests. The population of this study focused on the companies quoted in the NSE. According to the list obtained from the Nairobi Securities

Exchange (2015) there are a total of 62 quoted companies in NSE. These companies are further subdivided into categories which included: Agricultural (7), Automobiles and Accessories (3), Banking (11), Commercial and Services (9), Construction and Allied (5), Energy and Petroleum (5), Growth Enterprise Market Segment (2), Insurance (6), Investment (4), Manufacturing and Allied (9) Telecommunication and Technology (1),

(NSE, 2015). The target population was classified into above strata for fair representation of the population by the sample as shown in Table 3.1. The unit of analysis were the quoted companies in the NSE. (See appendix 4).

Table 3.1: Target Population

Category	Number	Percentage
Agricultural	7	11.3
Automobiles and Accessories	3	4.8
Banking	11	17.7
Commercial and Services	9	14.5
Construction and Allied	5	8.1
Energy and Petroleum	5	8.1
Growth Enterprise Market Segment	2	3.2
Insurance	6	9.7
Investment	4	6.5
Manufacturing and Allied	9	14.5
Telecommunication and Technology	1	1.6
Total	62	100

3.4 Sampling Frame

The sampling frame comprises of a comprehensive list of all the sampling units from which a sample could be selected. A sampling frame is required to define the universe (population). The frame (data sources) could be a list from households, establishments, and industries with detailed addresses, products produced and/or consumption, expenditure, revenue data, and so on.(Kothari, 2011). In Kenya, Nairobi Securities Exchange keeps records of all quoted companies and the researcher obtained the list from the institution.

3.5 Sample Size and Sampling Technique

According to Kothari (2011), sampling may be defined as the selection of parts of an aggregate or totality on the basis of which judgment or inference about the aggregate or totality is made. It is the process of obtaining information about an entire population by examining only a part of it. Mugenda and Mugenda (2003, 2012), Mugenda (2008), Oso and Onen (2011), Copper and Schindler (2011) and White (2000) argue that sampling is commonly used in inferential statistics to make predictions on the behaviour of the population. Using sampling techniques, a researcher is guaranteed that the characteristics of the population are accurately reproduced in the sample.

The study used stratified random sampling technique since the population was not homogeneous and could be subdivided into groups or strata to obtain a representative sample. Stratified random sampling involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup making it possible to make reliable estimates for each stratum as well as for the population as a whole (Cooper & Schindler, 2003). Stratified sampling will be employed whereby the following procedure was followed: Agricultural (7), Automobiles and Accessories (3), Banking (11), Commercial and Services (9), Construction and Allied (5), Energy and Petroleum (5), Growth Enterprise Market Segment (2), Insurance (6), Investment (4), Manufacturing and Allied (9) Telecommunication and Technology (1), (NSE, 2015).

In order to arrive at the number of listed companies to be sampled, the formulae

$n = (z^2 pq)/d^2$ was applied. This is in line with Mugenda and Mugenda(2003) statistical technique for selecting a sample from a population of less than ten thousand. The model is derived as follow:

$$n = (z^2 pq)/d^2$$

Where:

n = is the desired sample size when the target population is $> 10,000$.

z = standardized normal deviations at a confidence level of 95% which is 1.96.

p = the proportion in the target population that assumes the characteristics being sought. In this study, a 50:50 basis is assumed which is a probability of 50% (0.5).

q = The balance from p to add up to 100%. That is $1-P$, which in this case will be $1 - 50\%$ (0.5).

d = Significance level of the measure, that is at 90% confidence level the significance level is 0.1

Using the above formulae, the number of companies to be sampled was calculated as below.

$$n = (1.96^2 \times 0.5 \times 0.5) / (0.1)^2 = 96$$

Target population in this study is less than 10,000, thus the sample of 96 was adjusted using the formula below (Mugenda & Mugenda, 2003).

$n_f = n / (1 + n/N)$ where n_f is the desired sample size when sample size is less than 10,000 and n is the sample size when the target population is more than 10,000. N is the target population size.

$$n_f = n / (1 + n/N) = 96 / (1 + 96/62) = 38$$

Using the above formulae the number of companies to be sampled were reduced to thirty eight (38) and thereafter purposive sampling technique was used to select them from the strata. By apportioning the companies in every strata, the number of companies to be sampled in every strata was calculated as follows;

Agricultural (7), $7/62 \times 38 = 4$

Automobiles and Accessories (3), $3/62 \times 38 = 2$

Banking (11), $11/62 \times 38 = 7$

Commercial and Services (9), $9/62 \times 38 = 6$

Construction and Allied(5) $5/62 \times 38 = 3$

Energy and Petroleum (5), $5/62 \times 38 = 3$

Growth Enterprise Market Segment (2), $2/62 \times 38=1$

Insurance (6), $6/62 \times 38 = 3$

Investment (4), $4/62 \times 38= 2$

Manufacturing and Allied (9) $9/62 \times 38 = 6$.

Telecommunication and Technology (1), $1/62 \times 38 = 1$.

This gives a total of 38. The sample distribution of companies is in the table 3.2 below.

Table 3.2: Sample Distribution for Companies and Respondents

Market Segment	No. of Companies	Stratum	Stratum
		Sample Size	Percentage
Agricultural	7	4	10.52
Automobiles	3	2	5.26
Banking	11	7	18.42
Commercial and Services	9	6	15.79
Construction and Allied	5	3	7.89
Energy and Petroleum	5	3	7.89
Growth Enterprises	2	1	2.63
Insurance	6	3	7.89
Investment	4	2	5.26
Manufacturing	9	6	15.79
Telecommunication	1	1	2.63
Total	62	38	100

From the 38 companies earmarked for sampling, the study targeted 6 key Senior Managers in every company who head various key departments/functions namely Chief Executive officer, Head of Finance, Head of Audit and Risk, Head of Human Resources, Head of IT and Head of Legal unit. The interest of this population was driven by the fact that this category of the managers are the key custodian and owners of the internal control systems and above all they have great knowledge and expertise on the working of internal control systems in their companies. Following this the number for sample respondent in the study was calculated as follows:

Number of Company to be sampled (38) *Number of Managers (6) =228.Using the formulae $(n = (z^2pq)/d^2)$ and further enhancing the sample size by formulae $n_f = n/(1+n/N)$, the number was adjusted from 228 to 144 manager as shown in table 3.3

below. This is in line with Mugenda and Mugenda(2003) statistical technique for selecting a sample from a population of less than ten thousand.

Table 3.3: Sample Distribution for Companies and Respondents

Market Segment	Companies sampled	No Managers	of Sample Respondents
Agricultural	4	24	15
Automobiles	2	12	8
Banking	7	42	26
Commercial Services	and 6	36	23
Construction and Allied	3	18	11
Energy and Petroleum	3	18	11
Growth Enterprises	1	6	4
Insurance	3	18	11
Investment	2	12	8
Manufacturing	6	36	23
Telecommunication			
	1	6	4
Total	38	228	144

3.6 Data Collection Instrument

The study collected both the primary and secondary data. Primary data was collected using a structured questionnaire which comprised of two sections. The first part collected information on demographic characteristics of the respondent, while the second part consisted of questions where the variables of the study were focused. The structured questions were used in an effort to conserve time and money as well as to facilitate easier analysis of data. Unstructured questions were also included the questionnaire to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information.

3.7 Data Collection Procedure

Questionnaire method was used for primary data collection. A semi-structured questionnaire was self-administered to Senior Managers of the 38 out of the 62 listed companies at the Nairobi Securities Exchange. This drop-off self-administered questionnaire though costly, was strategically chosen with reference to the Kenyan context, directly presenting the questionnaire to the respondent is considered socially responsible as respondents prefer face to face contact to avoid suspicion. The social relationship between the researcher and the respondent motivates the respondent to trust the source and to get down straight to answering the questionnaire. Secondary data was obtained from the analysis of company's audited annual reports. This secondary data collected, was used to support the findings on the primary data and provide more information that may have not been captured by the respondents.

3.8 Pilot Testing

Pilot study enables the researcher to assess the clarity of the instruments and its ease of use. According to Mugenda and Mugenda (2003) pretesting allows errors discovery as well as acting as a tool of training research team before the actual collection of data begins. They therefore argue that effective revision is the result of determining participant interest, discovering if the questions have meaning for the participant modification of a questions intent, examining questions continuity and flow, experimenting with question sequencing patterns, collecting early warning data on item variability and fixing the length and timing of the instrument. Prior to actual collection of data, a pilot testing was conducted to obtain some assessment of the questions' validity and the likely reliability of the data that was collected. It is during the pre-test of the instrument that the researcher is able to assess the clarity of the instrument and the ease of use of the instrument (Mugenda & Mugenda, 1999).

The information collected during the pilot study was used to undertake a preliminary analysis to enable the research questions to be answered. In order to minimize the possible instrumentation error and hence increase the reliability of the data collected, the reliability of the pre-test observation schedule was tested using internal consistency technique. This was determined using scores obtained from individual managers from quoted companies which did not form part of the respondents of this study. This is because pre-tests subjects do not need to comprise potential respondents but should be chosen from persons with similar characteristics as the respondents (Babbie, 2001).

Cronbach's Coefficient Alpha was then computed using statistical package for social sciences (SPSS version 2.1) to determine how items correlate among themselves. Cronbach's Alpha is a general form of the Kuder-Richardson (K-R) 20 formulas used to assess internal consistency of an instrument based on split-half reliabilities of data from all possible halves of the instrument. It reduces time required to compute a reliability coefficient in other methods (Mugenda & Mugenda, 1999).

3.8.1 Data Validity

In addressing the question on the characteristics of a good measurement tool in research, Cooper & Schindler (2011) argued that the tool should be an accurate counter or indicator of what the research is interested in measuring. Besides, the instrument should be easy and efficient to use. Such a measurement tool would, thus, be subjected to tests of validity (the extent to which a test measures what the researcher wishes to measure, reliability (the accuracy and precision of a measurement procedure) and practicality (concerns factors of economy, convenience and interpretability).

Content validity of a measuring instrument is the extent to which it provides adequate coverage of investigative objectives of the study. Therefore, to ensure that the research instruments collect the desired data, it was important to validate them before they were

administered to the sample population, different means of validity were used to validate them which include content and face validity.

Mugenda and Mugenda (2012) define content validity as the degree to which the sample test or instrument items represent the content that the instrument is designed for while face validity is the degree to which an instrument appears to measure what it is supposed to measure. To ensure validity of the instrument, the instrument was given to the supervisors, colleagues, and other experts in research to check on content and validity. This helped to determine the degree to which the instrument gathered the intended information. The feedback from the supervisors, colleagues, and other researchers and scholars was used to make the necessary adjustments on the instrument for instance by removing the ambiguous items, spelling mistakes and other typographical errors that could have been made.

3.8.2 Data Reliability

The coefficient alpha is an appropriate measure of variance “attributable to subjects and variance attributable to the interaction between subjects and items” (Zikmund, Babin, Carr & Griffin, 2010). Accordingly the coefficient alpha or Cronbach’s alpha was used as a measure of internal reliability. In terms of the specific testing of internal reliability, the following scores were obtained in terms of the testing of the Cronbach’s alphas for internal control systems and financial performance: for internal control environment 0.909; for internal audit function 0.898; for risk management 0.958; for control activities 0.835; for corporate governance 0.893; for government policy 0.721 and for financial performance 0.923. This indicates that the internal reliability of the instrument for the internal control systems items was appropriate. A Cronbach’s alpha of 0.60 as a minimum level is acceptable (Zikmund *et al.*, 2010).

3.9 Data Analysis

3.9.1 Introduction

Data processing involves editing, coding, classification, tabulation and graphical presentation (Hall, 2010). The data collected in research was edited to make it unambiguous and clear as well as for maintaining consistency and accuracy. Data analysis usually involves reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper & Schindler, 2011). Data was analysed through the use of descriptive statistics and multiple linear regression analysis. The multiple linear regression model was used to estimate the causal relationship between dependent variable (financial performance) and the independent variables.

The researcher used quantitative techniques in analysing the data. After receiving questionnaires from the respondents, the responses were edited, classified, coded and tabulated to facilitate quantitative analysis using Statistical Package for Social Science (SPSS version 21). Tables and figures were used to present the analysis output. Inferential statistical regression and correlation was done to establish the effect of internal control systems on financial performance of companies quoted at NSE.

The Pearson Correlation Matrix was used to test the multi collinearity assumption, while an analysis of residuals and the plots of the regression residuals against predicted values was conducted to test for independence of error term.

3.9.2 Analytical Model

A multiple linear regression was used to analyse the relationship between effect of internal control systems and performance of companies listed in NSE. The study used the following models:

$$FP = \beta_0 + \beta_1 X_1 + \varepsilon$$

$$FP = \beta_0 + \beta_2 X_2 + \varepsilon$$

$$FP = \beta_0 + \beta_3 X_3 + \varepsilon$$

$$FP = \beta_0 + \beta_4 X_4 + \varepsilon$$

$$FP = \beta_0 + \beta_5 X_5 + \varepsilon$$

Multivariate models:

Statistical model to determine the effect of independent variables on the dependent variable.

$$FP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are regression co-efficient

FP- Financial performance measured by ROE

β_0 - Intercepts of equation

β_1 - Coefficients of variables

X1- Control Environment

X2- Internal Audit function

X3- Risk Management control

X4-Internal Control Activities

X5-Corporate Governance control

β_0 = Constant

ε = Error term

Statistical model to determine the effect of moderator on the relationship between the internal control systems and financial performance.

$$FP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are regression co-efficient

FP-Financial performance measured by ROA

β_0 - Intercepts of equation

β_1 -Coefficients of variables

X1- Control Environment

X2-Internal Audit function

X3-Risk Management control

X4-Internal Control Activities

X5-Corporate Governance control

X6-Governemnt Policy

β_0 = Constant

ε = Error term

3.9.3 Operationalization of Study Variables

Operationalization refers to the process of developing indicators or items for measuring the research constructs (Cresswell, 2004). Literature reviewed has identified various variables for this study. The independent variables consist of 5 elements namely; control environment, internal audit function, risk management control, internal control activities and corporate governance (Table 3.4). The dependent variable is the financial performance which is composed of net profit return on equity and earning per share.

Table 3.4: Tabulation of Independent Variables and Their Specific Measures

Type of variable	Variable name	Operationalization
Independent	Control environment	<ul style="list-style-type: none"> • Integrity and ethical values • Commitment to competence • Management philosophy and operating style • organizational structure • Assignment of authority and responsibility • Human resource policy and practices.
Independent	Internal Audit Functions	<ul style="list-style-type: none"> • Monitoring and evaluation • Fraud prevention, detection and control • Reporting
Independent	Risk Management Control	<ul style="list-style-type: none"> • Risk Identification • Risk evaluation • Risk Mitigation
Independent	Internal Control Activities	<ul style="list-style-type: none"> • Information & communication • Policies and procedures
Independent	Corporate Governance Controls	<ul style="list-style-type: none"> • Board and senior management experience and qualifications • Appointments and Levels of involvement • Conflict of interest Management
Moderating variable	Government Policy	<ul style="list-style-type: none"> • Compliance with legal and regulatory requirements
Dependent	Company Financial performance	<ul style="list-style-type: none"> • Profitability • Return on equity • Earning per share

3.9.4 Test of Significance

This study sought to establish the relationship between internal control and financial performance of companies listed in NSE and therefore a correlation design was used. A correlation analysis attempts to determine the degree and direction of relationship between two variables under study. Regression analyses was carried out to find out the significant effect of independent variables (X1, X2, X3, X4 and X5) on dependent variables (FP). Significance of coefficient values at 5% and 1% levels of significance was tested using the R^2 , Analysis of Variances (ANOVA), the z and the F Statistics. R^2 was used to measure the amount of variation in the dependent variable (ROE) which was explained by the variation in the independent variables.

F Statistic is a statistic which compares Sum of Square due to Regression to Sum of Square due to Error. It enables a hypothesis test to be carried out on the significance of the regression model. The z measures how well a particular independent variable predicts the dependent variable if all other predictors are not included or are assumed constant. The independent variables data was regressed against the dependent variable data and coefficients measures used to test the strength of relationship between the dependent and the independent variables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The study adopted different statistical approaches to examine the effect of internal control systems on financial performance of companies quoted in the Nairobi Securities Exchange. All constructs were adopted from pre-existing scales found in the literatures. In addition to descriptive statistics, the reliability among the multiple measures of the variables that comprise this study was measured using Cronbach's alpha coefficient generated by statistical packages for social sciences (SPSS). Cronbach's alpha is a measure of consistency and checks if the questions of the questionnaire were understood and if the data are minimally reliable (Hair, Anderson, Tatham, and Black, 2005; Cronbach, 1987).

4.2 Response Rate

The data was collected from the companies listed in Nairobi Securities Exchange which are registered and regulated by Capital Market Authority. The sample of the study consisted of 38 companies out of 62 listed companies. The target population was 144 Senior Managers out of which 115 responses were received, translating into 79.8% response rate. The response was considered appropriate since Sekaran, (2008) argues that any response above 75% is classified as best.

4.3 Results for the Pilot Study (Validity & Reliability)

4.3.1 Test of Construct Validity

According to Field (2005), factor analysis is an exploratory tool used to help the researcher make decisions on whether the variables under investigation explain the dependent variable. In this study, validity is concerned with whether the findings will

really explain the effect of internal control systems in financial performance of companies quoted in NSE. To be able to determine this, factor analysis was conducted for the variables and the results had a factor loading above 0.4. Hakanen, Schaufeli and Ahola (2008) used the same method which has been widely accepted as reliable for factor analysis (Alexander & Colgate, 2000). A loading factor of 0.40 and above is considered acceptable and has been used by other researchers such as Hair, Anderson, Tatham and Black (1998); Norman and Streiner (1994). Factor analysis results are indicated in Appendix V. The results show that all the factors related to internal control environment, internal audit function, risk management, control activities, corporate governance and government policy were found to have a factor loading of 0.4 and above. Therefore, they were used in the subsequent analysis.

4.3.2 Data Reliability

The coefficient alpha is an appropriate measure of variance attributable to subjects and variance attributable to the interaction between subjects and items (Zikmund et al., 2010). Accordingly the coefficient alpha or Cronbach's alpha was used as a measure of internal reliability. In terms of the specific testing of internal reliability, the following scores obtained in terms of the testing of the Cronbach's alphas are indicated in table 4.1.

Table 4.1: Reliability statistics

Variable	Cronbach's Alpha	Number of items
Internal control environment	0.909	18
Internal audit function	0.898	13
Risk management	0.958	13
Control activities	0.835	6
Corporate governance	0.893	7
Government policy	0.721	7

Thus the values in Table 4.1 internal control environment $\alpha = 0.909$, internal audit function $\alpha = 0.898$, risk management $\alpha = 0.958$, control activities $\alpha = 0.835$, corporate governance $\alpha = 0.893$, government policy $\alpha = 0.721$ are sufficient confirmation of data reliability for the independent variables. A Cronbach's alpha of 0.60 as a minimum level is acceptable (Zikmund *et al.*, 2010).

4.4 Demographic Profile of Respondents

4.4.1 Gender Distribution

The gender of the respondents was sought. Majority (59.5%) of the respondents were male while the rest (40.5%) of the respondents were female as shown in table 4.2. The statistics show that majority of employees in charge of internal control systems in companies quoted in Nairobi Securities Exchange are Male. The distribution however represents a fair gender balancing, an indication of successful efforts of various gender mainstreaming campaigns.

Table 4.2 Distribution of Respondents by Gender

Gender	Percentage
Male	59.5
Female	40.5
Total	100

4.4.2 Sector Distribution of the Respondents

The distribution of respondent per sector as shown in the table 4.3 shows that there is proper representation of all the sectors represented by various companies quoted in Nairobi Securities Exchange, an indication that proper stratification of the sector was done.

Table 4.3 Distribution of Respondents by Sector

Sector	Sample respondents	Actual respondents	Response %
Agriculture	15	12	10.43
Automobiles	8	5	4.34
Banking	26	22	19.13
Commercial/Services	23	19	16.52
Construction And Allied	11	9	7.83
Energy/Petroleum	11	10	8.69
Growth Enterprises	4	2	1.74
Insurance	11	10	8.69
Investment	8	4	3.49
Manufacturing	23	18	15.65
Telecommunication	4	4	3.49
Total	144	115	100

4.4.3 Job Position of Respondents

Although the unit of observation for this study was the senior managers in the quoted companies as already indicated in the methodology, this question sought to establish the job position of the respondents in the organization. An overwhelming 94% of the respondents were Senior executive management with 6% indicating Middle level managers as indicated in table 4.4. This was a very important profile distribution for this study since the respondents were the right people with adequate information relevant to this study hence best placed.

Table 4.4 Job Position of Respondents

Designation Respondent		Percentage
Senior Executive Managers	110	96%
Middle Level Manager	5	4%
Total	115	100

4.4.4 Level of Education of Respondents

Respondent's level of education was sought and majority (57%) of the respondents indicated that they have at least a degree level of education while sizeable (43%) possess a higher degree at postgraduate level (table 4.5). This is highly expected since the respondents are at a senior management level where the skills knowledge and competencies is supposed to be high. This depicts that the respondents were well educated and informed and therefore furnished this study with better information which added value.

Table 4.5: Level of Education of Respondents

Education Level	Percentage
Bachelor's Degree	57
Post graduate	43
Total	100

4.4.5 Working Experience of Respondents

This question sought to investigate the number of years each respondent had worked in the company. Majority (39.1%) of the respondents had a working experience between 6 to 10 years, 25.2% had 11 to 15 years, 17.4% had below 5years, 11.3% had 16to 20years and 7% had over 20 years of experience as shown in table 4.6. This means that the respondents had adequate working experience with the companies and therefore possess the necessary knowledge and information which was considered useful for this study.

Table 4.6 Working Experience of Respondents

Experience in years	Percentage
Less than 5 years	17.4
6 to 10 years	39.1
11 to 15 years	25.2
16 to 20 years	11.3
Over 20 years	7
Total	100

4.5 Diagnostic Tests of Variables

4.5.1 Auto-Correlation

Durbin-Watson test is used to check serial correlation among variables. When error terms from different (usually adjacent) time periods (or cross-section observations) are correlated, we say that the error term is serially correlated. Serial correlation will not affect the biasness or consistency of ordinary least squares (OLS) estimators, but it does affect their efficiency. Therefore to use a linear model, the dependent variable must be independent. This means that there should be no serial correlation among the observations. The dependent variable in this study was tested using Durbin-Watson Test and the results are indicated on Table 4.7

Table 4.7: Durbin Watson Test

Durbin Watson test	p-value
1.6072	0.08875

Auto-correlation

$H_0: \gamma = 0$ The residuals are independent

$H_0: \gamma > 0$ The residuals are inter-dependent

P value > 0.05 fail to reject null hypothesis

As indicated on table 4.7, P-value = 0.08875 and hence greater than 0.05, thus fail to reject the null hypothesis and conclude that there is no serial correlation among variables under study and linear model is therefore justified. (Should be no serial correlation among the observations.)

4.5.2 Test for Normality

The test for normality of financial performance (dependent variable) was done by use of Kolmogorov-Smirnov test. Given that H_0 and H_1 , set $\alpha=0.05$, the rule is that reject H_0 if P-value is less than α else fail to reject H_0 , where:

H_0 : The data is normal

H_1 : The data is not normal

Table 4.8 indicates that using the Kolmogorov-Smirnov Test of normality, Financial performance data is normal since the P-value, 0.240 is above 0.05 and thus we fail to reject the null hypothesis (H_0). The study therefore concluded that financial performance variable is normal in distribution and hence subsequent analysis could be carried out. Table 4.8 further shows that financial performance is approximately normally distributed with a mean of 17.9347, standard deviation of 5.69643 and the number of respondents were 115 represented by $N=115$. The dependent variable should be normally distributed because the study was using multiple linear regression model, where the condition of normality must be satisfied (Lapan, Quartaroli & Julia, 2012).

Table 4.8: Test for Normality

One-Sample Kolmogorov-Smirnov Test

		FINANCIAL PERFORMANCE
N		115
Normal Parameters ^a	Mean	17.9347
	Std. Deviation	5.69643
Most Extreme Differences	Absolute	.096
	Positive	.061
	Negative	-.096
Kolmogorov-Smirnov Z		1.030
Asymp. Sig. (2-tailed)		.240

a. Test distribution is Normal.

One way to make it very likely to have normal residuals is to have a dependent variable that is normally distributed (Shenoy & Madan, 1994). Figure 4.1 shows the normal QQ plot which indicates that the condition of normality for financial performance is satisfied. The quantile-quantile (QQ) plot is an excellent way to see whether the data deviate from other distributions but only interested in the normal distribution. The scatter plot shows the relationship between the actual observed values and what those values would be expected when the data is normally distributed.

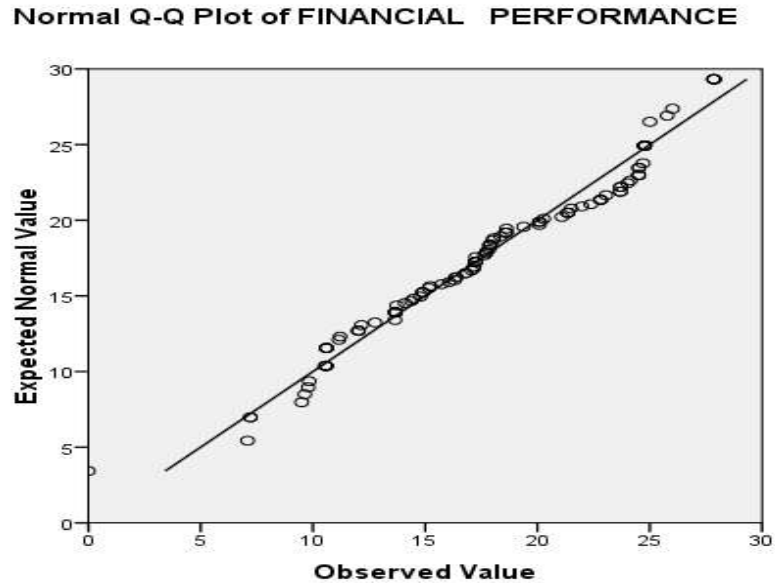


Figure 4.1: Normal QQ Plot of Financial Performance

According to Shenoy and Madan (1994), for a variable to be normally distributed most of the points should lie on the theoretical quantile line. The theoretical quantile line of the data is fitted and from the normal QQ plot it indicates that the observed values versus the expected normal values are randomly distributed along the line of best fit indicating that the dependent variable is normally distributed.

4.6 Descriptive Analysis

4.6.1 Descriptive Analysis for Internal Control Environment

4.6.1.1 Integrity and Ethical Values

The variables considered for integrity and ethical values in this study were entity policies (on business practices, conflict of interest and code conduct), tone at the top and fairness of management dealings with stakeholders (employees, suppliers, shareholders and citizens). The study sought to investigate if the companies have appropriate entity

policies regarding such matters as acceptable business practices, conflict of interest and code of conduct and if they were adequately communicated. The questions required the respondents to choose the following: strongly disagree, disagree, neutral, agree and strongly agree.

The result indicated that majority(56.5%) of the respondents strongly agreed that their companies have appropriate entity policies regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct and that they were adequately communicated, while 39.1% agreed and 4.4% were neutral. Further the study sought opinion onwhether management demonstrate the appropriate “tone at the top”, including explicit moral guidance about what is right and wrong and the same communicated in both words and deeds. Majority (57.4%) of the respondents agreed, 30.4% strongly agreed while 11.3% were neutral and 0.9% disagreed. As to whether management dealings with stakeholders are based on honesty and fairness, most of the respondent (47%) agreed, 29.5% strongly agreed while 22.6% were neutral and a few (0.9%) disagreed. The respondents’ opinion summary is shown in table 4.9.

The result agree with the finding by (Whittington and Pany, 2001) that Control environment factors include: Integrity and ethical values; the commitment to competence; leadership philosophy and operating style; and the way management assigns authority and responsibility, and organizes and develops its people. The study also agree with COSO (2013) that outlines control environment factors to include the integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors.

In view of the above results it can be concluded that most companies quoted in Nairobi securities exchange have appropriate entity policies on business practices, conflict of interest and code of conduct and that they are adequately communicated. The study also confirms that management of those companies demonstrates appropriate tone at the top and that management dealing with stakeholders is based on honesty and fairness. This confirms that most companies quoted in Nairobi securities exchange have entrenched in their systems integrity and ethical values which is a clear indication of good internal control environment.

4.6.1.2 Commitment to Competence

The commitment to competence variables considered in this study were existence of employee job description, management determination of the employee level of knowledge and skills required to perform a job, adequacy of employee compensation and evaluation of employee performance. The result of the finding indicated that majority (51.3%) of the respondents agreed that employees in their companies have job descriptions, including specific duties, reporting responsibilities, and that constraints are clearly established and effectively communicated to employees while 33% strongly agreed and 14.8 % were neutral. The rest 0.9% disagreed with the opinion. As to the opinion whether Management determines the level of knowledge and skills needed to perform a particular job and if this information is used in the hiring process, most (48.7%) of the respondents agreed, 30.4% strong agreed while 19.2% were neutral and a few 1.7% disagreed.

Further opinion on whether the company adequately compensates employees in order to attract qualified individuals, most (42.6%) of the respondents agreed while 16.5% strongly agreed, 34.8% were neutral, 5.2% disagreed while a few (0.9%) strongly disagreed. On the opinion about if employee performance evaluation techniques are implemented to identify incompetent or ineffective employees, majority of the

respondent (47%) agreed while 20.9% strongly agreed. Only a few 5.1% disagreed while 27% remained neutral. The results are summarized in table 4.9.

The result agree with the finding by (Whittington and Pany, 2006) that Control environment factors include: Integrity and ethical values; the commitment to competence; leadership philosophy and operating style; and the way management assigns authority and responsibility, and organizes and develops its people.

The findings tend to confirm that employees in companies listed in Nairobi securities exchange have clear job descriptions and that management determines the level of knowledge and skill needed to perform a particular job. The companies adequately compensate their employees and have performance evaluation mechanism in place. This confirms that management of most companies quoted in Nairobi securities exchange is committed to competence, a clear indication of existence of good internal control environment. This is expected to have positive impact on financial performance.

4.6.1.3 Management Philosophy and Operating Style

On management philosophy and operating style, the study sought to investigate whether management and operating decisions were dominated by a few individual, if management did analysis of risks before making a decision and if the management had a mechanism to identify and react to events and activities that affect achievement of the company objective. The results as indicated in table 4.9, were majority (35.7%) of the respondents agreed that management and operating decisions are not dominated by a few individuals with 16.5% strongly agreeing while a few 5.2% disagreed, 3.5% strongly disagreed and 39.1% were neutral. As to whether Management analyses the risks and potential benefits of a venture before making a decision most (48.7%) of the respondents agreed that Management analyses the risks and potential benefits of a venture before a decision is made while 21.7% strongly agreed and 26.1% remained neutral. A few (2.6%) and (0.9%) disagreed and strongly disagreed respectively. Further

on the opinion about whether management has mechanism to anticipate, identify and react to events or activities that affect achieving company objectives, majority (56.5%) of the respondent agreed that the management had mechanism to anticipate and identify events while 12.2% strongly agreed and 28.7% were neutral. A few (2.6%) disagreed. The results are summarized in table 4.9.

The results concur with the finding by (Whittington & Pany, 2001) that Control environment factors include: Integrity and ethical values; the commitment to competence; leadership philosophy and operating style; and the way management assigns authority and responsibility, and organizes and develops its people. The results also agree with the findings by Lightle, Castellano and Cutting (2007) that management is responsible for creating environment in which ethical behavior is encouraged and that internal auditors should survey the people who work in that environment to evaluate employees ethical behavior as a test of strength of control environment.

The findings confirm that management decisions in companies listed in Nairobi securities exchange are not dominated by a few individuals and that analysis of risk and potential benefits of a venture is done before making a decision. The study also confirms that management in listed companies have mechanism to anticipate, identify and react to events that may affect company objectives. This attest to presence of a positive management philosophy and style in companies quoted in Nairobi securities exchange, an indication of existence of good internal control environment.

4.6.1.4 Organizational Structure

In regard to the organizational structure, the study sought to investigate if the organization of the company was clearly defined in terms of line of authority and responsibility, if there was adequate supervision and monitoring of decentralized operations and if the organizational structure was appropriate for the size and complexity of the entity. Most (51.3%) of the respondents agreed that organization of

the company is clearly defined in terms of lines of authority and responsibility, whereas 35.7% strongly agreed and 13% disagreed. Opinion on whether there was adequate supervision and monitoring of decentralized operations, most (57.4%) of the respondents agreed there was adequate supervision and monitoring of decentralized operations while 18.3% strongly agreed and 22.6% remained neutral. Only a few (1.7%) disagreed. As to whether the organizational structure was appropriate for the size and complexity of the entity, most (43.5%) of the respondents agreed that organizational structure was appropriate for the size and complexity of the entity while 17.4% strongly agreed. Only 2.6% disagreed while 36.5% of the respondents were neutral. The results are summarized in table 4.9.

The results collaborate the findings by Daft (2004) that organizational structure defines how job tasks are formally divided, grouped and coordinated. There are six elements that managers of agencies need to address when they design their organization's structure. These are: work specialization, departmentalization, chain of command, span of control, centralization, decentralization and formalization. An organization's structure is a means to help management of companies achieve its objectives (Daft, 2004). The results also concur with the findings by (Wolf, 2002) that structure has a direct effect on the success of an organizational operational strategy. The results also agree with the finding by (Clemmer, 2003) that organization structure shapes performance.

The results confirm that organization structure of companies listed in Nairobi securities is clearly defined in terms of lines of authority and responsibility and there is adequate supervision and monitoring of decentralized operations. The findings also confirm that the organization structure for most of quoted companies is appropriate for the size and complexity. This is a clear indication of existence of good internal control environment.

4.6.1.5 Assignment of Authority and Responsibility

Regarding assignment of authority and responsibility, the study sought to investigate if the companies had clear assignment of responsibilities and delegation of authorities and if employees had job responsibilities including specific duties, reporting relationship clearly established and communicated. The findings as summarized in table 4.9, were (53.9%) of the respondents agreed that there was clear assignment of responsibility and delegation of authority to deal with such matters as organizational goals and objectives, operating functions, and regulatory requirements, whereas 28.7% strongly agreed while 3.5% disagreed and 13.9% were neutral. Further opinion was sought on whether all employees have job responsibilities, including specific duties, reporting relationships clearly established and communicated, the results indicated majority(53%) of the respondents agreed that employees have job responsibilities, including specific duties, reporting relationships clearly established and communicated, 25.2% strongly agreed while 18.3% were neutral and 3.5% disagreed.

The result collaborate the findings by Daft (2004) that organizational structure defines how job tasks are formally divided, grouped and coordinated. There are six elements that managers of agencies need to address when they design their organization's structure. These are: work specialization, departmentalization, chain of command, span of control, centralization, decentralization and formalization. An organization's structure is a means to help management of companies achieve its objectives (Daft, 2004). The findings confirm that employees of companies listed in Nairobi securities have clear assignment of responsibility and delegation of authority, an indication of existence of good internal control environment.

4.6.1.6. Human Resource Policy and Practices

On human resource policy and practices, the study sought to investigate if all personnel including key managers possess adequate knowledge and experience to discharge their responsibilities, if turnover of key personnel is low and if there is management commitment to competence to ensure that personnel receive adequate training to perform their duties. In relation to opinion on whether all personnel including key managers, possess adequate knowledge and experience to discharge their responsibilities, majority (47%) of the respondents agreed that personnel including key managers, possess adequate knowledge and experience to discharge their responsibilities, 22.6% strongly agreeing while 27.8% were neutral. Only a few (2.6%) disagreed. As to whether turnover of key personnel is relatively low, 33% of the respondents agreed that turnover of key personnel in their company is relatively low while 21.7% strongly agreed and 27% were neutral. 15% of the respondent disagreed and 2.6% strongly disagreed. Finally on whether management has shown commitment to competence and ensured that personnel receive adequate training to perform their duties, most (42.6%) of the respondents agreed that management has shown commitment to competence and ensured that personnel receive adequate training to perform their duties while 22.6% strongly agreed. 27.8% of the respondents were neutral while a few (7%) disagreed. The results are summarized in table 4.9.

The results concur with the findings by Boxall and Purcell (2003) that human resource advantage can be traced to better people employed in an organization. It also corroborates the finding by Becker, Huselid, Pickus and Spratt (1997) that performance can be achieved with the help of high performance work system which takes into account the factors affecting, individual performance such as recruitment procedures, motivation, training and management development. People are able to perform tasks if they have the right skills required for the job. The results also agree with International Standards for the Professional Practice of Internal Auditing (Standards) that defines control environment as: the attitude and actions of the board and management regarding

he significance of control within the organization. The control environment provides discipline and structure for the achievement of the primary objectives of the system of internal control. The results confirm that most companies quoted in Nairobi securities exchange have good human resource policies and practices which are a pointer to existence of good internal control environment.

Table 4.9 Respondents' Opinion on Internal Control Environment

Respondents Opinion	Strongly disagree	Disagree	natural	Agree	Strongly agree	Mean	Standard Deviation
The company has appropriate entity policies regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct.	.0%	.0%	4.4%	39.1%	56.5%	5	1
Management demonstrate the appropriate "tone at the top	.0%	.9%	11.3%	57.4%	30.4%	4	1
Dealings with employees, suppliers, citizens, bondholders, shareholders, and auditors are based on honesty and fairness?	.0%	.9%	22.6%	47.0%	29.5%	4	1
Employee job descriptions, including specific duties, reporting responsibilities, and constraints are clearly established and effectively communicated to employees?	.0%	.9%	14.8%	51.3%	33.0%	4	1
Management determines the level of knowledge and skills needed to perform a particular job	.0%	1.7%	19.2%	48.7%	30.4%	4	1
The company adequately compensates employees in order to attract qualified individuals.	.9%	5.2%	34.8%	42.6%	16.5%	4	1
Employee performance evaluation techniques are implemented to identify incompetent or ineffective employees	.0%	5.1%	27.0%	47.0%	20.9%	4	1
Management and operating decisions are not dominated by a few individuals	3.5%	5.2%	39.1%	35.7%	16.5%	4	1
Management analyses the risks and potential benefits of a venture before making a decision	.9%	2.6%	26.1%	48.7%	21.7%	4	1
Management has mechanisms to anticipate, identify and react to events that affect achieving company objectives?	.0%	2.6%	28.7%	56.5%	12.2%	4	1
The organization of the company is clearly defined in terms of lines of authority and responsibility	.0%	.0%	13.0%	51.3%	35.7%	4	1
There is adequate supervision and monitoring of decentralized operations	.0%	1.7%	22.6%	57.4%	18.3%	4	1
The organizational structure appropriate for the size and complexity of the entity	.0%	2.6%	36.5%	43.5%	17.4%	4	1
There is clear assignment of responsibility and delegation. of authority	.0%	3.5%	13.9%	53.9%	28.7%	4	1
All employees have job responsibilities, including specific duties, reporting relationships clearly established and communicated.	.0%	3.5%	18.3%	53.0%	25.2%	4	1
All personnel, including key managers, possess adequate knowledge and experience to discharge their responsibilities.	.0%	2.6%	27.8%	47.0%	22.6%	4	1
Turnover of key personnel is relatively low	2.6%	15.7%	27.0%	33.0%	21.7%	4	1
Management has shown commitment to competence and ensured that personnel receive adequate training to perform their duties.	.0%	7.0%	27.8%	42.6%	22.6%	4	1

4.6.2 Descriptive Analysis for Internal Audit Function.

4.6.2.1 Monitoring and Evaluation

In relation to monitoring and evaluation, the study sought to investigate if the companies have a functional internal audit, if the timing/completion of audit is appropriate and if the internal audit department has developed manual that guide on planning monitoring and evaluation. The result as shown in table 4.10, indicated that majority (79.1%) of the respondents strongly agreed that the company has a functional internal audit department, 19.1% agreed while an equal 0.9% of the respondents disagreed and took a neutral stand respectively. Further on the opinion about whether the timing of the audit in the company is appropriate, most (43.5%) of the respondent agreed that the timing of audit was appropriate, 27.7% strongly agreed while 18.3% were neutral. Only 9.6% and 0.9% of the respondents disagreed and strongly disagreed respectively. As to whether the internal audit unit in the company has developed an internal audit manual that guides audit operations such as planning, implementation, monitoring, and evaluation, 45.2% of the respondents agreed that internal audit unit in the company has developed an internal audit manual that guides audit operations such as planning, implementation, monitoring, and evaluation, 38.3% strongly agreed while 2.6% disagreed and 13.9% were neutral. Opinion on whether the audit is always completed on a timely basis, the results were 29.6% of the respondent agreed the audit is always completed on a timely basis, 19.1% strongly agreed, 25.2% were neutral, 22.6% disagreed while 3.5% strongly disagreed.

The result indicate that most of companies listed in Nairobi securities exchange have an effective internal audit function that plays the role of monitoring and evaluating organization activities, an indication of presence of good internal control systems. The result agree with the findings of Nawhera (2012) that internal audit function has positive effect on performance in terms of monitoring and advisory services.

4.6.2.2 Fraud Prevention, Detection and Control

On fraud prevention, detection and control, the study sought to investigate if internal audit findings are reported directly to top management and audit and risk committee of the board and whether majority of audit members are registered members of ICPAK or other recognized professional bodies. The study also sought to investigate if internal audit plays a major role in fraud detection and prevention and if recommendations of the internal audit department are taken seriously. The result as shown in table in table 4.10 indicates that majority (51.3%) of the respondent agreed that internal audit findings are reported directly to top management and the audit and risk subcommittee of the board while 43.5% strongly agreed and 2.6% were neutral. Only 1.7% of the respondents disagreed while 0.9% strongly disagreed.

As to the opinion whether majority of the audit team members in the company are registered members of ICPAK or professional organizations internationally recognized, the result indicated that most (52.2%) of the respondents agreed that majority of the audit team members in the company are registered members of ICPAK or other professional organizations internationally recognized, while 34.8% strongly agreed and 11.3% were neutral. A few (1.7%) of the respondent disagreed. Opinion on whether internal audit department in the company plays a major role in fraud detection and prevention, most (57.4%) of the respondents agreed that internal audit department in the company plays a major role in fraud detection and prevention, while 21.7% strongly agreed and 15.7% remained neutral. Only 4.3% and 0.9 % disagreed and strongly disagreed. On whether the recommendations of internal audit are taken very seriously in the organization, the result were majority (53.9%) of the respondents agreed that the audit recommendations are taken very seriously in the organization while 26.1% strongly agreed and 16.5% were neutral. The remaining 2.6% and 0.9% of the respondents disagreed and strongly disagreed respectively. As to the opinion on whether the internal auditor demonstrates professionalism and objective approach in executing their duties, most (68.7%) of the respondents agreed that the internal auditor

demonstrates professionalism and objective approach in executing their duties, 18.2% strongly agreed, 11.3% were neutral while an equal 0.90% of the respondents disagreed and strongly disagreed.

Finally as to the opinion on whether the internal audit department provides management with assurance that there are no major weaknesses and/or major internal control weakness are reported, the results were majority (66.1%) of the respondents agreed that internal audit department provides assurance that major weakness are reported, 17.4% strongly agreed, 13.9% neutral, 1.7% disagreed and 0.9% strongly disagreed.

The results agree with the findings by Corama, Ferguson and Moroney (2006) that organizations with effective and efficient internal audit function are able to detect fraud more than those that have not such a function within their organizations. The result confirms that companies in Nairobi security exchange have internal audit function that play the role of fraud detection, prevention and control, an indication existence of good internal control systems.

4.6.2.3 Reporting

The study sought to investigate if the internal audit department reports functionally to audit committee of the board, if internal audit department conducts its work independently and whether the head of internal audit is a member of the senior management in the company. The results as shown in table 4.10 were as follow. Majority (47.8%) of the respondents agreed that internal audit department reports functionally to the audit committee of the board, 40.9% strongly agreed and 0.9% strongly disagreed while an equal of 5.2% of respondents disagreed and remained neutral respectively. Opinion as to whether the internal audit department conducts its work independent of the management, the results showed that majority (52.2%) of the respondents agreed that audit department conducts its work independent of the management, 23.5% strongly agreed while 16.5% were neutral. 3.5% and 4.3% of the respondent disagreed and strongly disagreed respectively. Finally opinion as to whether the head of the internal audit function is a member of the senior management team in the company and reports administratively to the chief executive officer, 45.2% of respondents strongly agreed that the head of the internal audit function is a member of the senior management team in the company, 41.7% agreed, 6.1% were neutral while 0.9% and 6.1% disagreed and strongly disagreed respectively. The results are summarized in table 4.10.

The results agree with the finding by Maletta, Gramling, Schneider and Church (2004) that audit committees and management teams are now looking for improvement opportunities within the audit department and internal audit leaders are searching for new ways to manage ongoing performance. It also agrees with the findings by Al Matarneh (2011) that internal audit encompasses oversight activities taken by the board of directors and audit committees to make sure that the financial reporting process is credible.

The findings show that companies quoted in Nairobi security exchange have internal audit department which plays the role of independent and objective assurance. This is expected as a company cannot be listed without an established internal audit function (CMA 2013). Most quoted companies have functional internal audit departments charged with responsibility of providing management with re-assurance that internal control systems are adequate and quality of services is in place (Institute of Internal Audit, 2009). This is an indication of existence of good internal control systems in companies quoted in Nairobi Securities Exchange.

Table 4.10 Respondents' Opinion on Internal Audit Function

Respondents opinion	Strongly	Disagree	Neutral	Agree	Strongly	Standard	Mean	Deviation
	Disagree	Disagree	Neutral	Agree	Agree			
The company has a functional internal audit unit/department	.0%	.9%	.9%	19.1%	79.1%	5	1	
The timing of the audit in this company is appropriate.	.9%	9.6%	18.3%	43.5%	27.7%	4	1	
The internal audit unit in the company has developed an internal audit manual that guides audit operations such as planning, implementation, monitoring, and evaluation.	.0%	2.6%	13.9%	45.2%	38.3%	4	1	
The audit is always completed on a timely basis.	3.5%	22.6%	25.2%	29.6%	19.1%	3	1	
Internal audit findings are reported directly to top management and the audit and risk sub-committee of the board.	.9%	1.7%	2.6%	51.3%	43.5%	4	1	
A majority of the audit team members in the company are registered members of ICPAK or professional organizations internationally recognized.	.0%	1.7%	11.3%	52.2%	34.8%	4	1	
The internal audit unit in the company plays a major role in fraud detection and prevention	.9%	4.3%	15.7%	57.4%	21.7%	4	1	
Recommendations of the internal audit unit are taken very seriously in the organization	.9%	2.6%	16.5%	53.9%	26.1%	4	1	
The internal auditor(s) demonstrate professionalism and an objective approach.	.9%	.9%	11.3%	68.7%	18.2%	4	1	
The audit department provides management with assurance that there are no major weaknesses and/or major internal control weaknesses are reported.	.9%	1.7%	13.9%	66.1%	17.4%	4	1	
The internal audit department reports functionally to the audit committee of the Board	.9%	5.2%	5.2%	47.8%	40.9%	4	1	
The internal audit department conducts its work independent of the management	4.3%	3.5%	16.5%	52.2%	23.5%	4	1	
The head of the Internal audit function is a member of the senior management team in the company and reports to the CEO	6.1%	.9%	6.1%	41.7%	45.2%	4	1	

4.6.3 Descriptive Analysis for Risk Management.

4.6.3.1 Risk Identification

In relation to risk identification the study sought to investigate if the companies had well documented policy on risk management, if the company regularly updates risk registers and whether the management encourages reporting of events in order to identify risks. The study also sought to establish if the company had a monitoring system that identifies potential risks. The results as shown in table 4.11 indicates that majority(46.1%)of the respondents strongly agreed that their companies had well documented policy on risk management,27.8% agreed,18.3% were neutral while 2.6% and 5.2% disagreed and strongly disagreed respectively.Further opinion on whether the company regularly updates the risk register, majority(33%) of the respondent agreed that their companies regularly updates risk register,25.2% strongly agreed,30.4% were neutral, 7% disagreed and 4.4% strongly disagreed.

Opinion on whether the company management encourage reporting of events in order to identify the risks,most (44.4%) of the respondent agreed that management encourage reporting of events in order to identify the risks,32.2% strongly agreed,while 16.5% were neutral.A few 2.6% and 4.3% disagreed and strongly disagreed respectively.As to whether the company has a monitoring system that identifies potential risks,most (36.5%) of the respondent agreed that the company has a monitoring system that identifies potential risks,28.7% strongly agreed while 22.6% were neutral. The balance 8.7% and 3.5% of the respondent disagreed and strongly disagreed respectively.

The results agree with the findings of (Deakin,1998) that financial performance analysis needs to pay attention to total risks and is related to concepts of efficiency and effectiveness.The results also agree with the findings by (Berinato,2006) that risk management is crucial because balancing risk is becoming the only effective way to manage a corporation in a complex world.The results confirm that quoted companies in

Nairobi securities exchange have well documented policies on risks and management encourage reporting of events in order to identify risk,an indication of existence of good internal control systems.

4.6.3.2 Risk Evaluation

Under risk evaluation the study sought to investigate if the companies had adequate capacity to risk assessment,if there was a risk review process and if the management adequately evaluates and records the risks when making important decisions. Also the study sought to establish if the company management effectively communicated risks to employees and other stake holders.The results as shown in table 4.11 below indicates that majority (38.3%) of the respondents agreed that their companies had adequate capacity to perform risk assessment, 20% strongly agreed, 33% were neutral while 5.2% disagreed and 3.5% strongly disagreed. Further opinion on whether the company has a risk review process after implementation of the mitigation measures/control for identification of risks, majority (44.4%) of the respondent agreed that their company had a risk review process after implementation of the mitigation with 22.6% strongly agreeing while 25.2 % were neutral. The rest 4.3% disagreed and 3.5% strongly disagreed. On the opinion whether company management effectively communicate risks to the employees and the stakeholders, most (36.5%) of the respondents agreed that company management effectively communicated risks to employees and stake holders, 17.4% strongly agreed, 33.9% were neutral while 8.7% disagreed and 3.5% strongly disagreed. Finally opinion on whether the management adequately evaluates and records the risk when making important decisions (launch of projects or new products, development of strategic plans, investment plans), most (37.4%) of the respondent agreed that the management adequately evaluates and records the risk when making important decisions, 19.2% strongly agreed, 33.9% were neutral and 4.3% disagreed while 5.2% strongly disagreed.

The results support the finding by Khan and Ahmed, (2001) that the survival and success of a financial organization depends critically on the efficiency of managing these risks. The results confirm that most companies quoted in Nairobi security exchange adequately evaluates and records the risk an indication of good internal control systems.

4.6.3.3 Risk Mitigation

Respondents' opinion on whether the company has adequately implemented any inspection plans to reduce the inherent risks and if those plans which are periodically revised, 45.2% of respondent agreed while 15.7% strongly agreed. 33% of the respondent were neutral while 6.1% disagreed. As to whether there exists a Risk Management committee in the organization, 35.6% of the respondent strongly agreed, 29.6% agreed, 20.9% were neutral while 11.3% disagreed and 2.6% strongly disagreed. Further opinion on whether risks identified are reviewed and decisions taken on the same by a Risk Management committee, 37.4% of the respondents agreed, 29.6% strongly agreed, 20.9% were neutral while 7.8% disagreed and 4.3% strongly disagreed.

Opinion on whether recommendations by the Risk Management committee are reported directly to top management and the audit and risk sub-committee of the board, 40% of the respondents agreed, 30.4% strongly agreed, 19.2% were neutral while an equal response 5.2% disagreed and strongly disagreed. Finally opinion on whether management uses instruments for risk transfer or sharing with other organizations (e.g. insurance companies), an equal response of 34.4% agreed and strongly agreed while 23.4% were neutral and an equal response 3.5% strongly disagreed and agreed respectively. The results are summarized in table 4.11.

The results support the findings Thornton (2004) who observed that in recent years, stakeholder's expectations from internal audit functions have changed significantly. The focus has now moved from a compliance and financial control function to facilitating organizations to proactively identify, assess and control risks. The results also concur

with the findings of Akkizidis and Khandelwal, (2007) that good risk management is highly relevant in providing better returns to the shareholders. The results confirm that most companies quoted in Nairobi securities have embraced in their operations enterprise risk management an indication of existence of good internal control systems.

Table 4.11: Respondent’s Risk Management

Respondents opinion	Strongly	Disagree	Neutral	Agree	Strongly	Standard	Mean	Deviation
	Disagree	Disagree	Neutral	Agree	Agree			
The company has a well-documented policy on risk management	5.2%	2.6%	18.3%	27.8%	46.1%	4	1	
The company regularly updates the risk register	4.4%	7.0%	30.4%	33.0%	25.2%	4	1	
The company management encourage reporting of events in order to identify the risks	4.3%	2.6%	16.5%	44.4%	32.2%	4	1	
The company has a monitoring system that identifies potential risks	3.5%	8.7%	22.6%	36.5%	28.7%	4	1	
There is adequate capacity to perform risk assessment in my company	3.5%	5.2%	33.0%	38.3%	20.0%	4	1	
The company has a risk review process after implementation of the mitigation measures/control for identification of risks	3.5%	4.3%	25.2%	44.4%	22.6%	4	1	
The company management effectively communicate risks to the employees and the stakeholders	3.5%	8.7%	33.9%	36.5%	17.4%	4	1	
The management adequately evaluates and records the risk when making important decisions (launch of projects or new products, development of strategic plans, investment plans)	5.2%	4.3%	33.9%	37.4%	19.2%	4	1	
The company has adequately implemented any inspection plans to reduce the inherent risks which are periodically revised.	.0%	6.1%	33.0%	45.2%	15.7%	4	1	
There exists a Risk Management committee in the organization	2.6%	11.3%	20.9%	29.6%	35.6%	4	1	
Risks identified are reviewed and decisions taken on the same by a Risk Management committee	4.3%	7.8%	20.9%	37.4%	29.6%	4	1	
Recommendations by the Risk Management committee are reported directly to top management and the audit and risk sub-committee of the board	5.2%	5.2%	19.2%	40.0%	30.4%	4	1	
Management uses instruments for risk transfer or sharing with other organizations (e.g. insurance companies)	3.5%	3.5%	23.4%	34.8%	34.8%	4	1	

4.6.4 Descriptive Analysis for Control Activities

4.6.4.1 Information and Communication

Respondents opinion regarding whether the company has well established information and communication channels, most 58.30% of the respondents agreed, 31.3% strongly agreed while 8.7% were neutral and 1.7% disagreed. On whether the company utilises 'suggestion boxes' for obtaining information that is sensitive and confidential for the effective management of the organization, 38.3% of the respondent agreed, 20% strongly agreed while 22.6% were neutral. 13% of the respondents disagreed and a few (6.1%) strongly disagreed. Further opinion on whether whistle blowing in the company has been and continues to be an effective way to obtain critical and sensitive information necessary for curbing cases of fraudulent activities, majority (33.9%) of the respondents agreed, 21.7% strongly agreed while 27% were indifferent. The 14.8% and 2.6% of the respondents disagreed and strongly disagreed respectively. The results are shown in table 4.12.

The study agrees with COSO (2013) that outlines control environment factors to include the integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns, communicates authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors. The result confirms that companies quoted in Nairobi securities exchange have well defined channels of information and communication, an indication of good internal control systems.

4.6.4.2 Policies and Procedure

Opinion as to whether the company has developed effective policies and procedures on information and communication, 48.7% of the respondent agreed, 20.9% strongly agreed, 26% were neutral while 3.5% disagreed and 0.9% strongly disagreed. Further opinion on whether the company policies on information and communications provide

well established techniques and mechanisms to address non-compliance in financial matters, most (52.2%) of the respondents agreed, 13.9% strongly agreed, 28.7% remained neutral while 4.3% disagreed and 0.9% strongly disagreed. Finally on whether the company has clear segregation of duties for the various financial functions, majority (62.6%) of the respondents agreed, 23.5% strongly agreed, 13% remained neutral and 0.9% strongly disagreed. The results are shown in table 4.12.

The result agree with the finding by Ray and Pany (2001) that asserts that control activities are another component of internal controls and that control activities are policies and procedures that help ensure that management directives are carried out. The results also agree with the finding of Tunji (2013) and Dhillon (2001) who argued that internal controls encompass a set of rules, policies, and procedures an organization implements to provide reasonable assurance that: (a) its financial reports are reliable, (b) its operations are effective and efficient, and (c) its activities comply with applicable laws and regulations. The results also concur with the finding of Anduuru (2005) that Control activities involve two elements: a policy establishing what should be done and procedures to effect the policy. All policies must be implemented thoughtfully, conscientiously and consistently to achieve the desired objectives. The results confirm that most of the companies quoted in NSE have put in policies and procedure that assist in running their operations an indication of existence good internal control systems.

Table 4.12 Respondents Control Activity

Respondents opinion	Strongly Disagree Neutral Agree Strongly					Standard	
	Disagree			Agree	Agree	Mean	Deviation
The company has well established information and communication channels	.0%	1.7%	8.7%	58.3%	31.3%	4	1
The company utilizes 'suggestion boxes' for obtaining information that is sensitive and confidential for the effective management of the organization	6.1%	13.0%	22.6%	38.3%	20.0%	4	1
Whistle blowing in the company has been and continues to be an effective way to obtain critical and sensitive information necessary for curbing cases of fraudulent activities	2.6%	14.8%	27.0%	33.9%	21.7%	4	1
The company has developed effective policies and procedures on information and communication	.9%	3.5%	26%	48.7%	20.9%	4	1
The company policies on information and communications provide well established techniques and mechanisms to address non-compliance in financial matters.	.9%	4.3%	28.7%	52.2%	13.9%	4	1
The company has clear segregation of duties for the various financial functions?	.9%	.0%	13.0%	62.6%	23.5%	4	1

4.6.5 Descriptive Analysis for Corporate Governance

4.6.5.1 Corporate Governance Controls

Respondents' opinion on whether the company has a well-established and effective Board, 58.2% of the respondents strongly agreed, 35.7% agreed while 5.2% were neutral and 0.9% strongly agreed. As to whether Recruitment and appointment of Board

members is approved by the Shareholders during the Annual General Meetings, 40.9% of the respondent agreed, 40% strongly agreed, while 13% were neutral. The balance 0.9% and 5.2% of the respondents disagreed and strongly disagreed respectively. Further opinion on whether different members of the board in the company bring unique experiences and expertise to the management of the company, 36.5% of the respondent agreed, 31.3% strongly agreed and 27% were neutral. The remaining 4.3% and 0.9% of the respondents disagreed and strongly disagreed respectively. Opinion on whether all members of the board of directors belong to various specialised sub-committee of the board, most 34.8% of the respondent agreed, 27.8% strongly agreed, 31.3% were neutral while 5.2% and 0.9% disagreed and strongly disagreed respectively. On whether the company has well established corporate governance policies and procedures and practises that guide the affairs of the company, 47% of the respondents agreed, 32.1% strongly agreed, 17.4% were neutral while 2.6% disagreed and 0.9% strongly disagreeing. Opinion as to whether the company has a well-developed policy on conflict of interest and procedures on how to handle any conflict of interest cases that may arise from time to time, 33% of the respondent strongly agreed, while 22.6% agreed, 32.2% were neutral and 11.3% disagreed while a few (0.9%) strongly disagreed. Finally on opinion on whether succession planning and remuneration of the board of directors are issues of significant interest and these are the responsibility of the respective sub-committees, 33% of the respondents agreed, 20.9% disagreed, 29.6% were neutral while 12.2% disagreed and 4.3% strongly disagreed. The results are shown in table 4.13.

The results agree with Klapper and Love (2002) study that showed that better corporate governance is highly correlated with better operating performance and market valuation. Also the results concur with the findings of Niu (2006) that return-earnings were positively related to the strength of shareholder rights and quality of governance practices. The results indicate that good corporate governance mechanisms provide greater oversight of the financial reporting process and ensure higher-quality earnings. The results confirm that most companies quoted in NSE have entrenched corporate governance an indicator of presence of good internal control systems.

Table 4.13 Respondents Corporate Governance

Respondents opinion	Strongly Disagree		Neutral		Strongly Agree		Mean	Standard Deviation
	Disagree	Disagree	Neutral	Agree	Agree	Agree		
The company has a well-established and effective Board	.9%	.0%	5.2%	35.7%	58.2%	5	1	
Recruitment and appointment of Board members is approved by the Shareholders during the Annual General Meetings	5.2%	.9%	13.0%	40.9%	40.0%	4	1	
The different members of the board in the company bring unique experiences and expertise to the management of the company	.9%	4.3%	27.0%	36.5%	31.3%	4	1	
All members of the board of directors belong to various specialized sub-committee of the board	.9%	5.2%	31.3%	34.8%	27.8%	4	1	
The company has well established corporate governance policies and procedures and practices that guide the affairs of the company	.9%	2.6%	17.4%	47.0%	32.1%	4	1	
The company has a well-developed policy on conflict of interest and procedures on how to handle any conflict of interest cases that may arise from time to time	.9%	11.3%	32.2%	22.6%	33.0%	4	1	
Succession planning and remuneration of the board of directors are issues of significant interest and these are the responsibility of the respective sub-committees	4.3%	12.2%	29.6%	33.0%	20.9%	4	1	

4.6.6 Descriptive Analysis for the Moderating Effect of Government Policy

.6.6.1 Government Policy

Respondents' opinion on whether the company operations comply with the all set government policies, 67% of the respondent strongly agreed, 27% agreed while 5.1% were neutral and 0.9% disagreed. On the existence of a legal unit within the company that updates management on any changes in the regulatory environment, there was an equal respondent of 46.1% for both strongly agree and agree while 7% were neutral and 0.8% disagreed. As to whether recommendations of the legal unit in the company are reported directly to the audit and risk sub-committee of the board, 37.4% of the respondents agreed, 34.8% strongly agreed, while 21.7% were indifferent and 6.1% disagreed.

Opinion on whether the company is greatly affected by government action on market prices e.g. minimum wage bill, 42.6% of the respondents agreed, 41.8% strongly agreed, 9.6% were indifferent while 1.7% disagreed and 4.3% strongly agreed. On whether changes in government regulations are implemented in the company without delay 48.7% of the respondents strongly agreed, 35.7% agreed while 14.7% were neutral and 0.9% disagreed. Further opinion on whether financial performance of the company is affected by changes in government rules and regulation, 48.7% of the respondents agreed, 40% strongly agreed, 3.5% were indifferent while 6.1% disagreed and 1.7% strongly disagreed. On whether the company frequently review its policies to reflect changes in government changes, 48.7% of the respondents agreed, 34.8% strongly agreed while 16.5% were neutral. The results are summarized in table 4.14.

The result support the findings by (Salamon, 2002), that tools of the government can directly or indirectly influence the financial performance of organizations. The result confirm that most companies quoted in NSE are affected by government actions an indicator that government policy plays a role in financial performance of companies quoted in NSE.

Table 4.14 Respondents Government Policy

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
The company operations comply with the all set government policies	.0%	.9%	5.1%	27.0%	67.0%	5	1
There exists a legal unit within the company that updates management on any changes in the regulatory environment	.0%	.8%	7.0%	46.1%	46.1%	4	1
Recommendations of the legal unit in the company are reported directly to the audit and risk sub-committee of the board	.0%	6.1%	21.7%	37.4%	34.8%	4	1
The company is greatly affected by government action on market prices e.g. minimum wage bill	4.3%	1.7%	9.6%	42.6%	41.8%	4	1
Changes in government regulations are implemented in the company without delay	.0%	.9%	14.8%	35.7%	48.7%	4	1
Financial performance of the company is affected by changes in government rules and regulation	1.7%	6.1%	3.5%	48.7%	40.0%	4	1
The company frequently review its policies to reflect changes in government changes	.0%	.0%	16.5%	48.7%	34.8%	4	1

4.6.7.1 Financial Performance

Respondents opinion on profitability in company over the last 7 years has been increasing steadily and the results were 36.5% of the respondents strongly agreed, 34.8% agreed and 15.7% were neutral. The balance 11.3% and 1.7% disagreed and strongly disagreed respectively. On whether the return on investment in company over the last 7 years has been growing steadily, majority 34.8% agreed followed by 27.8% who strongly agreed. 24.3% of the respondent were neutral, 12.2% disagreed while 0.9% strongly disagreed. Opinion on whether the liquidity of the company over the last 7 years

has been increasing steadily, 26% of the respondents strongly agreed, 19.1% agreed and majority 35.7% were indifferent. The balance 17.4% and 1.7% of the respondents disagreed and strongly disagreed respectively.

As to whether asset turnover in company over the last 7 years has been increasing steadily due to good company performance, most (44.3%) of the respondents agreed, 21.8% strongly agreed while 28.7% were neutral and an equal 2.6% disagreed and strongly disagreed respectively. Further opinion on whether debt financing in the company over the last 7 years has been decreasing steadily, most (35.7%) of the respondents disagreed, 26.1% agreed and 11.3% strongly agreed. The balance 19.1% of the respondent were neutral and 7.8% strongly disagreed. Opinion on whether equity financing in the company over the last 7 years has been increasing steadily, most (40.9%) of the respondents agreed, 37.4% were neutral, 11.2% strongly agreed and 7% disagreed while 3.5% strongly disagreed. As to whether earnings per share in the company over the last 7 years has been increasing steadily, 41.7% of the respondent agreed, 13.9% strongly agreed, 27% were neutral while 14.8% disagreed and 2.6% strongly disagreed. Lastly opinion on whether diversified Investments in the company have steadily increased over the last 7 years due to good performance, most (43.4%) of the respondents strongly agreed, 20.9% agreed while 27% were neutral. The remaining 7% and 1.7% of the respondent disagreed and strongly disagreed respectively. The results are summarized in table 4.15.

Table 4.15 Respondents Financial Performance

Respondents opinion	Strongly Disagree		Neutral		Strongly Agree		Standard Mean	Deviation
	Disagree	Disagree	Neutral	Agree	Agree	Agree		
Profitability in company over the last 7 years has been increasing steadily	1.7%	11.3%	15.7%	34.8%	36.5%		4	1
Return on investment in company over the last 7 years has been growing steadily	.9%	12.2%	24.3%	34.8%	27.8%		4	1
Liquidity in company over the last 7 years has been increasing steadily	1.7%	17.4%	35.7%	19.1%	26.1%		4	1
Asset turnover in company over the last 7 years has been increasing steadily due to good company performance	2.6%	2.6%	28.7%	44.3%	21.8%		4	1
Debt financing in my company over the last 7 years has been decreasing steadily	7.8%	35.7%	19.1%	26.1%	11.3%		3	1
Equity financing in my company over the last 7 years has been increasing steadily	3.5%	7.0%	37.4%	40.9%	11.2%		3	1
Earnings per share in my company over the last 7 years has been increasing steadily	2.6%	14.8%	27.0%	41.7%	13.9%		3	1
Diversified Investments in my company have steadily increased over the last 7 years due to good performance	1.7%	7.0%	27.0%	20.9%	43.4%		4	1

4.7 Inferencial Analysis

The researcher then performed inferencial analysis to ascertain the actual implication of the data collected and to draw conclusions pertaining to the relationship of the specific variables. Regression analysis was done to establish the statistical significance relationship between the independent variables notably, internal control environment, internal audit function, risk management, control activities and corporate governance on the dependent variable which was financial performance. According to Marshall and Rossman (2006), Regression Analysis is a statistical process of estimating the

relationship between variables. Regression analysis helps in generating equation that describes the statistics relationship between variables. The regression analysis results were presented using a scatter plot diagram, regression model summary tables, Analysis of Variance (ANOVA) table and beta coefficients tables.

The general objective of this study was to determine the effect of internal control systems on the financial performance of companies quoted in Nairobi securities exchange. Accordingly the researcher chose to perform regression analysis to establish the relationship between the internal control systems (independent variables) and financial performance (dependent variable).

4.7.1 Regression Analysis on Internal Control Environment Versus Financial Performance

H_0 : There is no significant relationship between internal control environment and financial performance.

Regression analysis was conducted to determine the significance of the relationship of internal control environment against Financial performance. Figure 4.2 illustrates scatter plot diagram of internal control environment versus financial performance. The Figure 4.2 presents that all the points/observations appear in the first quadrante and the line of best of fit indicates an estimate line that is increasingly positively upwards. This implies that there is a positive linear relationship between internal control environment and financial performance.

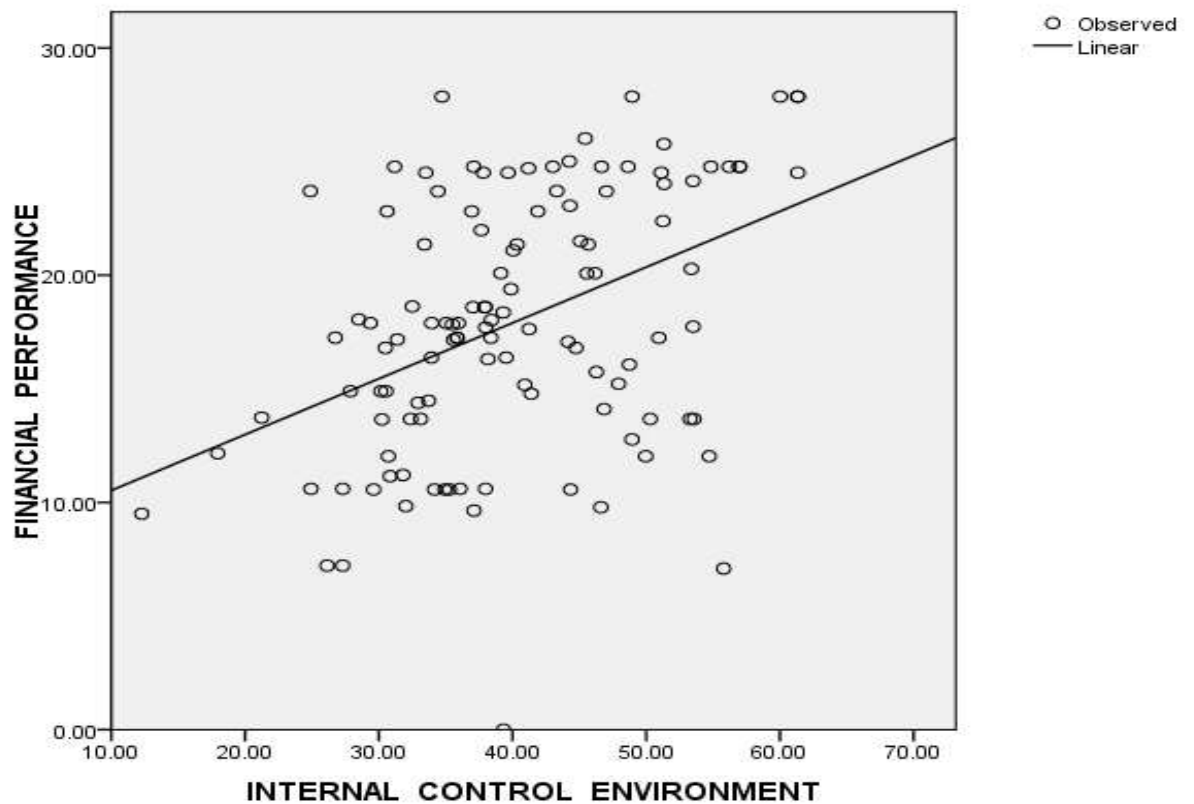


Figure 4.2 Regression Model of Internal Control Environment on Financial Performance

Table 4.16 presents the regression model of internal control environment on financial performance. As presented in the table, the coefficient of determination R square is 0.176 and R is 0.420 at 0.05 significance level. The coefficient of determination indicates that 16.9% of the variation on financial performance is influenced by internal control environment. This implies that there exists a positive significant relationship between internal control environment and financial performance.

Table 4.16: Correlations of Internal Control Environment and Financial Performance

			Financial performance	Internal control environment
Financial Performance	Pearson Correlation		1	.420**
	Sig. (2-tailed)			.000
	N		115	115
Internal Control Environment	Pearson Correlation		.420**	1
	Sig. (2-tailed)		.000	
	N		115	115
R	.420			
R Square	.176			
Adjusted R Square	.169			
Std. Error of the Estimate	5.19227			

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

Predictors: (Constant), internal control environment

The Analysis of variance (ANOVA) results as shown in Table 4.17 further confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant linear relationship between internal control environment and financial performance.

Table 4.17: Analysis of Variance (ANOVA) for Internal Control Environment

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	652.788	1	652.788	24.214	.000 ^a
	Residual	3046.439	113	26.960		
	Total	3699.228	114			

The results further indicate that internal control environment have positive and significant effects on financial performance (Table 4.18). The fitted model $FP = 8.07 + 0.246 * X1$. This implies that a unit change in internal control environment will increase financial performance by the rate of 0.246. Even when internal control environment is non-existence, financial performance is still positive at 8.07 indicating that there are other drivers of financial performance including internal audit, risk management, control activities and corporate governance.

Table 4.18: Internal Control Environment and Financial Performance

	Coefficient				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	8.077	2.061		3.919	.000
Internal Control Environment	.246	.050	.420	4.921	.000

4.7.2 Regression Analysis on Internal Audit Function Versus Financial Performance

H_0 : There is no significant relationship between internal audit function and financial performance.

Regression analysis was conducted to determine the significance of the relationship of internal audit function against Financial performance. Figure 4.3 illustrates scatter plot diagram of internal audit function versus financial performance. The Figure 4.3 presents that all the points/observations appear in the first quadrante and the line of best of fit indicates an estimate line that is increasingly positively upwards. This implies that there is a positive linear relationship between internal audit function and financial performance.

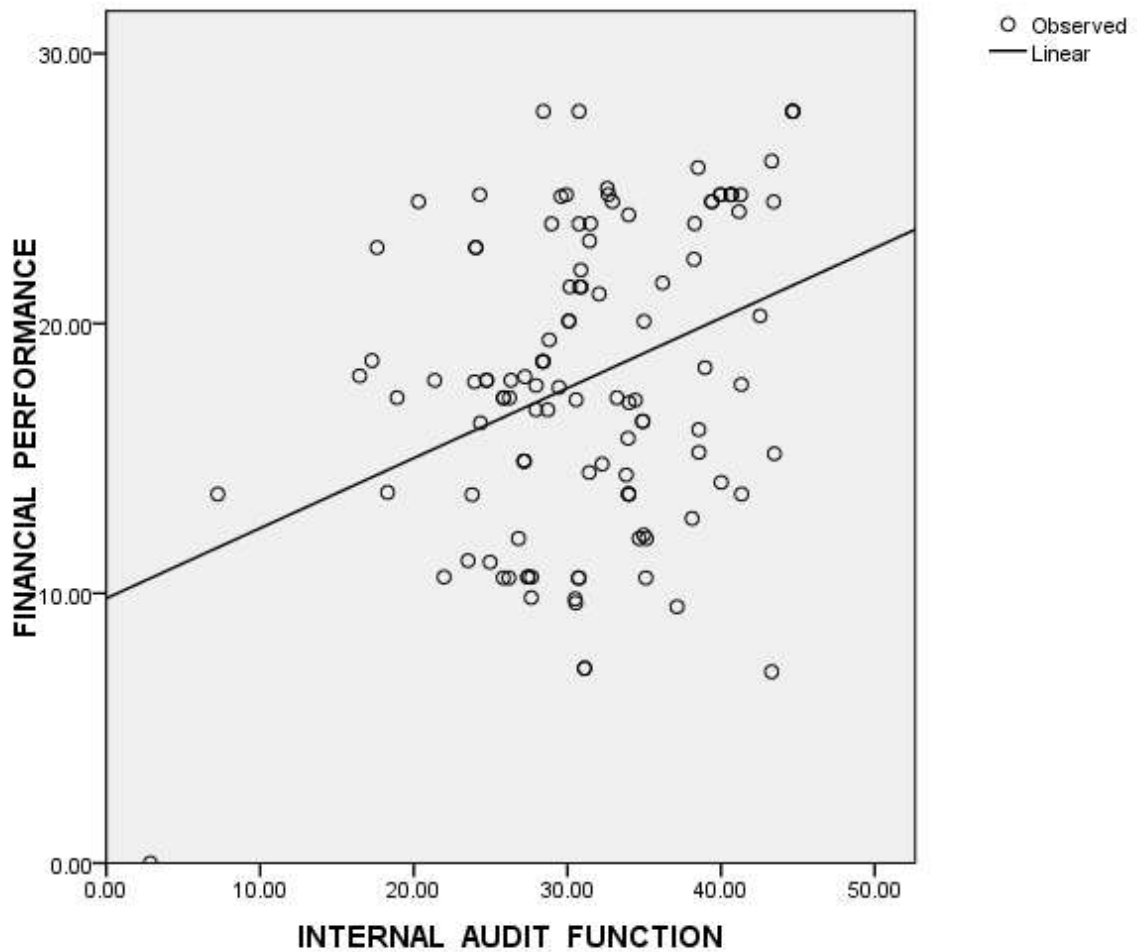


Figure 4.3 Regression Model on Internal Audit Function Versus Financial Performance

Table 4.19 presents the regression model of internal audit function on financial performance. As presented in the table, the coefficient of determination R square is 0.16 and R is 0.341 at 0.05 significance level. The coefficient of determination indicates that 10.8% of the variation on financial performance is influenced by internal audit function. This implies that there exists a positive significant relationship between internal audit function and financial performance.

Table 4.19: Correlations of Internal Audit Function and Financial Performance

		Financial Performance	Internal Audit Function
Financial Performance	Pearson Correlation	1	.341 **
	Sig. (2-tailed)		.000
	N	115	115
Internal Audit Function	Pearson Correlation	.341 **	1
	Sig. (2-tailed)	.000	
	N	115	115

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

R	.341
R Square	.116
Adjusted R Square	.108
Std. Error of the Estimate	5.37969

The Analysis of variance (ANOVA) results as shown in Table 4.20 confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant positive relationship between internal audit function and financial performance.

Table 4.20: Analysis of Variance (ANOVA) for Internal Audit Function

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	428.893	1	428.893	14.820	.000 ^a
	Residual	3270.334	113	28.941		
	Total	3699.228	114			

a. Predictors: (Constant), internal audit function

The results further indicate that internal audit function has a positive and significant effect on financial performance (Table 4.21). The fitted model $FP = 9.813 + 0.260 * X_2$. This implies that a unit change in internal audit function will increase financial performance by the rate of 0.260. Even when internal audit function is non-existence, financial performance is still positive at 9.813 indicating that there are other drivers of financial performance including internal control environment, risk management, control activities and corporate governance.

Table 4.21: Internal Audit Function and Financial Performance

		Coefficient				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	9.813	2.169		4.525	.000 ^a
	Internal Audit Function	.260	.067	.341	3.850	.000

a. Dependent Variable: financial performance

4.7.3 Regression Analysis on Risk Management Versus Financial Performance

H₀: There is no significant relationship between risk management control and financial performance.

Regression analysis was conducted to determine the significance of the relationship between risk management and Financial performance. Figure 4.4 illustrates scatter plot diagram of risk management versus financial performance. The Figure 4.4 presents that all the points/observations appear in the first quadrante and the line of best of fit indicates an estimate line that is increasingly positively upwards. This implies that there is a positive linear relationship between risk management and financial performance.

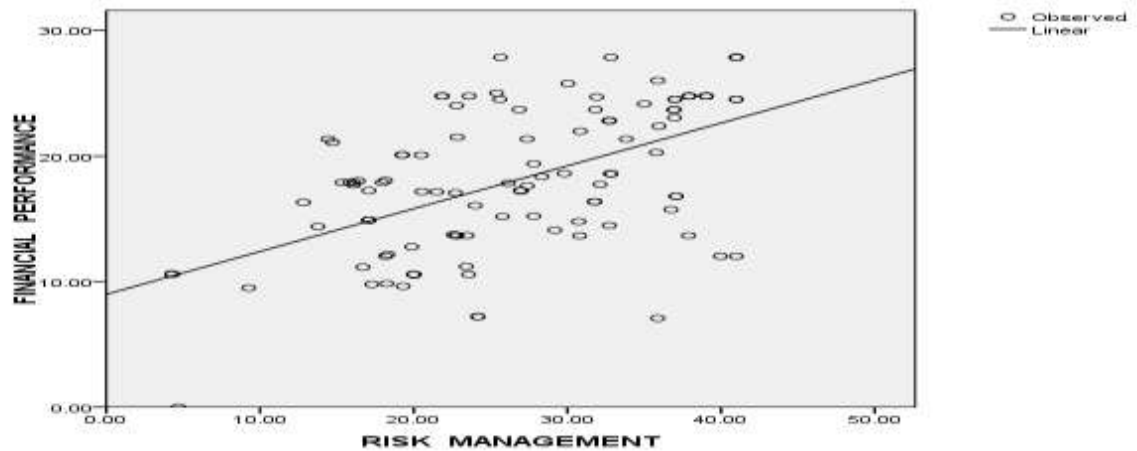


Figure 4.4: Regression Model on Risk Management Versus Financial Performance

Table 4.22 presents the regression model of risk management on financial performance. As presented in the table, the coefficient of determination R square is 0.308 and R is 0.555 at 0.05 significance level. The coefficient of determination indicates that 30.2% of the variation on financial performance is influenced by risk management. This implies that there exists a positive significant relationship between risk management and financial performance.

Table 4.22: Correlations of Risk Management and Financial Performance

		Correlation	
		Financial Performance	Risk Management
Financial Performance	Pearson Correlation	1	.555**
	Sig. (2-tailed)		.000
	N	115	115
Risk Management	Pearson Correlation	.555**	1
	Sig. (2-tailed)	.000	
	N	115	115
**. Correlation is significant at the 0.01 level (2-tailed).			
R		.555	
R Square.		.308	
Adjusted R Square		.302	
Std. Error of the Estimate		4.75792	

The Analysis of variance (ANOVA) results as shown in Table 4.23 confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant positive relationship between risk management and financial performance.

Table 4.23: Analysis of Variance (ANOVA) for Risk Management

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1141.151	1	1141.151	50.409	.000 ^a
	Residual	2558.077	113	22.638		
	Total	3699.228	114			

a. Predictors: (Constant), Risk Management

The results further indicate that risk management control has a positive and significant effect on financial performance (Table 4.24). The fitted model $FP = 8.992 + 0.341 * X_3$. This implies that a unit change in risk management will increase financial performance by the rate of 0.341. Even when risk management function is non-existence, financial performance is still positive at 8.992 indicating that there are other drivers of financial performance including internal control environment, internal audit function, control activities and corporate governance.

Table 4.24: Risk Management and Financial Performance

Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	8.992	1.335		6.733	.000 ^a
Risk Management	.341	.048	.555	7.100	.000

a. Dependent Variable: Financial performance

4.7.4 Regression Analysis on Control Activities Versus Financial Performance

H₀: There is no significant relationship between internal control activities and financial performance.

Regression analysis was conducted to determine the significance of the relationship of internal control activities against financial performance. Figure 4.5 illustrates scatter plot diagram of internal control activities versus financial performance. The Figure 4.5 presents that all the points/ observations appear in the first quadrante and the line of best of fit indicates an estimate line that is increasingly positively upwards. This implies that there is a positive linear relationship between internal control activities and financial performance.

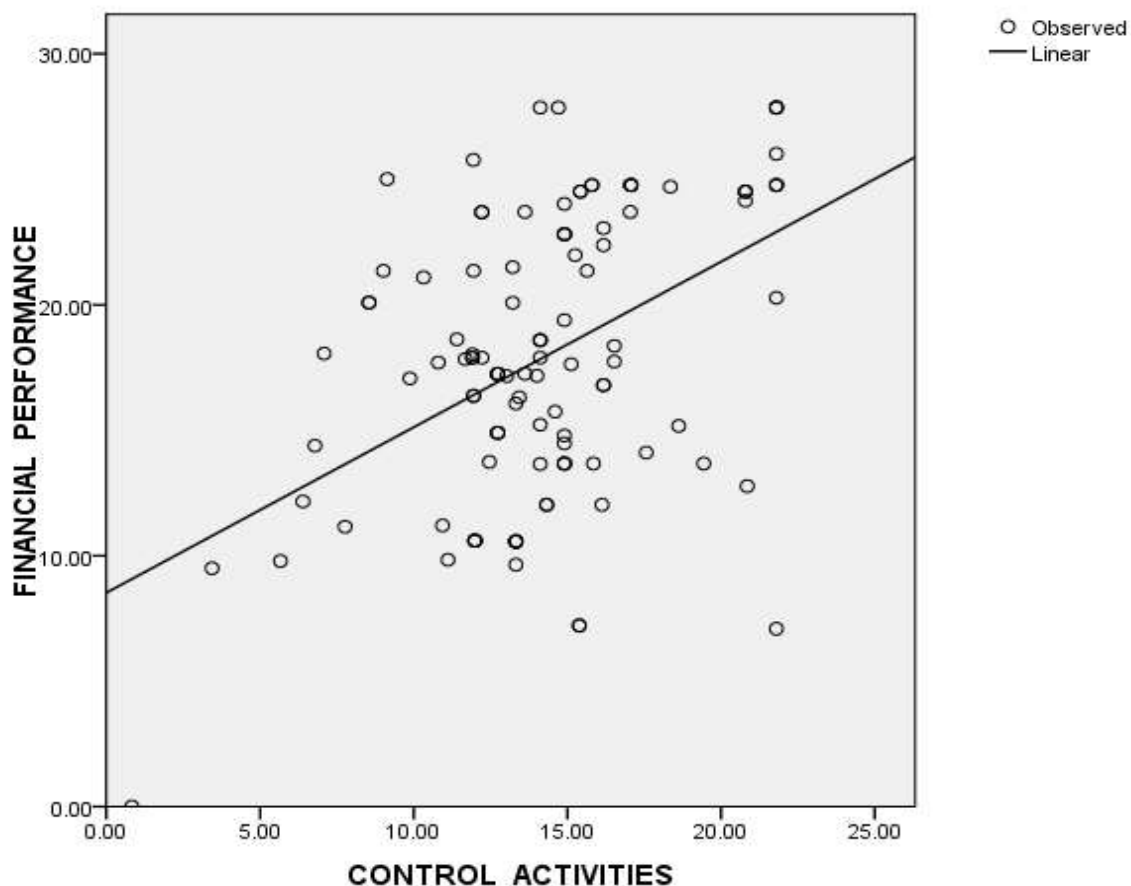


Figure 4.5: Regression Model on Internal Control Activities Versus Financial Performance

Table 4.25 presents the regression model of internal control activities on financial performance. As presented in the table, the coefficient of determination R square is 0.209 and R is 0.457 at 0.05 significance level. The coefficient of determination indicates that 20.2% of the variation on financial performance is influenced by internal control activities. This implies that there exists a positive significant relationship between internal control activities and financial performance.

Table 4.25: Correlations of Control Activities and Financial Performance

			Correlations	
			Financial Performance	Control Activities
Financial Performance	Pearson Correlation		1	.457**
	Sig. (2-tailed)			.000
	N		115	115
Control Activities	Pearson Correlation		.457**	1
	Sig. (2-tailed)		.000	
	N		115	115
**. Correlation is significant at the 0.01 level (2-tailed).				
R		.457		
R Square		.209		
Adjusted R Square		.202		
Std. Error of the Estimate		5.08977		

The Analysis of variance (ANOVA) results as shown in Table 4.26 confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant positive relationship between internal control activities and financial performance.

Table 4.26: Analysis of Variance (ANOVA) for Control Activities

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	771.882	1	771.882	29.796	.000 ^a
	Residual	2927.346	113	25.906		
	Total	3699.228	114			

a. Predictors: (Constant), Control Activities

The results further indicate that internal control activities have a positive and significant effect on financial performance (Table 4.27). The fitted model $FP = 8.523 + 0.660 * X_4$. This implies that a unit change in control activity will increase financial performance by the rate of 0.660. Even when internal control activities are non-existence, financial performance is still positive at 8.523 indicating that there are other drivers of financial performance including internal control environment, internal audit function and corporate governance.

Table 4.27: Control Activities and Financial Performance

Coefficient

Model		Unstandardized		Standardized		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	8.523	1.788		4.766	.000
	Control Activities	.660	.121	.457	5.459	.000

a. Dependent Variable: Financial Performance

4.7.5 Regression Analysis on Corporate Governance Versus Financial Performance

H_0 : There is no significant relationship between corporate governance and financial performance.

Regression analysis was conducted to determine the significance of the relationship of corporate governance against financial performance. Figure 4.6 illustrates scatter plot diagram of corporate governance versus financial performance. The Figure 4.6 presents that all the points/ observations appear in the first quadrante and the line of best of fit indicates an estimate line that is increasingly positively upwards. This implies that there is linear relationship between corporate governance and financial performance.

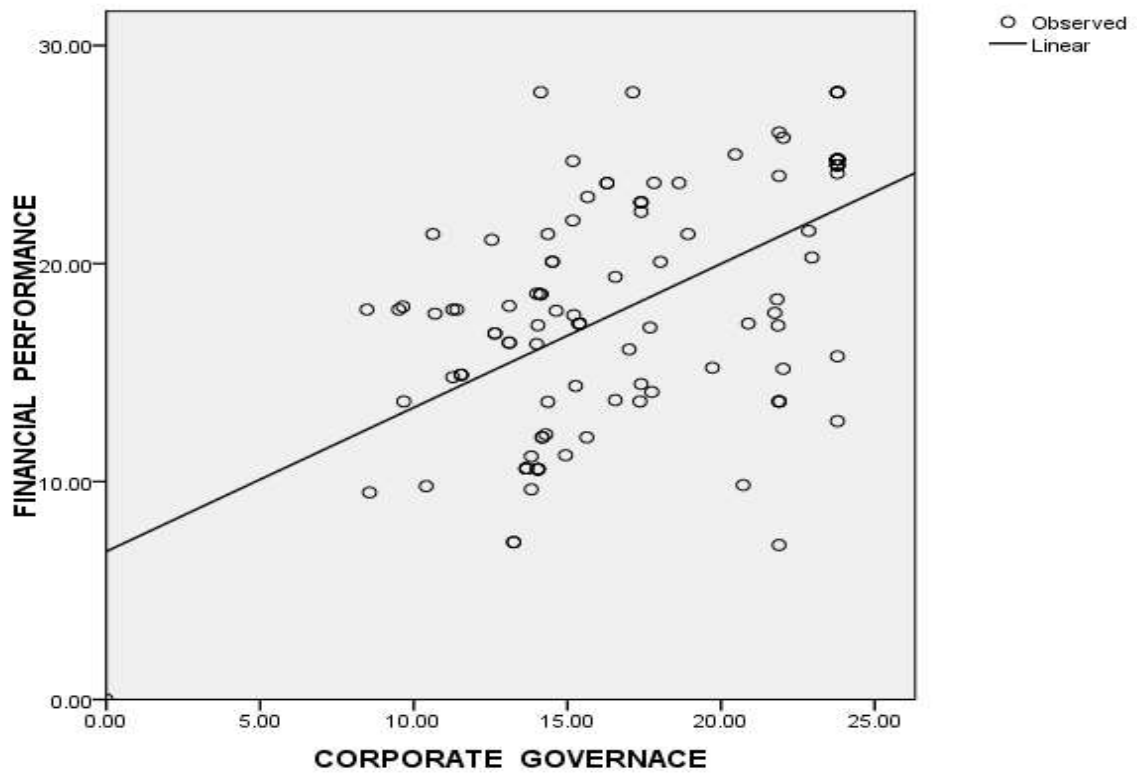


Figure 4.6: Regression Model on Corporate Governance Versus Financial Performance

Table 4.28 presents the regression model of corporate governance on financial performance. As presented in the table 4.28, the coefficient of determination R square is 0.307 and R is 0.554 at 0.05 significance level. The coefficient of determination indicates that 30% of the variation on financial performance is influenced by corporate governance. This implies that there exists a positive significant relationship between corporate governance and financial performance.

Table 4.28: Correlations of Corporate Governance and Financial Performance

		Correlations	
		Financial Performance	Corporate Governance
Financial Performance	Pearson Correlation	1	.554**
	Sig. (2-tailed)		.000
	N	115	115
Corporate Governance	Pearson Correlation	.554**	1
	Sig. (2-tailed)	.000	
	N	115	115
** . Correlation is significant at the 0.01 level (2-tailed).			
R		.554	
R Square		.307	
Adjusted R Square		.300	
Std. Error of the Estimate		4.76444	

The Analysis of variance (ANOVA) results as shown in Table 4.29 confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant positive relationship between corporate governance and financial performance.

Table 4.29: Analysis of Variance (ANOVA) for Corporate Governance

ANOVA

The results further indicate that corporate governance has a positive and significant

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1134.138	1	1134.138	49.962	.000 ^a
	Residual	2565.090	113	22.700		
	Total	3699.228	114			

a. Predictors: (Constant), Corporate governance

effect on financial performance (Table 4.30). The fitted model $FP = 6.793 + 0.660 * X_5$. This implies that a unit change in corporate governance will increase financial performance by the rate of 0.660. Even when corporate governance is non-existence, financial performance is still positive at 6.793 indicating that there are other drivers of financial performance including internal control environment, internal audit function and control activities.

Table 4.30: Corporate Governance and Financial Performance

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	6.793	1.638		4.148	.000
Corporate Governance	.660	.093	.554	7.068	.000

4.7.6 Regression Analysis on Moderating Effect of Government Policy on Internal Control Systems and Financial Performance

To test the moderating effect of government policy the following hypothesis was used.

H₀₆: There is no moderating effect of government policy in the relationship between internal control systems and financial performance of companies quoted in Nairobi Security Exchange. To test the above hypothesis, moderated multiple regression (MMR) model (Model 3) was used to establish the interaction effect and test the moderating effect of government policy between internal control systems and financial performance.

The MMR statistical model was given as:

$$Y = a + bX + cZ + dX*Z + \varepsilon \text{ (Model 3)}$$

Where

Variable *Y* was the financial performance response variable which in this case was aggregated from net profit, return on equity and earning per share. Variable *Z* was the moderator government policy.

a is the least squares estimates of the intercept

b is least squares estimates of the population regression coefficient for *Z*

d is the coefficient of *X*Z*

ε is the error

Table 4.31 presents the regression model on moderating effects of government policy in the relationship between variables of internal control systems (internal control environment, internal audit function, risk management, control activities, corporate governance) and financial performance. The results indicate the effect of moderating variable (government policy) was significant as P-value was less than 0.05 (Table 4.31). The resulting moderating models for internal control environment, internal audit function, risk management, control activities and corporate governance is represented by:

FP=0.299 internal control environment +0.718 Government policy +0.008 (Internal control environment*Government policy).

FP=0.341 internal Audit function+0.903 Government policy +0.013 (Internal Audit function*Government policy)

FP=0.519 Risk management control +0.690 Government policy +0.015 (Risk management *Government policy)

FP=0.949 control activities +0.718 Government policy +0.029 (control activities*Government policy)

FP=1.039 corporate governance +0.522 Government policy +0.028 (Corporate governance *Government policy). The results are derived from table 4.31.

Table 4.31: Moderating Effect of Government Policy

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Internal Control Environment	.299	.055	.656	5.384	.000
Government Policy	.718	.140	.600	5.137	.000
I ₁	.008	.004	.287	2.201	.030
Internal Audit Function	.341	.077	.582	4.436	.000
Government Policy	.903	.162	.755	5.572	.000
I ₂	.013	.005	.374	2.558	.012
Risk Management	.519	.079	.767	6.532	.000
Government Policy	.690	.092	.576	7.513	.000
I ₃	.015	.005	.366	3.032	.003
Control Activities	.949	.184	.747	5.150	.000
Government Policy	.718	.147	.600	4.884	.000
I ₄	.029	.010	.384	2.889	.005
Corporate Governance	1.039	.150	.969	6.935	.000
Government Policy	.522	.142	.436	3.691	.000
I ₅	.028	.007	.443	3.761	.000

4.7.7 Analysis on Financial Performance: Secondary Data

The researcher further analysed financial performance of the quoted companies using secondary data obtained from Nairobi Securities Exchange. Means of net profit, return on equity and earning per share for 7 years were computed. The result indicated that there was no significant difference between the means of net profit, return on equity and earning per share. The means of net profit is shown in figure 4.7

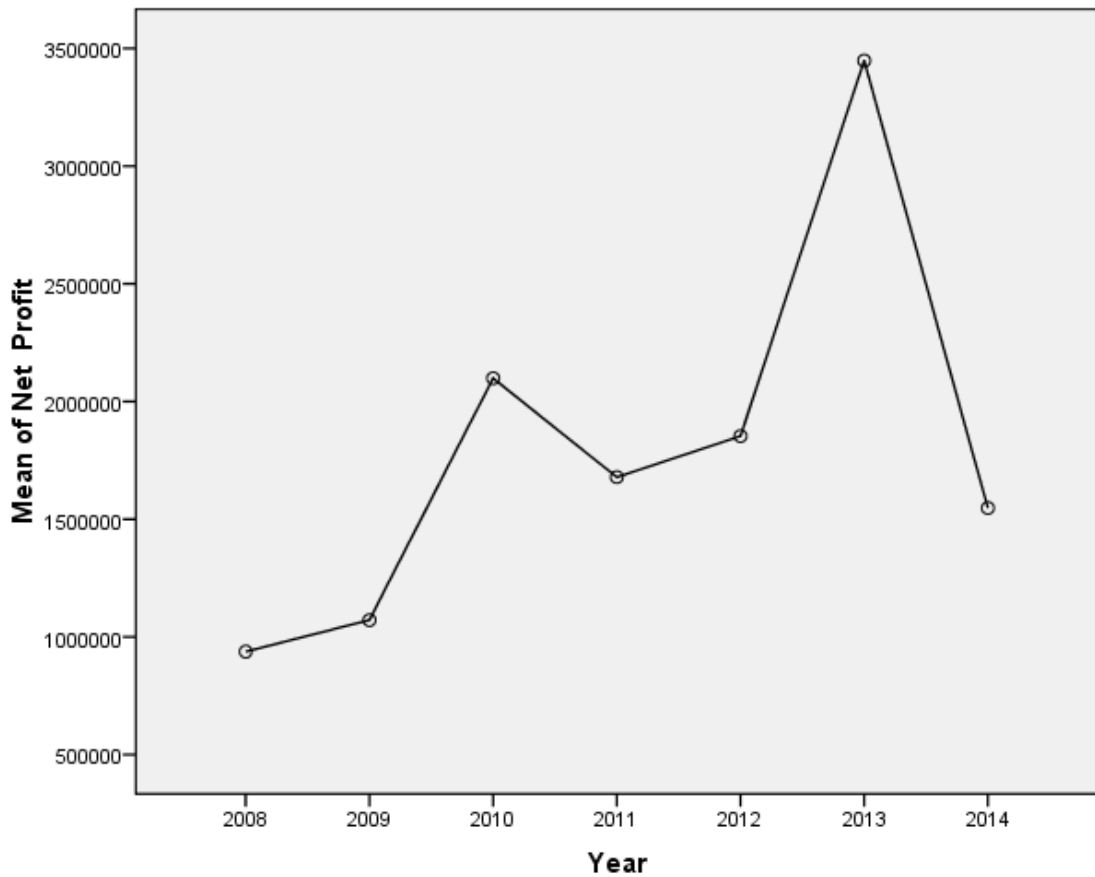


Figure 4.7: Mean of Net Profit

The Analysis of variance (ANOVA) results as shown in Table 4.32 indicates that there is no significant difference between the means of net profit for the period under the review as Pvalue 0.463 is greater than 0.05.

Table 4.32: Analysis of Variance (ANOVA) for Net Profit

ANOVA					
Net Profit					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.942*10 ¹⁴	7	2.774	.945	.463
Within Groups	1.082*10 ¹⁶	316	3.425		
Total	1.102*10 ¹⁶	323			

Return on equity: Analysis of data from NSE was done and the means of return on equity for 7years was computed. The presentation of the results are shown in figure 4.8. Analysis of anova done showed that there was no significant difference between the means of return on equity for the period as P value of 0.611 was higher than 0.05 as shown by table 4.33.

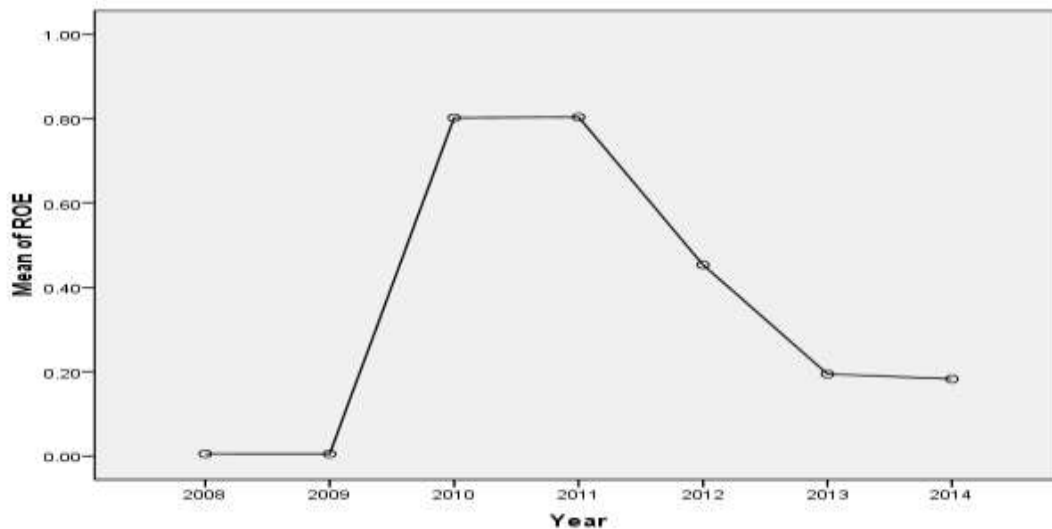


Figure 4.8: Mean of Return on Equity

Table 4.33 Analysis of Variance (ANOVA) for Return on Equity

ANOVA

ROE					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32.092	7	4.585	.749	.611
Within Groups	2256.307	316	7.140		
Total	2288.399	323			

Earning per share: The means of earning per share was computed for 7years and the result are shown in figure 4.9. Also analysis of anova was done and it was found that the Pvalue 0.587 was greater than 0.05 which meant that there was no significant difference between the means of earning per share for the period as indicated in table 4.34.

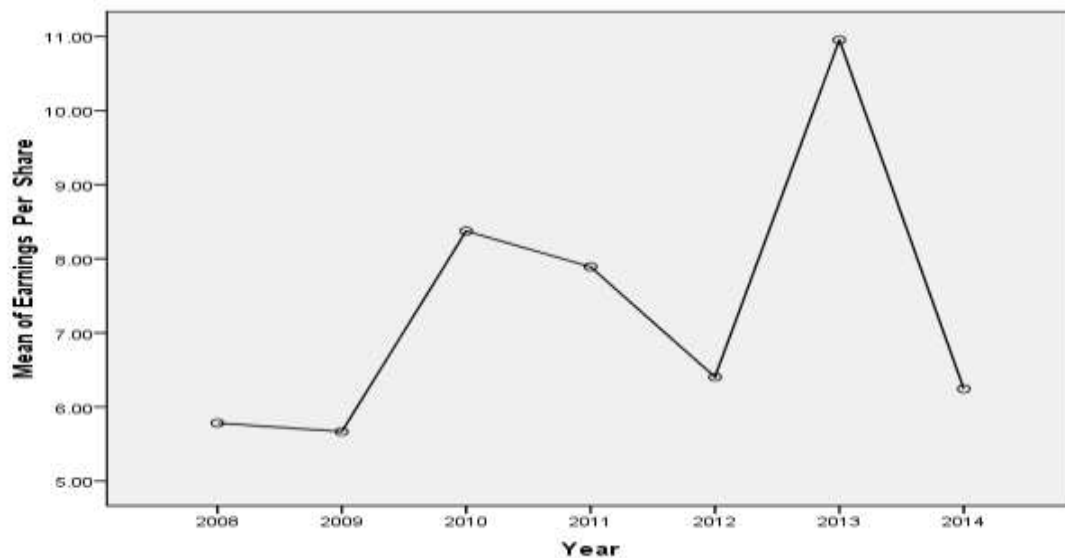


Figure 4.9: Mean of Earnings per Share

Table 4.34: Analysis of Variance (ANOVA) for Earning per share

ANOVA

Earnings per Share

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1021.168	7	145.881	.778	.587
Within Groups	69100.698	316	218.673		
Total	70121.866	323			

The findings show that from 2007 to 2014, there was no major improvement in the overall financial performance of quoted companies in Nairobi stock exchange. The

result tend to agree with the finding of (World Bank Report, 2013) that since the beginning of the global crisis in 2008, the economy has struggled to recover from a number of shocks, including the aftermath of the violence that followed the elections in 2007, reduced demand in the Euro zone, Kenya’s largest trading partner, and the impact resulting from high international oil prices. These shocks resulted in low export growth and higher imports. Unfavourable climatic conditions hurt agriculture output, and hydro power generation in 2009 and 2010. Security threats impacted growth in the service sector, through reduced numbers of tourists.

4.8 Combined Effect Model

4.8.1 Multiple Linear Regression for all Variables

The study aimed at finding out the overall effect of the independent variables that is internal control environment, internal audit function, risk management, internal control activities and corporate governance on financial performance.

The model $FP = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$ explained 94.1% of the variations in financial performance as shown in Table 4.35. This showed that internal control environment, internal audit function, risk management, control activities and corporate governance explained 94.1% of the variation in financial performance.

Table 4.35: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.971 ^a	.944	.941	4.57039

a. Predictors: internal control environment, internal audit function, risk management, control activities, corporate governance

The analysis of variance results in Table 4.36 indicates that the model fit is significant at $p=0.000$, $F=367.58$ with 110 degrees of freedom. This implies that internal control environment, internal audit function, risk management, control activities and corporate governance has a significant and positive combined effect on financial performance.

Table 4.36: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38391.655	5	7678.331	367.587	.000 ^a
	Residual	2297.733	110	20.888		
	Total	40689.388 ^b	115			

The overall model as shown on Table 4.37 indicated that corporate governance and risk management were highly significant at $p=0.000$ and $p=0.000$ respectively. However control activity, internal control environment and internal audit function were significant at $p=0.0284$, 0.034 and 0.0374 . The fitted model was $FP= 0.12X_1+ 0.104X_2+ 0.229X_3+ 103.X_4+ 0.521X_5$

Table 4.37: Relationship between Internal Control Systems and Financial Performance

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	Internal Control Environment	.120	.056	.264	2.144	.034
	Internal Audit Function	.1043	.076	.074	1.368	.0374
	Risk Management	.229	.064	.338	3.590	.000
	Control Activities	.103	.041	.031	2.492	.0281
	Corporate Governance	.521	.137	.485	3.788	.000

a. Dependent Variable: Financial performance

b. Linear Regression through the Origin

4.8.2 Multiple Linear Regression for all Variables After Moderation

The study also aimed at finding out the moderating effect of government policy in the relationship between internal control systems and financial performance of companies quoted in Nairobi Security exchange. The model $FP = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \epsilon$ explained 96.1% of the variations in financial performance as shown in Table 4.38. The adjusted r changed from 94.1 to 96.1 meaning there is significant moderating effect of government policy in the relationship between internal control systems and financial performance

Table 4.38: Model Summary After Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982	.964	.961	4.54886

The analysis of variance results Table 4.39 indicates that the model fit is significant at $p=0.000$, $F=309.57.58$ with 109 degrees of freedom. This implies that there is significant moderating effect of government policy in the relationship between internal control systems and financial performance.

Table 4.39: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38433.945	6	6405.657	309.570	.000
	Residual	2255.444	109	20.692		
	Total	40689.388	115			

The moderating effect of government policy was found to have significant influence on the relationship between internal control systems and the financial performance as shown in table 4.40. The new fitted model now becomes $FP = \beta_0 + 0.109X_1 + .066X_2 + 0.240X_3 + 0.123X_4 + 0.444X_5 + 0.222X_6 + \varepsilon$

Table 4.40: Moderating Effect of Government Policy on Financial Performance

		Coefficients				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	Internal Control Environment	.109	.037	.240	2.943	.005
	Internal Audit Function	.066	.036	.113	1.853	.0396
	Risk Management	.240	.064	.354	3.755	.000
	Control Activities	.123	.073	.096	1.687	.0493
	Corporate Governance	.444	.147	.414	3.026	.003
	Government Policy	.222	.091	.186	2.430	.0156

Pearson correlation results shown on Table 4.41 indicated that Risk management is leading with the highest influence on financial performance with a correlation of 0.555, followed by corporate governance at 0.554, internal control activity with a correlation of 0.457, internal control environment with a correlation of 0.42, government policy with a correlation of 0.401 and finally internal audit function with a correlation of 0.341. Therefore the study concluded that Risk management, corporate governance, internal control environment and internal control activity were the most prominent indicators of internal control systems in companies quoted in Nairobi securities exchange.

Table 4.41: Correlation Matrix

		Financial Performance	Internal Control Environment	Internal Audit Function	Risk Management	Control Activities	Corporate Governance	Government Policy
Financial Performance	Pearson Correlation	1	.420**	.341**	.555**	.457**	.554**	.401**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	115	115	115	115	115	115	115
Internal Control Environment	Pearson Correlation	.420**	1	.497**	.512**	.542**	.538**	.432**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	115	115	115	115	115	115	115
Internal Audit Function	Pearson Correlation	.341**	.497**	1	.482**	.532**	.529**	.502**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	115	115	115	115	115	115	115
Risk Management	Pearson Correlation	.555**	.512**	.482**	1	.558**	.537**	.398**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	115	115	115	115	115	115	115
Control Activities	Pearson Correlation	.457**	.542**	.532**	.558**	1	.488**	.520**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	115	115	115	115	115	115	115
Corporate Governance	Pearson Correlation	.554**	.538**	.529**	.537**	.488**	1	.473**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	115	115	115	115	115	115	115
Government Policy	Pearson Correlation	.401**	.432**	.502**	.398**	.520**	.473**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	115	115	115	115	115	115	115

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

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of major findings of this study, sets out the relevant conclusions and makes recommendations for practice and suggestions for further research based on the findings of this study. The study sought to examine the relationship between internal control systems and financial performance of companies quoted in Nairobi securities exchange.

5.2 Summary of the Findings

The study sought to establish the relationship between internal control systems and financial performance of companies quoted in Nairobi securities exchange. Specifically the study was guided by the following objectives; to investigate the relationship between internal control environment, internal audit function, risk management, internal control activities, and financial performance. The study adopted descriptive research design using both quantitative and qualitative approach. The target population was 372 senior managers in 62 companies quoted in Nairobi Securities exchange. Multi-level random sampling of 144 senior managers in various categories returned 115 (79.8%) valid responses. Survey data was collected by use of a structured questionnaire. The data obtained was analysed using both qualitative and quantitative analysis.

Multiple regression models were used to test whether internal control environment, internal audit function, risk management, internal control activity and corporate governance have any influence on financial performance. It was found that internal control systems had a significant relationship with financial performance in that all the identified factors are predictors of financial performance ($r^2 = 0.944$). Pearson correlation results indicated that risk management was leading with the highest influence on

financial performance at 0.55 followed by corporate governance at 0.554, internal control activity at 0.457, internal control environment at 0.420 and internal audit function at 0.341. It was found that internal control systems had a significant relationship with financial performance in that all the identified factors are predictors of financial performance ($r^2 = 0.944$). The study also showed that government policy had significant moderating influence on the internal control systems and financial performance. The study concluded that risk management followed by corporate governance were the most prominent indicators of internal control systems in companies quoted in Nairobi Securities Exchange.

The study also tested the hypothesized conceptual model and the independent variables had indices fit to the dependent variable that showed a combined significant influence suggesting that the variables studied had direct positive relationship. However, the variables that had major impact were risk management, corporate governance, internal control activity, internal control environment with a correlation of 0.55, 0.554, 0.457 and 0.420 respectively. Based on the research findings it can be concluded that internal control system is a positive significant predictor of financial performance. The findings of the study suggested that internal control systems especially risk management, corporate governance, control activity, internal control environment and internal audit function are significant areas, management of quoted companies should give great attention to in order to improve financial performance of quoted companies.

5.2.1 Relationship Between Internal Control Environment and Financial Performance

Factor analysis was done in order to reduce internal control items to manageable and meaningful size, where all the 18 items met the threshold of 0.4 and above. Descriptive statistics were used to analyze this research objective and other subsequent analysis was done. The results indicated that internal control environment exist in companies quoted in Nairobi Securities Exchange where, 73% of respondents indicated that there is

adequate internal control environment. However, 23% were indifferent and 4% indicated that internal control environment is not adequate.

The correlation analysis also indicated that there is a positive significant relationship between internal control environment and financial performance. The positive relationship was represented by 0.42, and the number of respondents was 115. The findings indicate that the institution which have enforcement of proper internal control systems will always lead to improved financial performance. The findings also indicate that there is a significant positive relationship between internal control system and financial performance

Regression analysis was done where the results indicated that internal control environment had a goodness of fit of 16.9% indicating that internal control environment explained 16.9% of the variation in the financial performance of companies quoted in Nairobi Securities Exchange in Kenya. The results and findings therefore conclude that there was significant association between internal control environment and financial performance.

5.2.2 Relationship Between Internal Audit Function and Financial Performance

Factor analysis was done for internal audit function items and all the 13 questions were retained for further analysis as they had factor analysis of 0.4 and above. The results indicated that internal audit function exist in companies quoted in Nairobi Securities Exchange where, 82% of respondents indicated that there is satisfactory internal audit function is properly embedded in the companies quoted in NSE. However, 12% were indifferent and 6% indicated that internal audit function was not satisfactory.

The correlation analysis also indicated that there is a positive significant relationship between internal audit function and financial performance. The positive relationship was represented by 0.341 and the number of respondents was 115. The findings show that internal audit encompasses oversight activities taken by the board of directors and audit

committees to make sure that the financial reporting process is credible. The findings also show that companies quoted in Nairobi Securities Exchange have a have internal audit department which play the role of independent and objective assurance. This is expected as a company cannot be listed without an established internal audit function. Regression analysis was done where the results indicated that internal audit had a goodness of fit of 10.8% indicating that internal audit function explained 10.8% of the variation in the financial performance of companies quoted in Nairobi Securities Exchange in Kenya. The results and findings therefore conclude that there was significant association between internal audit function and financial performance.

5.2.3 Relationship Between Risk Management and Financial Performance

Factor analysis was done to filter the risk management items to manageable and meaningful size of 0.4 and above. All the 13 questions were retained for further analysis. The results indicated that Risk management exist in companies quoted in Nairobi Securities Exchange where, 65% of respondents indicated that there is satisfactory risk management embedded in the running of companies quoted in NSE. However, 25% were indifferent and 10% indicated that Risk management was not entrenched.

The correlation analysis also indicated that there is a positive significant relationship between Risk management and financial performance. The positive relationship was represented by 0.555 and the number of respondents was 115. The results indicate that in recent years, stakeholder's expectations from internal audit functions have changed significantly. The focus has now moved from a compliance and financial control function to facilitating organizations to proactively identify, assess and control risks. Regression analysis was done where the results indicated that risk management had a goodness of fit of 30.2% indicating that risk management explained 30.2% of the variation in the financial performance of companies quoted in Nairobi Securities Exchange in Kenya. The results and findings therefore conclude that there was significant association between risk management and financial performance.

5.2.4 Relationship Between Internal Control Activity and Financial Performance

Factor analysis was done for internal control activity items and all the 6 questions were retained for further analysis as they had factor analysis of 0.4 and above. The results indicated that internal control activity exists in companies quoted in Nairobi Securities Exchange where, 71% of respondents indicated that there is satisfactory internal control activity embedded in the companies quoted in NSE. However, 21% were indifferent and 8% indicated that internal control activity was not nonexistence.

The correlation analysis also indicated that there is a positive significant relationship between internal control activity and financial performance. The positive relationship was represented by 0.457 and the number of respondents was 115. The result indicate that control activities are another component of internal controls and that control activities are policies and procedures that help ensure that management directives are carried out. The results also indicate that internal controls encompass a set of rules, policies, and procedures an organization implements to provide reasonable assurance that: (a) its financial reports are reliable, (b) its operations are effective and efficient, and (c) its activities comply with applicable laws and regulations.

The Regression analysis was done where the results indicated that internal control activity had a goodness of fit of 20.2% indicating that internal control activity explained 20.2% of the variation in the financial performance of companies quoted in Nairobi Securities Exchange in Kenya. The results and findings therefore conclude that there was significant association between internal control activity and financial performance.

5.2.5 Relationship Between Corporate Governance and Financial Performance

Factor analysis was done for corporate governance items and all the 7 questions were retained for further analysis as they had factor analysis of 0.4 and above. The results indicated that corporate governance is embedded in companies quoted in Nairobi Securities Exchange where, 71% of respondents indicated that there is satisfactory

corporate governance was embedded in the companies quoted in NSE. However, 22% were indifferent and 7% indicated that corporate governance was not embedded in companies quoted in NSE. The correlation analysis also indicated that there is a positive significant relationship between corporate governance and financial performance. The positive relationship was represented by 0.554 and the number of respondents was 115.

The results indicate that better corporate governance is highly correlated with better operating performance and market valuation. Also the results show that return-earnings were positively related to the strength of shareholder rights and quality of governance practices. The results of their study suggested that good corporate governance mechanisms provides greater oversight of the financial reporting process and ensures higher-quality earnings.

The Regression analysis was done where the results indicated that internal control activity had a goodness of fit of 30% indicating that corporate governance explained 30% of the variation in the financial performance of companies quoted in Nairobi Securities Exchange in Kenya. The results and findings therefore conclude that there was significant association between internal corporate governance and financial performance.

5.2.6 Moderating Effect of Government Policy on Internal Control Systems and Financial Performance

Factor analysis was done for government policy items and all the 7 questions were retained for further analysis as they had factor analysis of 0.4 and above. The results indicated that government policy has a moderating effect on internal control systems and financial performance of companies quoted in Nairobi Securities Exchangewhere, 86% of respondents indicated that government policy has influence on internal controls and financial performance of companies quoted in NSE. However, 11% were indifferent and 3% indicated that government policy does not influence internal control systems and

financial performance of companies quoted in NSE. The results show that tools of the government can directly or indirectly influence the financial performance of organizations.

The Regression analysis was done where the results indicated that the overall model before moderation had adjusted r of 94.4% and this changed to adjusted r of 96.1% after moderation. The results and findings therefore conclude that there was significant moderation effect of government policy on internal control systems and financial performance.

5.3 Conclusion

Confirming the argument of the findings of this study suggests that internal control systems is one significant area quoted companies should give attention to in order to enhance their financial performance. The findings of this research support the findings of previous researchers. Further it can be concluded that effective internal control systems must incorporate the effects of corporate governance and government policy to enhance financial performance.

This study elicits the key determinants of internal control systems, which can be nurtured by the management of companies quoted in NSE to better their financial performance. Hence this study widens the scope of identifying measures that will enhance organization financial performance like internal control environment, internal audit function, risk management and corporate governance. Therefore companies have to invest in establishing strong internal control systems to realize better their financial performance.

The model can be used by organizations management to focus on key aspects of internal control systems that could result in improved financial performance Risk management and corporate governance play a significant role in financial performance and hence managers of quoted companies should entrench risk management and strong corporate governance to

better financial performance of their companies. From the above conclusion, strong internal control systems must be entrenched in all levels of the organization by the managers to enhance organization's financial performance. The study thus rejects the null hypothesis.

5.4 Recommendation

The following recommendations were derived from the results, findings and conclusions of the study. The management of quoted companies should exert collective efforts in identifying the ideal mix of effective and efficient internal control systems that matches their business needs and invest in them. The managers should embrace enterprise risk management and good corporate governance to maximize on the financial benefits of internal control systems. Good corporate governance will not only ensure that management does not override the internal controls but also help in reducing corruption and assist in enhancing financial performance of companies quoted in NSE.

The management should also ensure that their organizations have strong internal control environment where internal control activities inform of policies and procedures are adequate. The control environment and control activities should on a regular basis be evaluated by internal audit department to provide management with the assurance on the adequacy and effectiveness of mitigation controls that management has put in place.

5.5 Contribution of the Study to the Body of Knowledge, Theory and Practice

This study contributes to the body of knowledge both in methodology, theory and practice. In order to derive more valuable and broader conclusions, the methodology adopted in this research involved administering questionnaires across a wider range of quoted companies in various sectors, in order to increase the generalizability of the results. As lack of strong internal control system leads to poor performance among quoted companies, this research is of scholarly interest as it has further un-covered factors that lead to enhanced internal control systems. This is likewise true for the testing of a possible relation between internal control systems and financial performance.

In the context of aspiring to bring out supplemental factors that enhance internal control systems, recent studies ignored to examine the effect of corporate governance and moderating effect of government policy on financial performance. This research gap has been addressed in this thesis by administering questionnaires at the individual level over and above quantitative analysis.

The study has established that the main drivers of financial performance are risk management, corporate governance, internal control environment, internal control activity and internal audit function. Further, the study has established that financial performance of quoted companies is affected by the government policy.

5.5.1 Implications of the Study to Practice

The results and findings of this research suggest that the management of quoted companies in Nairobi securities exchange needs to incorporate enterprise risk management in their daily operations since risk management is a very important factor in financial performance. In addition, corporate governance, internal control environment and control activity need to be given a priority as the internal audit function comes last since internal audit function can only be effective if good corporate governance is in place and there are strong internal control environment.

The top management should ensure that right structures exist in the organization to support good corporate governance, risk management, internal control environment and independent internal audit. This would help to build a positive culture that ensures that management do not override the internal control systems that will then translate to healthy financial performance. All managers should ensure that there are adequate internal control activities that safeguard the assets of the company from misuse and frauds. The internal audit function should carry out regular reviews of entire system of internal controls to provide assurance to the board and management on adequacy and effectiveness of mitigation controls that are in place.

Having identified the moderating role of government policy, it should also be of special interest for those, designing internal control systems. Managers should design and implement flexible internal control systems that can accommodate changes in government policy for example a billing control system should be flexible to accommodate changes in prices and taxes that may occur as a result of government actions.

5.5.2 Theoretical Implications

This study has made several important contributions to the internal control systems and corporate governance. Firstly, this study confirms existing literature in terms of the positive influence internal control systems and financial performance. Scholarly research has clearly examined the link between internal control systems and financial performance for example Mugo (2013) studied on effect of internal control on financial performance of technical training institution. Although he found a positive relationship between internal control and financial performance, his research failed to show the effect of corporate governance and government policy on financial performance of companies.

Kamau (2013) did a study of effects of internal control on financial performance of manufacturing firms in Kenya. The study also failed to clearly show the contribution of corporate governance and government policy on the financial performance of companies. This research has clearly shown the effect of internal control systems including corporate governance on financial performance and also clearly shows the moderating effect of government policy on the internal control systems and financial performance. Secondly, this research helped to gain deeper insights into the predictors of internal control systems. On the one hand, this finding confirms some of the predictors of the current model of internal control system. On the other hand, the positive influence of internal control systems on financial performance extends the current state of knowledge in terms of antecedents of internal control systems. Moreover, results from the qualitative investigation also propose to extend the drivers of financial performance

as to include corporate governance as another important predictor of financial performance.

5.6 Areas for Further Research

Despite the contributions made by this study, it highlights a few aspects to be considered by future researchers. Firstly, the propositions put forward in this study emphasize the importance of having efficient and effective internal control systems in companies. The study focused on companies quoted in Nairobi Securities Exchange which are highly regulated by Capital Market Authority Act. Corporate governance, risk management, control activity and internal control environment seemed to have much impact on financial performance than internal audit. This means that if the four key determinants of financial performance are fixed in corporate entities there will be less corruption and financial scandals which will lead to enhanced financial performance.

Subsequent studies should consider replicating this study in the unquoted companies in Kenya in order to establish the role of internal audit in companies unquoted in companies. Secondly, future research may attempt to replicate the study in different economies to confirm the role of internal control systems and corporate governance on financial performance of public quoted companies.

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APPENDICES

Appendix 1: Letter of Introduction by Researcher

Date: _____

Dear Respondent,

This questionnaire is aimed at collecting data for academic research purposes on “Effect of Internal Control Systems on Financial Performance of Companies Quoted in the Nairobi Securities Exchange”. The study is in partial fulfilment of the requirements for the award of a PhD degree in Business Administration of Jomo Kenyatta University of Agriculture and Technology (JKUAT).

Please be assured that any information collected through this questionnaire will be treated with utmost confidence and will be used for research purposes only. Thank you in advance for your time and cooperation.

Yours faithfully,

John Kang’aru Kinyua

Student, PhD, Business Administration

Registration Number HD433-C004-0968/2011

Appendix 2: Questionnaire

EFFECT OF INTERNAL CONTROL SYSTEMS ON FINANCIAL PERFORMANCE OF COMPANIES QUOTED IN NAIROBI SECURITIES EXCHANGE

Please read each question carefully and follow the instruction given. Kindly answer the questions by ticking in the box that best describes your answer or writing your answers in the spaces provided where applicable. The answers provided will be for academic purpose only and will be treated with utmost confidentiality.

1. PART 1: Background Information

1.1 Name (Optional) _____

1.2 Please indicate your Gender Female () Male ()

1.3 Name of your organization/ sector _____

1.4 What is your position in your organisation _____

1.5 What is your highest educational qualification? Please tick as appropriate;

Diploma () Graduate () Postgraduate () other _____

1.6 For how long have you worked in this organization? Below 5 years () 6-10 years ()

11-15 years () 16-20 years () Over 20 years ()

2. PART 2: Internal control environment

Using the following table and the scale provided below, please tick on the statements which best describes your opinion of internal control environment in your organization.

Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

	Integrity and ethical values	5	4	3	2	1
2.1	The company has appropriate entity policies regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct have been established and they adequately communicated					
2.2	Management demonstrate the appropriate “tone at the top”, including explicit moral guidance about what is right and wrong and is this communicated in both words and deeds?					
2.3	Management dealings with employees, suppliers, citizens, bondholders, shareholders, and auditors are based on honesty and fairness?					
	Commitment to competence					
2.4	Employee job descriptions, including specific duties, reporting responsibilities, and constraints are clearly established and effectively communicated to employees?					
2.5	Management determines the level of knowledge and skills needed to perform a particular job and this information is used in the hiring process					
		5	4	3	2	1

2.6	The company adequately compensate employees in order to attract qualified individuals.					
2.7	Employee performance evaluation techniques are implemented to identify incompetent or ineffective employees					

	Management philosophy and operating style	5	4	3	2	1
2.8	Management and operating decisions are not dominated by a few individuals					
2.9	Management analyses the risks and potential benefits of a venture before making a decision					
2.10	Management has mechanisms to anticipate, identify and react to events or activities that affect achieving company objectives?					
	Organizational structure					
2.11	The organization of the company is clearly defined in terms of lines of authority and responsibility					
2.12	There is adequate supervision and monitoring of decentralized operations					
2.13	The organizational structure appropriate for the size and complexity of the entity					
	Assignment of authority and responsibility	5	4	3	2	1
2.14	There is clear assignment of responsibility and delegation of authority to deal with such matters as organizational goals and objectives, operating functions, and regulatory					

	requirements?					
2.15	All employees have job responsibilities, including specific duties, reporting relationships clearly established and communicated.					
	Human resource policy and practices					
2.16	All personnel, including key managers, possess adequate knowledge and experience to discharge their responsibilities.					
2.17	Turnover of key personnel is relatively low					
2.18	Management has shown commitment to competence and ensured that personnel receive adequate training to perform their duties.					

2.19 Do you have any other comments on control environment in your organization mentioned above?

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SECTION III: INTERNAL AUDIT FUNCTION

Using the following Table, please tick on the following statements which best describe your opinion on internal Audit function in your organization;

Scale: **Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1**

	Monitoring and evaluation	5	4	3	2	1
3.1	The company has a functional internal audit unit/department					
3.2	The timing of the audit in this company is appropriate.					
3.3	The internal audit unit in the company has developed an internal audit manual that guides audit operations such as planning, implementation, monitoring, and evaluation.					
3.4	The audit is always completed on a timely basis.					
	Fraud prevention, detection and control					
3.5	Internal audit findings are reported directly to top management and the audit and risk sub-committee of the board.					
3.6	A majority of the audit team members in the company are registered members of ICPAK or professional organizations internationally recognised.					
3.7	The internal audit unit in the company plays a major role in fraud detection and prevention					
3.8	Recommendations of the internal audit unit are taken very seriously in the organization					

		5	4	3	2	1
3.9	The internal auditor(s) demonstrate professionalism and an objective approach.					
3.10	The audit department provides management with assurance that there are no major weaknesses and/or major internal control weakness are reported.					
	Reporting					
3.11	The internal audit department reports functionally to the audit committee of the Board					
3.12	The internal audit department conducts its work independent of the management					
3.13	The head of the Internal audit function is a member of the senior management team in the company and reports to the CEO					

3.14 Please use the space below to explain any specific ratings, to provide additional comments, or to offer suggestions to improve effectiveness of internal audits in the financial performance of your company.

Comments:

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SECTION IV: RISK MANAGEMENT

Using the following table and the scale provided below, please tick on the following statements which best describe your opinion of Risk management in your organization;

Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

	Risk identification	5	4	3	2	1
4.1	The company has a well-documented policy on risk management					
4.2	The company regularly updates the risk register					
4.3	The company management encourage reporting of events in order to identify the risks					
4.4	The company has a monitoring system that identifies potential risks					
	Risk evaluation					
4.5	There is adequate capacity to perform risk assessment in my company					
4.6	The company has a risk review process after implementation of the mitigation measures/control for identification of risks					
4.7	The company management effectively communicate risks to the employees and the stakeholders					
4.8	The management adequately evaluates and records the risk when making important decisions (launch of projects or new products, development of strategic plans, investment plans)					
	Risk mitigation					
4.9	The company has adequately implemented any inspection plans to reduce the inherent risks which are periodically revised.					

4.10	There exists a Risk Management committee in the organization					
		5	4	3	2	1
4.11	Risks identified are reviewed and decisions taken on the same by a Risk Management committee					
4.12	Recommendations by the Risk Management committee are reported directly to top management and the audit and risk sub-committee of the board					
4.13	Management uses instruments for risk transfer or sharing with other organizations (e.g insurance companies)					

4.14. What are the limitations that impede your company to implement the risk mitigation plans

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4.15. Which do you think could be the main risk for your company

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SECTION V: CONTROL ACTIVITIES

Using the following table and the scale provided below, please tick on the following statements which best describe your opinion of Risk management in your organization;

Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

	Information and communication	5	4	3	2	1
5.1	The company has well established information and communication channels					
5.2	The company utilises 'suggestion boxes' for obtaining information that is sensitive and confidential for the effective management of the organization					
5.3	Whistle blowing in the company has been and continues to be an effective way to obtain critical and sensitive information necessary for curbing cases of fraudulent activities					
	Policies and procedure					
5.4	The company has developed effective policies and procedures on information and communication					
5.5	The company policies on information and communications provide well established techniques and mechanisms to address non-compliance in financial matters.					
5.6	The company has clear segregation of duties for the various financial functions?					

5.7. From your experience, how can control activities be enhanced in your organization to improve financial performance?

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5.8. Is there any other information you would like to add relating to control activities not mentioned in this questionnaire? (specify)

.....

SECTION VI: CORPORATE GOVERNANCE

Using the Table below, please tick on the following statements which best describe your opinion on corporate governance in your organization;

Scale: **Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1**

	Statement	5	4	3	2	1
6.1	The company has a well-established and effective Board					
6.2	Recruitment and appointment of Board members is approved by the Shareholders during the Annual General Meetings					
6.3	The different members of the board in the company bring unique experiences and expertise to the management of the company					
6.4	All members of the board of directors belong to various specialised sub-committee of the board					
6.5	The company has well established corporate governance policies and procedures and practises that guide the affairs of the company					

6.6	The company has a well-developed policy on conflict of interest and procedures on how to handle any conflict of interest cases that may arise from time to time					
6.7	Succession planning and remuneration of the board of directors are issues of significant interest and these are the responsibility of the respective sub-committees					

6.8. From your experience, how can corporate governance be enhanced in your organization to improve financial performance?

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SECTION VII: GOVERNMENT POLICY

Using the following Table, please tick on the following statements which best describe your opinion on government policy in your organization;

Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1

	Statement	5	4	3	2	1
7.1	The company operations comply with the all set government policies					
7.2	There exists a legal unit within the company that updates management on any changes in the regulatory environment					
7.3	Recommendations of the legal unit in the company are reported					

	directly to the audit and risk sub-committee of the board					
7.4	The company is greatly affected by government action on market prices e.g. minimum wage bill					
7.5	Changes in government regulations are implemented in the company without delay					
7.6	Financial performance of the company is affected by changes in government rules and regulation					
7.7	The company frequently review its policies to reflect changes in government changes					

7.8. Is there any other information you would like to add relating to government policy not mentioned in this questionnaire?

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SECTION VIII: FINANCIAL PERFORMANCE

Using the following Table, please tick on the following statements which best describe your opinion on government policy in your organization;

Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1

	Statement	5	4	3	2	1
8.1	Profitability in company over the last 7 years has been increasing steadily					
8.2	Return on investment in company over the last 7years has been growing steadily					
8.3	Liquidity in company over the last 7 years has been increasing steadily					

8.4	Asset turnover in company over the last 7 years has been increasing steadily due to good company performance					
8.5	Debt financing in my company over the last 7 years has been decreasing steadily					
8.6	Equity financing in my company over the last 7 years has been increasing steadily					
8.7	Earnings per share in my company over the last 7 years has been increasing steadily	5	4	3	2	1
8.8	Diversified Investments in my company have steadily increased over the last 7 years due to good performance					

8.9. Is there any other information you would like to add not mentioned in this questionnaire? (Specify)

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Thank you very much for taking your time to participate in this study

SECONDARY DATA (to be collected from audited financial statements)

SECTION VIII: COMPANY FINANCIAL PERFORMANCE

	Questions	2010	2011	2012	2013	2014
i.	Profit for the last 7 years (kshs Millions)					
ii.	Return on Asset					
iii.	Earnings Per Share					

Appendix 3: Sample size

Market Segment	Sample size(Manager)
Agriculture	
Sasini	6
Williamsons	6
Kakuzi	6
Limuru Tea Ltd	6
Automobiles	
Car & General	6
Sameer	6
Banking	
Cooperative Bank of Kenya	6
National Bank	6
Standard Chartered	6
NIC Bank	6
Housing Finance	6
Equity Bank	6
Kenya Commercial Bank	6
Commercial and Services	
Kenya Airways	6
Longhorn Kenya	6
Scan group	6
Nation Media	6
Uchumi Supermarkets	6
Express Kenya ltd	6
Construction and Allied	
Bamburi Cement Ltd.	

E.A Cables	6
E.A Portland Cement Co. Ltd.	6
Energy and Petroleum	
Kenya Power & Lighting	6
Kengen Co. Ltd.	6
Kenol Kobil Ltd.	6
Growth Enterprise	
Flame Tree Group Holding Ltd.	6
Insurance	
Jubilee Insurance	6
Kenya RE	6
Pan African Insurance	6
Investment	
Centum	6
Transcentury	6
Manufacturing	
Everready East Africa	6
Mumia Sugar	6
British America Tobacco	6
BOC Kenya Ltd.	6
Carbacid Investment Ltd.	6
Unga Group	6
Telecommunication	
Safaricom Ltd.	6
Total	228

Appendix 4: List of Companies Listed in NSE as at April 2015



FEATURES OF NSE EQUITY SECURITIES

SECURITIES	ISIN CODE	TRADING SYMBOL	TOTAL NUMBER OF ISSUED SHARES
AGRICULTURAL			
1 Eaagads Ltd	KE0000000208	EGAD	32,157,000
2 Kakuzi Ltd	KE0000000281	KUKZ	19,599,999
3 Kapchorua Tea Co. Ltd	KE0000000229	KAPC	3,912,000
4 The Limuru Tea Co. Ltd	KE0000000356	LIMT	1,200,000
5 Rea Vipingo Plantations Ltd	KE0000000422	REA.	60,000,000
6 Sasini Ltd	KE0000000430	SASN	228,055,500
7 Williamson Tea Kenya Ltd	KE0000000505	WTK	8,756,320
AUTOMOBILES & ACCESSORIES			
8 Car & General (K) Ltd	KE0000000109	C&G	40,103,308

9	Marshalls (E.A.) Ltd	KE0000000364	MASH	14,393,106
10	Sameer Africa Ltd	KE0000000232	FIRE	278,342,393

BANKING

11	Barclays Bank of Kenya Ltd	KE0000000067	BBK	5431536000
12	CFC Stanbic of Kenya Holdings Ltd	KE0000000091	CFC	395321638
13	Diamond Trust Bank Kenya Ltd	KE0000000158	DTK	242110105
14	Equity Bank Ltd	KE0000000554	EQTY	3702777020
15	Housing Finance Co.Kenya Ltd	KE0000000240	HFCK	235750000
16	I&M Holdings Ltd	KE0000000125	I&M	392362039
17	Kenya Commercial Bank Ltd	KE0000000315	KCB	2984227692
18	National Bank of Kenya Ltd	KE0000000398	NBK	280000000
19	NIC Bank Ltd	KE0000000406	NIC	597282563
20	Standard Chartered Bank Kenya Ltd	KE0000000448	SCBK	309159514
21	The Co-operative Bank of Kenya Ltd	KE1000001568	COOP	4889316295

COMMERCIAL AND SERVICES

22	Express Kenya Ltd	KE0000000224	XPRS	35,403,790
23	Hutchings Biemer Ltd	KE0000000257	HBER	360000
24	Kenya Airways Ltd	KE0000000307	KQ	1496469035

25	Longhorn Kenya Ltd	KE2000002275	LKL	58500000
26	Nation Media Group Ltd	KE0000000380	NMG	188542286
27	Scangroup Ltd	KE0000000562	SCAN	378865102
28	Standard Group Ltd	KE0000000455	SGL	81,731,808
29	TPS Eastern Africa Ltd	KE0000000539	TPSE	182,174,108
30	Uchumi Supermarket Ltd	KE0000000489	UCHM	265,424,636

CONSTRUCTION & ALLIED

31	ARM Cement Ltd	KE0000000034	ARM	495,275,000
32	Bamburi Cement Ltd	KE0000000059	BAMB	362,959,275
33	Crown Paints Kenya Ltd	KE0000000141	BERG	23,727,000
34	E.A.Cables Ltd	KE0000000174	CABL	253,125,000
35	E.A.Portland Cement Co. Ltd	KE0000000190	PORT	90,000,000

ENERGY & PETROLEUM

36	KenGen Co. Ltd	KE0000000547	KEGN	2,198,362,456
37	KenolKobil Ltd	KE0000000323	KENO	1,471,762,200
38	Kenya Power & Lighting Co Ltd	KE0000000349	KPLC	1,951,467,045
39	Total Kenya Ltd	KE0000000463	TOTL	175,028,706
40	Umeme Ltd	KE2000005815	UMME	1,623,878,005

INSURANCE			BRIT	
	British-American Investments Co.(Kenya) Ltd	KE2000002192		1,938,415,838
42	CIC Insurance Group Ltd	KE2000002317	CIC	2,625,538,528
41	43 Jubilee Holdings Ltd	KE0000000273	JUB	59,895,000
44	Kenya Re Insurance Corporation Ltd	KE0000000604	KNRE	699,949,068
45	Liberty Kenya Holdings Ltd	KE2000002168	CFCI	1,030,540,728
46	Pan Africa Insurance Holdings Ltd	KE0000000414	PAFR	96,000,000
INVESTMENT				
47	Centum Investment Co Ltd	KE0000000265	ICDC	665441775
48	Olympia Capital Holdings Ltd	KE0000000166	OCH	40000000
49	Trans-Century Ltd	KE2000002184	TCL	280,284,476
INVESTMENT SERVICES				
50	Nairobi Securities Exchange Ltd	KE3000009674	NSE	194,625,000
MANUFACTURING & ALLIED				
51	A. Baumann & Co Ltd	KE0000000018	BAUM	3,840,066
52	B.O.C Kenya Ltd	KE0000000042	BOC	19,525,446
53	British American Tobacco Kenya Ltd	KE0000000075	BAT	100,000,000
54	Carbacid Investments Ltd	KE0000000117	CARB	254,851,988

55	East African Breweries Ltd	KE0000000216	EABL	790,774,356
56	Eveready East Africa Ltd	KE0000000588	EVRD	210,000,000
57	Kenya Orchards Ltd	KE0000000331	ORCH	12,868,124
58	Mumias Sugar Co. Ltd	KE0000000372	MSC	1,530,000,000
59	Unga Group Ltd	KE0000000497	UNGA	75,708,873
TELECOMMUNICATION & TECHNOLOGY				
60	Safaricom Ltd	KE1000001402	SCOM	40,065,428,000
GROWTH ENTERPRISE MARKET SEGMENT (GEMS)				
61	Flame Tree Group Holdings Ltd	KE4000001323	FTGH	162,866,804
62	Home Afrika Ltd	KE2000007258	HAFR	405,255,320

Source:(www.nse.co.ke).Website - Nairobi securities exchange

APPENDIX 5: Factor Analysis and Reliability Results

1. Internal control environment

Component Matrix of internal control environment Matrix

	Component
Management has shown commitment to competence and ensured that personnel receive adequate training to perform their duties.	.730
There is clear assignment of responsibility and delegation of authority to deal with such matters as organizational goals and objectives, operating functions, and regulatory requirements?	.726
All employees have job responsibilities, including specific duties, reporting relationships clearly established and communicated.	.723
Employee job descriptions, including specific duties, reporting responsibilities, and constraints are clearly established and effectively communicated to employees?	.702
Management analyses the risks and potential benefits of a venture before making a decision	.701
All personnel, including key managers, possess adequate knowledge and experience to discharge their responsibilities.	.698
Management determines the level of knowledge and skills needed to perform a particular job and this information is used in the hiring process	.679

Management demonstrate the appropriate “tone at the top”, including explicit moral guidance about what is right and wrong and is this communicated in both words and deeds?	.674
The organization of the company is clearly defined in terms of lines of authority and responsibility	.663
Management and operating decisions are not dominated by a few individuals	.656
Dealings with employees, suppliers, citizens, bondholders, shareholders, and auditors are based on honesty and fairness?	.650
The organizational structure appropriate for the size and complexity of the entity	.638
There is adequate supervision and monitoring of decentralized operations	.629
Management has mechanisms to anticipate, identify and react to events or activities that affect achieving company objectives?	.613
Employee performance evaluation techniques are implemented to identify incompetent or ineffective employees	.585
The company adequately compensate employees in order to attract qualified individuals.	.550
The company has appropriate entity policies regarding such matters as acceptable business practices, conflicts of interest, and codes of conduct have been established and they adequately communicated	.452
Turnover of key personnel is relatively low	.464

Reliability Statistics of internal control environment

Reliability Statistics	
Cronbach's Alpha	N of Items
.909	18

2. Internal Audit Function

Component Matrix of Internal Audit

	Component
The internal auditor(s) demonstrate professionalism and an objective approach.	.848
The audit department provides management with assurance that there are no major weaknesses and/or major internal control weakness are reported.	.816
Internal audit findings are reported directly to top management and the audit and risk sub-committee of the board.	.773
The internal audit department reports functionally to the audit committee of the Board	.746
Recommendations of the internal audit unit are taken very seriously in the organization	.710
The internal audit unit in the company plays a major role in fraud detection and prevention	.706
A majority of the audit team members in the company are registered members of ICPAK or professional organizations internationally recognised.	.699
The internal audit department conducts its work independent of the management	.686

The audit is always completed on a timely basis.	.681
The company has a functional internal audit unit/department	.660
The internal audit unit in the company has developed an internal audit manual that guides audit operations such as planning, implementation, monitoring, and evaluation.	.653
The head of the Internal audit function is a member of the senior management team in the company and reports to the CEO	.518
The timing of the audit in this company is appropriate.	.493

Reliability Statistics of internal audit function

Reliability Statistics	
Cronbach's Alpha	N of Items
.898	13

3. Risk Management

Component Matrix of Risk management

Component

The company has a risk review process after implementation of the mitigation measures/control for identification of risks	.904
The company regularly updates the risk register	.900
The company has a monitoring system that identifies potential risks	.867
The company has a well-documented policy on risk management	.858
The company management effectively communicate risks to the employees and the stakeholders	.850
Recommendations by the Risk Management committee are reported directly to top management and the audit and risk sub-committee of the board	.846
The company management encourage reporting of events in order to identify the risks	.843
The management adequately evaluates and records the risk when making important decisions (launch of projects or new products, development of strategic plans, investment plans)	.833
Risks identified are reviewed and decisions taken on the same by a Risk Management committee	.832
Management uses instruments for risk transfer or sharing with other organizations (e.g insurance companies)	.806
The company has adequately implemented any inspection plans to reduce the inherent risks which are periodically revised.	.777
There is adequate capacity to perform risk assessment in my company	.745
There exists a Risk Management committee in the organization	.587

Reliability Statistics of Risk management

Reliability Statistics

Cronbach's Alpha	N of Items
.958	13

4.Internal control activity

Component Matrix of control activity

	Component
The company policies on information and communications provide well established techniques and mechanisms to address non-compliance in financial matters.	.890
The company has developed effective policies and procedures on information and communication	.797
The company has clear segregation of duties for the various financial functions?	.774
The company has well established information and communication channels	.710
The company utilises 'suggestion boxes' for obtaining information that is sensitive and confidential for the effective management of the organization	.693
Whistle blowing in the company has been and continues to be an effective way to obtain critical and sensitive information necessary for curbing cases of fraudulent activities	.680

Reliability Statistics of internal control activity

Cronbach's Alpha	N of Items
.835	6

5. Corporate governance

Component Matrix of corporate governance

	Component
The different members of the board in the company bring unique experiences and expertise to the management of the company	.867

The company has well established corporate governance policies and procedures and practises that guide the affairs of the company	.864
All members of the board of directors belong to various specialised sub-committee of the board	.818
The company has a well-developed policy on conflict of interest and procedures on how to handle any conflict of interest cases that may arise from time to time	.809
Succession planning and remuneration of the board of directors are issues of significant interest and these are the responsibility of the respective sub-committees	.773
The company has a well-established and effective Board	.723
Recruitment and appointment of Board members is approved by the Shareholders during the Annual General Meetings	.661

Reliability Statistics of corporate governance

Reliability Statistics	
Cronbach's Alpha	N of Items
.893	7

6. Government policy

Component Matrix of government policy

	Component
Changes in government regulations are implemented in the company without delay	.802
There exists a legal unit within the company that updates management on any changes in the regulatory environment	.654
The company operations comply with the all set government policies	.652
The company frequently review its policies to reflect changes in government changes	.651
Financial performance of the company is affected by changes in government rules and regulation	.602
Recommendations of the legal unit in the company are reported directly to the audit and risk sub-committee of the board	.576
The company is greatly affected by government action on market prices e.g. minimum wage bill	.400

Reliability Statistics of government policy

Reliability Statistics

Cronbach's Alpha	N of Items
.721	7

7. Financial performance

Component Matrix of Financial performance

	Component
Liquidity in company over the last 7 years has been increasing steadily	.915
Return on investment in company over the last 7 years has been growing steadily	.899
Profitability in company over the last 7 years has been increasing steadily	.860
Earnings per share in my company over the last 7 years has been increasing steadily	.849
Asset turnover in company over the last 7 years has been increasing steadily due to good company performance	.836
Diversified Investments in my company have steadily increased over the last 7 years due to good performance	.832
Equity financing in my company over the last 7 years has been increasing steadily	.761
Debt financing in my company over the last 7 years has been decreasing steadily	.531

	Component
Liquidity in company over the last 7 years has been increasing steadily	.915
Return on investment in company over the last 7 years has been growing steadily	.899
Profitability in company over the last 7 years has been increasing steadily	.860
Earnings per share in my company over the last 7 years has been increasing steadily	.849
Asset turnover in company over the last 7 years has been increasing steadily due to good company performance	.836
Diversified Investments in my company have steadily increased over the last 7 years due to good performance	.832
Equity financing in my company over the last 7 years has been increasing steadily	.761
Debt financing in my company over the last 7 years has been decreasing steadily	.531

Reliability Statistics of Financial performance

Reliability Statistics

Cronbach's Alpha	N of Items
.923	8
