DECLARATION

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

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Date

D61/8255/2006

This Research Project has been submitted for examination with my approval as the University supervisor

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ACKNOWLEDGEMENT

Foremost, I would like to thank the almighty God for the gift of life and blessings, providence of good health and the privilege to undertake this project.

I thank my parents, brothers and sisters who encouraged and supported me both emotionally and financially throughout the entire process.

I thank my supervisor Mr. H.Ondigo for his time, patience and guidance he gave me towards completion of this work. I also appreciate the work done by my lecturers in MBA program and the entire university fraternity.

Thanks to the MBA colleagues with whom I have shared, discussed and researched together during my course and friends for their encouragement. I also wish to thank the respondents who took part in this research.

To my wife Cynthia and daughter Faith, I say thank you so much for being there for me and for your understanding.
DEDICATION

This work is dedicated to my father Kamau Kamugah and my mother Faith Wanjiku for your toil, and determination by giving me the opportunity and the support in my academic pursuit. To my brothers and sisters, with your support and understanding I have managed to get this far.
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LIST OF ABBREVIATIONS

ERM - Enterprise Risk Management
COSO - Committee of Sponsoring Organisation of the Tradeway Commission
ISA - International Standard on Auditing
CPI - Corruption Perception Index
TI - Transparency International
SEC - Security and Exchange Commission
PCAOB - Public Company Accounting Oversight Board
PFMRP - Public Financial Management Reform Programme
US - United States
SOA - Sarbanes-Oxley Act of 2002
AICPA - American Institute of Certified Public Accountants
ICPAK - Institute of Public Accountant of Kenya
CMA - Capital Market Authority
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ABSTRACT

Internal control serves many important purposes. There are increasing calls for better internal control systems and report cards on them. Internal control is looked upon more and more as a solution to a variety of potential problems that touches on the effectiveness and efficiency of an organization.

The financial reporting and corporate governance arenas have been in an uproar. Some external actions through the Nairobi Stock Exchange as well as professional association e.g. ICPAK and regulatory bodies e.g. Capital Market Authority (CMA) and Central bank of Kenya (CBK) are attempting to regain trust and stability in the financial markets. One of the strongest means to monitor financial reporting, ethics, and governance is implementing a strong internal control system. Internal control can ensure the reliability of financial reporting and compliance with laws and regulations. However, an internal control system, no matter how well conceived and operated, can provide only reasonable—not absolute—assurance to management and the board regarding achievement of an entity's objectives.

This research is a study of internal control system in the public and private sector. The main objective of the study is to find out the practice in regard to design and implementation of internal control systems in the private and the public sector and whether there is any difference in effectiveness and efficiency as the result. The research focused on the key components of internal control systems namely control environment, risk assessment, control procedures, information and communication and finally monitoring. The study explored the designs of the respective sectors to find out if their similarities and difference.

Data of this study was collected by questionnaires and focused group discussion. The data collected was analyzed by use of descriptive and inferential statistics. Frequency tables and graphs were used to present the results of this study.

The results of this study showed that the private sector compared to the public sector has a strong internal control system than the public sector in all the component of internal control. However the public sector and private sector do not have a significant difference in monitoring and control activities and the public sector even has stronger elements of preventive controls.

Thus Public sector should enhance the design of internal control in control environment, risk assessment, monitoring and information control components while the private sector should enhance design of control activities.
CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Senior executives have long sought ways to better control the enterprises they run. Internal controls are put in place to keep the company on course toward profitability goals and achievement of its mission, and to minimize surprises along the way. They enable management to deal with rapidly changing economic and competitive environments, shifting customer demands and priorities, and restructuring for future growth. Internal controls promote efficiency, reduce risk of asset loss, and help ensure the reliability of financial statements and compliance with laws and regulations.

Because internal control serves many important purposes, there are increasing calls for better internal control systems and report cards on them. Internal control is looked upon more and more as a solution to a variety of potential problems. The concepts of corporate governance also heavily rely on the necessity of internal controls. Internal controls help ensure that processes operate as designed and that risk responses (risk treatments) in risk management are carried out. In addition, there needs to be in place circumstances ensuring that the aforementioned procedures was performed as intended: right attitudes, integrity and competence, and monitoring by managers.

According to Transparency International’s 2009 Corruption Perceptions Index (CPI) report and published by Eastafrican Standard on 19th November 2009, Kenya leads corruption perception index. According to the report, Kenya is ranked among nations seen as most corrupt in a new global public sector report. The country is placed 146th out of 180 countries studied. The CPI report is a measure of domestic and public sector corruption. Kenya recorded a CPI score of 2.2 indicating high perception of bribery. Countries are measured on a scale from 0 (perceived to be highly corrupt) to 10 (seen to have low levels of corruption).

The country ties with crisis-laden Zimbabwe and performs poorer than her East African neighbours. Tanzania is ranked 126 with a CPI score of 2.6 while Uganda is at position 130 scoring 2.5. The CPI measures the perceived levels of public sector corruption in a given country and is a composite index, drawing on 13 different expert and business studies. A total of seven reports were used to assess Kenya’s performance. The 2009 edition scored 180 countries, the same number as previous year's CPI.
In the report released and published in the Eastafrican, the vast majority of countries in the 2009 index scored below five. New Zealand, Denmark, Singapore, Sweden and Switzerland are perceived to have low levels of corruption with a CPI index of more than 9.0. According to the study, as countries climb out of the financial crisis on the back of massive stimuli packages, there is need to guard against channeling of funds for personal gain. "At a time when massive stimulus packages, fast-track disbursements of public funds and attempts to secure peace are being implemented around the world, it is essential to identify where corruption blocks good governance and accountability in order to break its corrosive cycle," said Huguette Labelle, Chair of Transparency International (TI).

The concepts of corporate governance also heavily rely on the necessity of internal controls. Internal controls help ensure that processes operate as designed and that risk responses (risk treatments) in risk management are carried out. In addition, there needs to be in place circumstances ensuring that the aforementioned procedures were performed as intended: right attitudes, integrity and competence, and monitoring by managers (Hyden, 1992 and 2000, Bratton & Walle, 1992).

Traditionally, auditors have examined internal control as part of the audit in order to determine the reliability of the information processing related to transactions and to assess control risk. Consequently, auditors tended to focus on controls of transactions from authorization through to summarization and posting to journals and ledgers. Auditors need to assess control risk for financial risk assertions, but their perspective on internal control has also broadened dramatically. Now, controls related to decision making, process efficiency, and compliance are considered relevant to the audit process, as they affect the reliability of the controls over financial report ((Knechel/Salterio/Ballou 2007 pg 227).

In most cases, management has an incentive to minimize its business risks whenever possible. If management is aware of the risks it faces, a well run company will have polices, systems, and procedures in place for coping with those risks. Lack of managerial awareness of a risk is also relevant to the auditor and may represent a significant deficiency in the control environment. Management responses that are effective at reducing risks can also have an impact of reducing risk for the auditor. Consequently auditors need to develop an extensive understanding of how management uses internal control to respond to important risks as this knowledge sets the context for subsequent audit testing ((Knechel/Salterio/Ballou 2007 pg 227).

Internal control can help an entity achieve its performance and profitability targets, and prevent loss of sources. It can help ensure reliable financial reporting. And it can help ensure that the enterprise
complies with laws and regulations, avoiding damage to its reputation and other consequences. In sum, it can help an entity get to where it wants to go, and avoid pitfalls and surprises along the way (Hyden, 1992 and 2000, Bratton & Walle, 1992). Unfortunately, some people have greater, and unrealistic, expectations. They look for absolutes, believing that Internal control can ensure an entity's success that is; it will ensure achievement of basic business objectives or will, at the least, ensure survival( Knechel/Salterio/Ballou)

Even effective internal control can only help an entity achieve these objectives. It can provide management information about the entity's progress, or lack of it, toward their achievement. But internal control cannot change an inherently poor manager into a good one. And, shifts in government policy or programs, competitors' actions or economic conditions can be beyond management's control. Internal control cannot ensure success, or even survival.

Another belief is that internal control can ensure the reliability of financial reporting and compliance with laws and regulations. This belief is also unwarranted. An internal control system, no matter how well conceived and operated, can provide only reasonable—not absolute—assurance to management and the board regarding achievement of an entity's objectives. The likelihood of achievement is affected by limitations inherent in all internal control systems. These include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the collusion of two or more people, and management has the ability to override the system. Another limiting factor is that the design of an internal control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Thus, while internal control can help an entity achieve its objectives, it is not a panacea (Hyden, 1992 and 2000, Bratton & Walle, 1992).

1.1.1 Public Sector Companies

Public sector is the part of the economy concerned with providing basic government services (Nigro 1984). The public sector includes such services as the police, military, public roads, public transit, primary education and healthcare for the poor (David 2002). The public sector provides services that "on-payer cannot be excluded from (such as street lighting), services which benefit all of society other than just the individual who uses the service (such as public education), and services that encourage equal opportunity (Jan-Erik , 2002).
The Public Sector, sometimes referred to as the state sector is a part of the state that deals with either the production, delivery and allocation of goods and services by and for the Government or its citizens, whether national, regional or Local /Municipal (Nigro 1984.)

The organization of the public sector (public ownership) can take several forms, including: First Direct administration funded through taxation; the delivering organization generally has no specific requirement to meet commercial success criteria, and production decisions are determined by government. Secondly, Publicly owned corporations (in some contexts, especially manufacturing, "state-owned enterprises"), which differ from direct administration in that they have greater commercial freedoms and are expected to operate according to commercial criteria, and production decisions are not generally taken by government (although goals may be set for them by government). Nigro, 1984. Partial outsourcing (of the scale many businesses do, for example, for IT services), is considered a public sector model. (Carnevale, Organizational Development in the Public Sector (2002),

A borderline form is complete outsourcing or contracting out, with a privately owned corporation delivering the entire service on behalf of government. This may be considered a mixture of private sector operations with public ownership of assets, although in some forms the private sector's control and/or risk is so great that the service may no longer be considered part of the public sector. (Jan-Erik, The Public Sector: Concepts, Models and Approaches (1995), Sage Publications)

From the late 1980s, the debate on good governance and its requirements has provided an impetus for new approaches to public sector management reforms. Some of the changes that have taken place have been aimed at tackling some of the worst forms of governance abuses and failures in Africa: the personalized nature of rule in which key political actors exercise unlimited power; misuse of State resources and institutionalized corruption; opaque government; the breakdown of the public realm; the lack of delegation of power and the withdrawal of the masses from governance (World Bank).

Good public management and administration, with emphasis on accountability and responsiveness to customer needs, has been seen as an aspect of good governance by donor agencies supporting reforms in developing countries. To the World Bank, good governance consists of a public service that is efficient, a judicial system that is reliable, and an administration that is accountable to the public. The World Bank elaborates on four elements of good governance (World Bank, 1989, 1992):
1.1.2 Private Sector Companies

Private sector is that part of the economy which is both run for private profit and is not controlled by the state. A variety of legal structures exist for private sector business organizations, depending on the jurisdiction in which they have their legal domicile. Individuals can conduct business without necessarily being part of any organization Nigro, Decision Making in the Public Sector (1984), Marcel DekkerInc

The main types of businesses in the private sector are; sole trader; partnership, either limited or unlimited liability; private Limited Company or limited liability, with private shares; public Limited Company - shares are open to the public. Two examples are :. Carnevale, Organizational Development in the Public Sector (2002), Westview Pr):Franchise - business owner pays a corporation to use their name, receives spec for the business; Workers cooperative - all workers have equal pay, and make joint business decisions

1.1.3 Differences between Private and Public Sector

While Public Sector is involved in enactment of Public policies, has Complex system of organization with various (and to some extent conflicting) tasks, has Multiple performance indicators and targets and there are efforts to emulate private sector management practice, managers are typically under high levels of political scrutiny. Successful managers are also likely to receive lower material benefits than comparable private sector managers, End-users are the general public, traditionally seen as citizens, though recently there have been efforts to introduce market-type principles and move to see them as customers or consumers . (Jan-Erik, The Public Sector: Concepts, Models and Approaches (1995), Sage Publications)

On the other hand, private sector pursues profit, stability or of growth of revenues. The firms are of many sizes, with options for new entrants, performance measured on return on investment some managers have considerable autonomy, others constrained by shareholders, corporate governance, or financial stringency. Successful managers liable to be rewarded with substantial material benefits and promotion, and Markets may be consumer or industrial ones, and firms vary in the intimacy of their links with the end-users of their products, but typically market feedback provides the verdict on innovation^ David G. Carnevale, Organizational Development in the Public Sector (2002).
1.2 Research Problem

The aftershocks from the Enron debacle in US and Goldenberg in Kenya continue to reverberate. Depressed public confidence in Kenya corporate governance and financial reporting quality continues to be a critical public policy challenge. Significant institutional changes are being implemented to improve financial reporting and corporate governance. (Public Financial Management Reform Programme (PFMRP)).

The U.S. Congress passed the Sarbanes-Oxley Act of 2002 (SOA) that empowered the U.S. Securities and Exchange Commission (SEC) to establish and oversee a new Public Company Accounting Oversight Board. The Board's responsibilities include establishing or adopting auditing standards, evaluating the practice quality of registered public accounting firms, and monitoring compliance with Audit Committee's stated responsibilities.

Institutionalized financial mis-management are eating the very moral fiber of our country, Kenya. Financial scandals are so institutionalized that the World Bank estimates that it is a crisis beyond a crisis... It's the greatest single threat to development and the fight against poverty anywhere in Africa. It is not an imminent threat, it is real and existing* (World Bank 2010). This has led to widespread poverty, gross failure of public institutions and ultimately — the lack of confidence in Government and social chaos World Bank 2010. The present coalition government of Kenya has yet to come up with a plan to control, or abate the problem.

According to Gatuawa (2008) in his study of Financial Crisis in Kenya one of the contributors to collapse of Kenyan financial banks in the 1990s was lack of good internal controls. Similar studies have been done on corporate governance in the private sector for example Ndungu (2003) and Mutisya (2006) investigated the relationship between corporate governance & firm performance whereby boards' size and number of meeting and top management and directors' shareholding mainly affected performance. Also Muriithi (2004) conducted a similar study of internal control in the public sector and the findings were similar. This study, therefore bring the private and public sector on a single platform and seek answer the question which of the two sectors have efficient and effective internal control system design.
1.3 Objective of the study

To compare the design, implementation, efficiency and effectiveness of the internal control systems in the public sector companies and listed private companies.

1.4 Importance of the study

This study is of importance to Chief Executive Officers, Finance Director, Finance Managers and policy makers in private and public companies as the study bring the two sectors in a single platform and they can learn on areas of strength from the other sector. Academicians will also find this study resourceful as it studies the wider concept of internal control system and its theory into actual practice in a selected area of interest. Regulators like Efficient Monitoring Unit and Capital Market Authority may use this study to recommend areas of improvement in their respective authorities.
2.1 Introduction

This chapter analyses literature related to internal control and the implications it has in organizations' financial management systems. It also brings out what other writers and authors have written on the subject internal control. This chapter is divided into three sections that include analysis of previous studies and a critical review analysis of literature reviewed and identification of the identified gaps and summary.

2.2 COSO Internal Control Integrated Framework

ISO 400 defines internal control system as the whole systems of control financial or otherwise established by management in order to; Carry out the business of an entity in an orderly and efficient manner, ensure adherence to management policies, safeguard the company assets, to secure as far as possible the completeness and accuracy of records.

Under the COSO (Committee of Sponsoring Organizations) Internal Control-Integrated Framework, internal control is broadly defined 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: a) Effectiveness and efficiency of operations; b) Reliability of financial reporting; and c) Compliance with laws and regulations.

COSO defines 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 effective and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations.

The definition embodies four key concepts. First, internal control is a process (not a single event) integrated within (not added onto) another process: the process the management uses to plan, to execute transactions and events and to monitor results. Second is accomplished by people at every level of organization, including the board of director's, management and employees. As a result, effectiveness of an internal control system can be diminished by the inherent limitation of people. For example even the most logically design and carefully implemented controls may be undermined by
employees' errors, mistakes in judgment, and by misunderstanding. Third, rather than an end itself, internal control is a mean to achieve an entity objectives. Lastly internal controls can be expected to provide reasonable but absolute assurance that objectives was accomplished since the benefits expected from some controls (for example, reduced risk of employee petty theft, may not be worth the cost of implementation. (Knechel/Salterio/Ballou pg 228).

Thus internal control has the following five components; Control Environment-sets the tone for the organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control; Risk Assessment-the identification and analysis of relevant risks to the achievement of objectives, forming a basis for how the risks should be managed; Information and Communication-systems or processes that support the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities; Control Activities-the policies and procedures that help ensure management directives are carried out.; Monitoring-processes used to assess the quality of internal control performance over time(Knechel/Salterio/Ballou pg 229).

The SEC's ( PCAOB's) definition of internal control over financial reporting is a: process designed by, or under the supervision of, the principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principle and include those policies and procedures that; Pertain to maintainace of record that is reasonable detail accurately and fairly reflect the transactions and dispositions of assets; Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and the receipt and expenditure...are being made only in accordance with authorizations of management and directors and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the registrant's assets that could have a material effect on the financial statements.

Discrete control procedures or controls are defined by the SEC as: "...a specific set of policies, procedures, and activities designed to meet an objective. A control may exist within a designated function or activity in a process. A control's impact...may be entity-wide or specific to an account

 lance, class of transactions or application. Controls have unique characteristics - for example, they Can k: automated or manual; reconciliations; segregation of duties; review and approval ^torizations; safeguarding and accountability of assets; preventing or detecting error or fraud.
Controls within a process may consist of financial reporting controls and operational controls (that is, those designed to achieve operational objectives).

Under the COSO Framework, objective setting is considered a precondition to internal control. By setting objectives, management can then identify risks to the achievement of those objectives. To address these risks, management of organizations may implement specific internal controls. The effectiveness of internal control can then be measured by how well the objectives are achieved and how effectively the risks are addressed.

More generally, setting objectives, budgets, plans and other expectations establish criteria for control. Control itself exists to keep performance or a state of affairs within what is expected, allowed or accepted. Control built within a process is internal in nature. It takes place with a combination of interrelated components - such as social environment effecting behavior of employees, information necessary in control, and policies and procedures. Internal control structure is a plan determining how internal control consists of these elements. (Knechel/Salterio/Ballou).

Figure 1 below shows the conceptual framework components of dependent and independent variables. The effectiveness of internal control is the dependent variable. This is achieved by the presence and proper functioning of all the predefined independent variables in relation to each category of the Organization's objectives. Proper functioning of independent variables provides reasonable assurance of proper functioning of dependent variable. Then the organization realizes preset objectives of efficient and effective operations, generation of accurate, reliable and informative financial reports that comply with relevant legal and regulatory requirements. The objectives are overlapping. This means efficient and effective operations produces accurate, reliable and informative financial reports that comply with applicable laws and regulations.
The objectives, depicting overlapping interrelationships are numbered 1/2 and 3 in Figure 1 (1) include efficiency and effectiveness of operations (2) accuracy and reliability of informative financial reporting and (3) compliance with applicable laws, regulations, policies and procedures. The independent variables determine the effectiveness of an internal control system. The presence and proper functioning of all the components of the independent variables ensures effectiveness of internal control system. This achieves each category of objectives 1, 2 and 3 in Figure 1. The independent Enables comprise major and minor components. Individual minor components jointly feed into and form a specific major independent variable. The measurement of minor independent variables locates the weaknesses existing in the major independent variables. The major independent variables include: Control environment, risk assessment, Control activities, Information and communication and monitoring. The minor independent variables include: authorization and approval procedures, human Source policies and practices, assignment of authority and responsibility, ineligible expenditure, countability obligations, segregation of duties, controls over access to resources, presence of control editors, verification, reconciliation, review of operating performance, supervision. A relationship exists between the outcomes of the dependent and the independent variables. All Impendent variables are relevant to each category of objectives. Internal control processes (minor dependent variables) affects the effectiveness of internal control systems, which is subject to the
organization's determined objectives. All the independent variables are interdependent but each has an impact on the effectiveness of internal control systems.

Different approaches to the evaluation of effectiveness of internal controls are available. The Study uses the model in Figure 1. In this regard, controls evaluation is a step toward achieving the Study's objectives once the research questions are answered. The research questions are formulated to identify the existence or otherwise of each variable of internal control.

2.3 Balancing Risk and Control

Risk is the probability that an event or action will adversely affect the organization. The primary categories of risk are errors, omissions, delay and fraud. In order to achieve goals and objectives, management needs to effectively balance risks and controls. Therefore, control procedures need to be developed so that they decrease risk to a level where management can accept the exposure to that risk. By performing this balancing act "reasonable assurance" can be attained.

2.4 Fraud and Internal Control

There are generally three requirements for fraud to occur - motivation, opportunity and personal characteristics. Motivation is usually situational pressures in the form of a need for money, personal satisfaction, or to alleviate a fear of failure. Opportunity is access to a situation where fraud can be perpetrated, such as weaknesses in internal controls, necessities of an operating environment, management styles and corporate culture. Personal characteristics include a willingness to commit fraud. Personal integrity and moral standards need to be "flexible" enough to justify the fraud, perhaps out of a need to feed their children or pay for a family illness. It is difficult to have an effect on an individual's motivation for fraud. Personal characteristics can sometimes be changed through training and awareness programs. Opportunity is the easiest and most effective requirement to address to reduce the probability of fraud. By developing effective systems of internal control, you can remove opportunities to commit fraud (Beasley, Carcello and Hermanson 1999).
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2.5 Roles and responsibilities in internal control

According to the COSO Framework, everyone in an organization has responsibility for internal control to some extent. Virtually all employees produce information used in the internal control system or take other actions needed to effect control. Also, all personnel should be responsible for communicating upward problems in operations, noncompliance with the code of conduct, or other policy violations or illegal actions. Each major entity in corporate governance has a particular role to play.

Management: The Chief Executive Officer (the top manager) of the organization has overall responsibility for designing and implementing effective internal control. More than any other individual, the chief executive sets the "tone at the top" that affects integrity and ethics and other factors of a positive control environment. In a large company, the chief executive fulfills this duty by providing leadership and direction to senior managers and reviewing the way they're controlling the business. Senior managers, in turn, assign responsibility for establishment of more specific internal control policies and procedures to personnel responsible for the unit's functions. In a smaller entity, the influence of the chief executive, often an owner-manager is usually more direct. In any event, in a cascading responsibility, a manager is effectively a chief executive of his or her sphere of responsibility. Of particular significance are financial officers and their staffs, whose control activities cut across, as well as up and down, the operating and other units of an enterprise. (Knechel/Salterio/Ballou)

Board of Directors: Management is accountable to the board of directors, which provides governance, guidance and oversight. Effective board members are objective, capable and inquisitive. They also have knowledge of the entity's activities and environment, and commit the time necessary to fulfill their board responsibilities. Management may be in a position to override controls and ignore or stifle communications from subordinates, enabling a dishonest management which intentionally misrepresents results to cover its tracks. A strong, active board, particularly when coupled with effective upward communications channels and capable financial, legal and internal audit functions, is often best able to identify and correct such a problem (Beasley; Carcello, and Hermanson. 1999.)

Auditors: The internal auditors and external auditors of the organization also measure the effectiveness of internal control through their efforts. They assess whether the controls are properly signed, implemented and working effectively, and make recommendations on how to improve
internal control. They may also review Information technology controls, which relate to the IT systems of the organization. There are laws and regulations on internal control related to financial reporting in a number of jurisdictions.

2.6 Internal Control Process

Internal control consists of five interrelated components as follows: Control (or Operating) environment; Risk assessment; Control activities; Information and communication; Monitoring. All five internal control components must be present to conclude that internal control is effective (Manase 2008).

2.7 Control Environment

The control environment is the control consciousness of an organization; it is the atmosphere in which people conduct their activities and carry out their control responsibilities. An effective control environment is an environment where competent people understand their responsibilities, the limits to their authority, and are knowledgeable, mindful, and committed to doing what is right and doing it the right way. They are committed to following an organization's policies and procedures and its ethical and behavioral standards. The control environment encompasses technical competence and ethical commitment; it is an intangible factor that is essential to effective internal control. (COSO Enterprise Risk Management Integrated Framework for the management ERM, designed in 9/2004).

A governing board and management enhance an organization's control environment when they establish and effectively communicate written policies and procedures, a code of ethics, and standards of conduct. Moreover, a governing board and management enhance the control environment when they behave in an ethical manner - creating a positive "tone at the top" — and when they require that same standard of conduct from everyone in the organization.

2.8 Risk Assessment

Risk assessment is the identification and analysis of risks associated with the achievement of operations, financial reporting, and compliance goals and objectives. This, in turn, forms a basis for determining how those risks should be managed. Under COSO Enterprise Risk Management-Integrated Framework (2004) "risk assessment" is considered to consist of four elements: objective setting, event identification, risk assessment and risk response
2.8.1 Determine Goals and Objectives
The central theme of internal control is (Knechel/Salterio/Ballou 2007) to identify risks to the achievement of an Organization's objectives and (2) to do what is necessary to manage those risks. Thus, setting goals and objectives is a precondition to internal controls. At the highest levels, goals and objectives should be presented in a strategic plan that includes a mission statement and broadly defined strategic initiatives. At the department level, goals and objectives should support the organization's strategic plan.

A clear set of goals and objectives is fundamental to the success of a department. Specifically, a department or work unit should have (1) a mission statement, (2) written goals and objectives for the department as a whole, and (3) written goals and objectives for each significant activity in the department (see diagram below). Furthermore, goals and objectives should be expressed in terms that allow meaningful performance measurements (Farrell, 2004).

2.8.2 Identify Risks after Determining Goals
To properly manage their operations, managers need to determine the level of operations, financial and compliance risk they are willing to assume. Risk assessment is one of management's responsibilities and enables management to act proactively in reducing unwanted surprises. Failure to consciously manage these risks can result in a lack of confidence that operation, financial and compliance goals were achieved (Amour 2000).

2.8.3 Risk Analysis
After risks have been identified, a risk analysis should be performed to prioritize those risks. (Farrell, J.2004)

2.9 Control Activities
Control activities are actions, supported by policies and procedures that, when carried out properly a timely manner, manage or reduce risks (Knechel/Salterio/Ballou ). In the same way that gers are primarily responsible for identifying the financial and compliance risks for their Perations, they also have line responsibility for designing, implementing and monitoring their eternal control system.
Preventive and Detective Controls—Controls can be either preventive or detective. The intent of these controls is different. Preventive controls attempt to deter or prevent undesirable events from occurring. They are proactive controls that help to prevent a loss. Examples of preventive controls are separation of duties, proper authorization, adequate documentation, and physical control over assets (Manase 2007).

Detective controls, on the other hand, attempt to detect undesirable acts. They provide evidence that a loss has occurred but do not prevent a loss from occurring. Examples of detective controls are reviews, analyses, variance analyses, reconciliations, physical inventories, and audits. Both types of controls are essential to an effective internal control system. From a quality standpoint, preventive controls are essential because they are proactive and emphasize quality. However, detective controls play a critical role providing evidence that the preventive controls are functioning and preventing losses (Simons, R. 1992.).

Control activities include approvals, authorizations, verifications, reconciliations, reviews of performance, security of assets, segregation of duties, and controls over information systems.

2.10 Control Activities - Information Systems

Organization use a variety of information systems: mainframe computers, local area and wide area networks of minicomputers and personal computers, single-user workstations and personal computers, telephone systems, video conference systems, etc. The need for internal control over these systems depends on the criticality and confidentiality of the information and the complexity of the applications that reside on the systems. There are basically two categories of controls over information systems (Spiral, and M. Page. 2003):

2.11 General Controls

General controls apply to entire information systems and to all the applications that reside on the systems. General Controls Include: Access Security, Data & Program Security, Physical Security; Software Development & Program Change Controls; Data Center Operations and Disaster Recovery (Hermanson, 2003).
General controls consist of practices designed to maintain the integrity and availability of information processing functions, networks, and associated application systems. These controls apply to business application processing in computer centers by ensuring complete and accurate processing. These controls ensure that correct data files are processed, processing diagnostics and errors are noted and resolved, applications and functions are processed according to established schedules, file backups are taken at appropriate intervals, recovery procedures for processing failures are established, software development and change control procedures are consistently applied, and actions of computer operators and system administrators are reviewed. (Rishel and Ivancevich 2003)

Additionally, these controls ensure that physical security and environmental measures are taken to reduce the risk of sabotage, vandalism and destruction of networks and computer processing centers. Finally, these controls ensure the adoption of disaster planning to guide the successful recovery and continuity of networks and computer processing in the event of a disaster. (Rishel, 2003).

2.12 Application Controls

Applications are the computer programs and processes, including manual processes that enable us to conduct essential activities; buying products, paying people, accounting for research costs, and forecasting and monitoring budgets. (Rishel and Ivancevich 2003) Application controls apply to computer application systems and include input controls (for example edit checks), processing controls (for example, record counts), and output controls (for example error listings), they are specific to individual applications.

Application Controls Include: Programmed Procedures within Application Software; Input Controls (Data Entry); Authorization; Validation; Error Notification and Correction; Processing Controls; Output Controls

They consist of the mechanisms in place over each separate computer system that ensures that authorized data is completely and accurately processed. They are designed to prevent, detect, and correct errors and irregularities as transactions flow through the business system. They ensure that the transactions and programs are secured, the systems can resume processing after some business interruption, all transactions are corrected and accounted for when errors occur, and the system presses data in an efficient manner.
2.13 Information and Communication

Information and communication are essential to effecting control; information about an organization's plans, control environment, risks, control activities, and performance must be communicated up, down, and across an organization (Spiral and Page. 2003). Reliable and relevant information from both internal and external sources must be identified, captured, processed, and communicated to the people who need it—in a form and timeframe that is useful. Information systems produce reports, containing operational, financial, and compliance-related information that makes it possible to run and control an organization.

Information and communication systems can be formal or informal (Farrell, J.2004). Formal information and communication systems—which range from sophisticated computer technology to simple staff meetings—should provide input and feedback data relative to operations, financial reporting, and compliance objectives; such systems are vital to an organization's success. Just the same, informal conversations with faculty, students, customers, suppliers, regulators, and employees often provide some of the most critical information needed to identify risks and opportunities.

When assessing internal control over a significant activity (or process), the key questions to ask about information and communication are as follows:

Information and communication are simple concepts. Nevertheless, communicating with people and getting information to people in a form and timeframe that is useful to them is a constant challenge. When completing a Business Controls Worksheet for a significant activity (or process) in a department, evaluate the quality of related information and communication systems (Knechel/Salterio/Ballou pg 232).

2.14 Monitoring

Monitoring is the assessment of internal control performance over time ((Knechel/Salterio/Ballou pg 232); it is accomplished by ongoing monitoring activities and by separate evaluations of internal control such as self-assessments, peer reviews, and internal audits. The purpose of monitoring is to determine whether internal control is adequately designed, properly executed, and effective. Internal control is adequately designed and properly executed if all five internal control components (Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring) are present and functioning as designed. Internal control is effective if management and interested
stakeholders have reasonable assurance that: They understand the extent to which operations objectives are being achieved; Published financial statements are being prepared reliably; Applicable laws and regulations are being compiled.

While internal control is a process, its effectiveness is an assessment of the condition of the process at one or more points in time. Just as control activities help to ensure that actions to manage risks are carried out, monitoring helps to ensure that control activities and other planned actions to effect internal control are carried out properly and in a timely manner and that the end result is effective internal control (Armour M. 2000. Internal Control). Ongoing monitoring activities include various management and supervisory activities that evaluate and improve the design, execution, and effectiveness of internal control. Separate evaluations, on the other hand, such as self-assessments and internal audits, are periodic evaluations of internal control components resulting in a formal report on internal control.

Department employees perform self-assessments; internal auditors who provide an independent appraisal of internal control perform internal audits((Knechel/Salterio/Ballou pg 233).).

Management's role in the internal control system is critical to its effectiveness. Managers, like auditors, don't have to look at every single piece of information to determine that the controls are functioning and should focus their monitoring activities in high-risk areas. The use of spot checks of transactions or basic sampling techniques can provide a reasonable level of confidence that the controls are functioning as intended.

Over the past decade, organizations have invested heavily in improving the quality of their internal control systems. They have made the investment for a number of reasons, notably: good internal control is good business — it helps organizations ensure that operating, financial and compliance objectives are met, and many organizations are required to report on the quality of internal control over financial reporting, compelling them to develop specific support for their certifications and assertions. (COSO's 2006 Internal Control over Financial Reporting — Guidance for Smaller Public Companies (COSO's 2006 Guidance).

Internal control is designed to assist organizations in achieving their objectives. The five components of COSO's Internal Control — Integrated Framework (the COSO Framework) works in tandem to mitigate the risks of an organization's failure to achieve those objectives.
The COSO Board recognizes that management's assessment of internal control often has been a time-consuming task that involves a significant amount of annual management and/or internal audit testing. Effective monitoring can help streamline the assessment process, but many organizations do not fully understand this important component of internal control. As a result, they underutilize it in supporting their assessments of internal control.

COSO's 2008 *Guidance on Monitoring Internal Control Systems* (COSO's Monitoring Guidance) was developed to clarify the monitoring component of internal control. It does not replace the guidance first issued in the COSO Framework or in COSO's 2006 *Internal Control over Financial Reporting — Guidance for Smaller Public Companies* (COSO's 2006 Guidance). Rather, it expounds on the basic principles contained in both documents, guiding organizations in implementing effective and efficient monitoring.

### 2.14.1 How Monitoring Benefit the Governance Process

Unmonitored controls tend to deteriorate over time. Monitoring, as defined in the COSO Framework, is implemented to help ensure "that internal control continues to operate effectively." When monitoring is designed and implemented appropriately, organizations benefit because they are more likely to: Identify and correct internal control problems on a timely basis, Produce more accurate and reliable information for use in decision-making, Prepare accurate and timely financial statements, and Be in a position to provide periodic certifications or assertions on the effectiveness of internal control. (COSO's 2008 Guidance on Monitoring Internal Control Systems (COSO's Monitoring Guidance))

Over time effective monitoring can lead to organizational efficiencies and reduced costs associated with public reporting on internal control because problems are identified and addressed in a proactive, rather than reactive, manner.

### 2.14.2 Scope of Monitoring Processes

Organizations may select from a wide variety of monitoring procedures, including but not limited to:

- Periodic evaluation and testing of controls by internal audit,
- Continuous monitoring programs built into information systems,
- Analysis of, and appropriate follow-up on, operating reports or metrics that might identify anomalies indicative of a control failure,
- Supervisory reviews of controls, such as reconciliation reviews as a normal part of processing,
- Self-assessments by boards and management regarding the tone they set in the organization and the effectiveness of their oversight functions,
committee inquiries of internal and external auditors, and Quality assurance reviews of the internal audit department.

Continued advancements in technology and management techniques ensure that internal control and related monitoring processes will change over time. However, the fundamental concepts of monitoring, as outlined in COSO's Monitoring Guidance, are designed to stand the test of time. (COSO Framework Volume I)

Management can begin the monitoring process by encouraging the people with control system responsibility to read COSO's Monitoring Guidance and consider how best to implement it or whether it has already been incorporated into certain areas. Further, personnel with appropriate skills, authority and resources should be charged by management with addressing these four fundamental questions: Have we identified the meaningful risks to our objectives, for example, the risks related to producing accurate, timely and complete financial statements? Which controls are "key controls" that would support a conclusion regarding the effectiveness of internal control in those risk areas? What information was persuasive in telling us whether the controls are continuing to operate effectively? Are we presently performing effective monitoring that is not well utilized in the evaluation of internal control, resulting in unnecessary and costly further testing? (COSO Monitoring Guidance Volume III)

Management and the board of directors should understand the concepts of effective monitoring and how it serves their respective interests. As the board learns more about monitoring, it will develop the knowledge necessary to ask management in relation to any area of meaningful risk, "How do you know the internal control system is working?"

COSO's Monitoring Guidance is designed to help organizations answer these and other questions within the context of their own unique circumstances — circumstances that will change over time. As they progress in achieving effectiveness in monitoring, organizations likely will have the opportunity to further improve the process through the use of such tools as continuous monitoring software and exception reports tailored to their processes. (COSO Monitoring Guidance Volume III)

The guidance also covers other concepts that are important to effective and efficient monitoring, deluding: The characteristics associated with the objectivity of the evaluator; The period of time and the circumstances by which an organization can rely on adequately designed indirect information when used in combination with ongoing or periodic persuasive direct information — to conclude that Vernal control remains effective; Determining the sufficiency and suitability of information used in
monitoring to ensure that the results can adequately support conclusions about internal control; and Ways in which the organization can make monitoring more efficient without reducing its effectiveness. (COSCTs Monitoring Guidance Volume III)

COSO's Monitoring Guidance encompasses three volumes. Volume I presents the fundamental principles of effective monitoring and develops the linkage to the COSO Framework. Volume II conveys in greater detail the principles outlined in Volume I and provides guidance to those responsible for implementing effective monitoring. Volume III contains examples of effective monitoring.

Many organizations, through applying the concepts set forth in the guidance, should improve the effectiveness and efficiency of their internal control systems. To that end, COSO's Monitoring Guidance is designed to help organizations (1) identify effective monitoring where it already exists and use it to the maximum benefit, and (2) identify less effective or efficient monitoring, leading to improvements. In both instances, the internal control system may be improved, increasing the likelihood that organizational objectives were achieved.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This section gives the methodology used in this study. It include research approach, population of the study, sampling method, type of data collected, method of collection and data analysis techniques applied during research.

3.2 Research Design

The study adopted descriptive survey design. A descriptive study describes data and characteristics about the population or phenomenon being studied. The description is used for frequencies, averages, mode and other statistical calculations. The researcher adopted this design as respondents were expected to respond to questions that relate to what they normally do in everyday situation;

3.3 Population

The population of this study was all private companies incorporated in Kenya under cap 486 of the laws of Kenya and listed in Nairobi Stock Exchange (Nairobi Stock Exchange) see appendix ii and all public institutions established under the relevant act of parliament. (Office of the Government Spokesman)-appendix iii

3.4 Sampling Size

The sampling frame comprised of five private companies listed at Nairobi Stock Exchange and 5 Parastatals created under relevant act of parliament. Due to homogeneity of institutions in public sector and private sector organization. These sample was considered representative of the population.

A respondent of 3 Management staff, 3 supervisory staff, and 3 technical staff 2 stakeholders was picked from each institution identified for study to form the basis of findings in this research. Well distributed respondents of professions in each sector were selected. This formed a sufficient Sampling frame of 33 respondents in the public and 55 respondents in the private sector in total.
Table 3.2: Respondents from each organization sampled

<table>
<thead>
<tr>
<th>Categories</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Supervisory</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Technical</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Stakeholder</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

3.5 Data Validity and Reliability

To ensure accuracy of the sample, data was collected from the following three different Clusters; supervisory staff, technical staff and stakeholders. Elements in these clusters were picked at random in order to eliminate bias in any cluster. The questionnaire was also be pre tested to pilot test the getting feedback from the respondents regarding how easy or hard the measure was and information about how the testing environment affected their response.

3.6 Data collection Method

The information needed for this Internal Control Study was obtained through primary data. Qualitative and quantitative research was conducted using in-depth interviews (IDIs), focus group discussions (FGDs) and semi-structured questionnaires which target public sector and private sector personnel.

While this internal control study is qualitative in nature, the data collection approaches was varied. Given the objectives of this study both qualitative and quantitative approaches was required.

The qualitative approaches included focus groups and in depth interviews. These helped to clarify the Process of internal control and finalize the semi-structured questionnaires used to get target respondents' ratings on adequacy and practices of internal control at the respective sectors.

Quantitative approach used pre-coded and structured questionnaires. This helped to obtain the aggregate of responses by different respondents. Secondary information was collected by analysing manual of selected organizations and other documented procedures.
3.6.1 Qualitative Approach

In-depth interviews and focus groups was used to gather data needed from the target respondents regarding key issues that respondents think contribute to weakness of internal control. A discussion guide was used to guide the discussion path. The moderator/interviewer focused on obtaining tangible and intangible information about respective internal control process.

In-depth interviews (IDIs) were used to get qualitative information from target respondents on a one-on-one basis. This involved the use of unstructured interviews aimed at obtaining unrestricted responses on their perception presence or absence of internal control.

Most importantly, IDIs was conducted to a few senior sector managers to uncover pertinent issues from them. Their views and concerns formed vital inputs to the study findings.

The data was analyzed to answer issues raised from the research objectives. This phase gave the aggregate of different response categories as well breakdown by each component of internal control.

3.7 Data Analysis

The Distribution summary of the frequency of individual values in the questionnaire was analyzed. Every value of a variable and the number of persons who had each value was shown. Central Tendency measures of mean, median and mode was used to determine the central tendency of the distribution of the values.

The data collected for this study was analyzed using descriptive statistics. Data on the likert scales was analyzed using frequency tables, mean, standard deviation and coefficient of variation.

The quantitative phase aimed at quantifying the qualitative data on perception about assessing the adequacy of all aspects of internal control. Quantitative data was gathered through face-to-face interviews using pre-coded and semi-structured questionnaires with some open-ended questions to allow for probing. In addition, bi-polar Likert scales of magnitude one to five (1-5) was included in questionnaires. The objective here was to quantify the responses and confirm the extent to which respondents held various perceptions to establish customer satisfaction levels.
This helped to answer the question of what proportion or percentage of respondents hold a certain view. Further, it helped calculate internal control adequacy index which becomes the basis of comparison in future evaluations.
CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction
This section gives the summary of statistics and data analysis, graphical presentation of results of each component of internal control, interpretation of data, results and discussions arising out of this study.

4.2 Data Analysis

A. Control Environment

Table 4.1: Comparison of Internal Control Environment in the Public sector and private sector

<table>
<thead>
<tr>
<th>COMPONENTS OF CONTROL</th>
<th>PUBLIC SECTOR</th>
<th>PRIVATE SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>S.D</td>
</tr>
<tr>
<td>1. Employee are technically qualified</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2. Employees have high ethical and moral standards*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3. Written policies and procedures, codes of ethics and standards are well communicated</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. Board of Management behave in an ethical manner</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5. Integrity tests are conducted on employees</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td><strong>1.8</strong></td>
<td><strong>1.15</strong></td>
</tr>
</tbody>
</table>

Source: Research Data

The private sector is overall stronger than the public sector in this component. In every element of this component the design of internal control system in the private sector is superior to the public sector. However, there was notable variation in responses in the public sector as depicted by the respective standard deviations of 1.15 and 0.52. Out of the focused group discussion it emerged out that some public sector institution dwell on some elements of internal control more than the others thus explaining the dispersion of the responses.
Source Research Data

The public sector control environment has strong component qualification of personnel and ethical conduct of board management. On the other hand the private sector has strong controls in personnel qualification, written policies and procedures, codes of ethics and standards and ethical conduct of board management. Both Private Sector and Public sector lacks integrity tests on their employees.
B. Risk Environment

Table 4.2: Comparison of Risk Environment in the Public sector and private sector

<table>
<thead>
<tr>
<th>COMPONENTS OF RISK ENVIRONMENT</th>
<th>PUBLIC SECTOR</th>
<th>PRIVATE SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>S.D</td>
</tr>
<tr>
<td>1. Organisation Goals/Mission and Vision are properly identified</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>2. Risks to the achievement of organization Goals/Mission and Vision are properly identified</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>3. Risk analysis is done to priorities risks</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>4. There is in place actions, supported by policies &amp; procedures that when carried out properly and in timely manner manage or reduce risks</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>5. Preventive controls-attempt to deter undesirable event e.g. separation of duties &amp; authorization, recording</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>6. Detective controls- attempts to detect undesirable action like reconciliation, variance analysis and audit is done</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2.18</strong></td>
<td><strong>1.17</strong></td>
</tr>
</tbody>
</table>

Source: Research Data

The private sector is overall stronger than the public sector in this component. Only in preventive control element the public sector is stronger that the private sector. This can be explained by bureaucratic systems as explained by the stakeholders as many institutions in this sector tend concentrate on preventive controls. There was notable variation in responses in the public sector as depicted by the respective standard deviations of 1.17 and 0.39. Out of focused group discussion it emerged out that some public sector institution dwell on some elements of internal control more than the others thus explaining the dispersion of the responses and in this component it emerged out that the public sector concentrate on preventive control.
Source Research Data

The result of this study showed that risk management is the biggest challenge in the public sector out of all components of internal control, but the sector performs relatively well compared to the private sector in preventive and detective controls. However, out of the focus group discussion, it emerged that this is compromised by collusion among the employees. This has been perpetuated by lengthy disciplinary procedure in the public sector, unlike in the private sector where disciplinary cases are instant.

Private sector scored strongly in all component of risk management thus explaining low occurrence of cases of corruption in this sector.
C. CONTROL ACTIVITIES

Table 4.3: Comparison of Control Activities in the Public Sector and Private Sector

<table>
<thead>
<tr>
<th>COMPONENTS OF CONTROL ACTIVITIES</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>S.D</td>
</tr>
<tr>
<td>1. Preventive controls-attempt to deter undesirable event e.g. separation of duties &amp; authorization, recording</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2. Detective controls-attempts to detect undesirable action like reconciliation, variance analysis and audit is done</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>3. They consist of the mechanisms in place over each separate computer system that ensures that authorized data is completely and accurately processed</td>
<td>3.05</td>
<td></td>
</tr>
<tr>
<td>4. Information systems are controlled depending on criticality and confidentiality of the information</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>5. There is a practice designed to maintain the integrity and availability of information processing functions</td>
<td>3.75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.76</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source Research Data

Only in this sector the public sector internal control system is stronger than in the private sector as explained by respective mean score of 3.76 and 3.1. However there is no significant difference with the private sector as shown by the respective sector standard deviation and coefficient of variation.
Figure 4: Public and Private sector Information Communication Mean Scores Comparison Chart

Source Research Data

The study showed that this is the only component of internal control that the public sector scored strongly compared to private sector. However, the staff in the public sector has circumvented presence of strong internal control activities by colluding among themselves and suppliers therefore rendering the presence of strong control activities ineffective.
## D. INFORMATION AND COMMUNICATION

### Table 4.4: Comparison of Information and Communication in the Public Sector and Private Sector

<table>
<thead>
<tr>
<th>COMPONENTS OF INFORMATION AND COMMUNICATION</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>S.D</td>
</tr>
<tr>
<td>1. Information about an organization's plans, control environment, risks, control activities, and performance is communicated up, down, and across an organization</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>2. Reliable and relevant information from both internal and external sources is identified, captured, processed, and communicated to the people who need it—in a form and timeframe that is useful</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>3. Information systems produce reports, containing operational, financial, and compliance-related information that makes it possible to run and control an organization.</td>
<td>1.55</td>
<td></td>
</tr>
<tr>
<td>4. Staff hold departmental meeting frequently</td>
<td>2.05</td>
<td></td>
</tr>
</tbody>
</table>

| Total | 1.4 | 0.42 | 0.28 | 2.3 | 1.31 | 0.56 |

**Source Research Data**

Both public and private sector information communication design are weak. Out of the focused group interview it emerged that information dissemination is preferential and through grapevines.
Source Research Data

The study showed that both public and private sector performs poorly in this component of Information Communication. Out of the focus group discussion staff in both sectos expressed that information release is uncoordinated and many times the staff get information concerning the organization through the media.
E. MONITORING

Table 4.5: Comparison of Monitoring Component in the Public Sector and Private Sector

<table>
<thead>
<tr>
<th>COMPONENTS OF MONITORING</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score</td>
<td>S.D</td>
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<td>1. Control activities &amp; other planned actions to manage risks are carried out properly and in timely manner</td>
<td>1.7</td>
<td></td>
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<tr>
<td>2. Management &amp; supervisors evaluate to improve the design execution and effective of internal control</td>
<td>2.05</td>
<td></td>
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<tr>
<td>3. Separate evaluations such as self-assessment &amp; internal audit are conducted</td>
<td>3.15</td>
<td></td>
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<tr>
<td>4. Managers use spot check to determine if controls are working</td>
<td>2.15</td>
<td></td>
</tr>
<tr>
<td>5. The five components of internal control are present and working in tandem</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>6. There is continuous advancement of technology and management techniques to ensure that internal control &amp; related process change with time</td>
<td>1.7</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>2.0</strong></td>
<td>0.70</td>
</tr>
</tbody>
</table>

Source: Research Data

There are no significant differences in both sectors in these components in spite of private sector having better monitoring implementation. The standard deviation and coefficient of variation in both sectors indicate that both sectors give almost the same emphasis of the elements of internal control in their respective sectors sector.
Source Research Data

The public sector and private sector have almost the same level of monitoring in their organizations, however there is a significant in the presence of all the five components of internal control. Use of spot checks in both sector is almost similar with private and public sector having a mean score of 3.55 and 2.9 respectively.
4.3 Discussion of Finding

The study shows that there significant differences in the design and implementation of internal control systems in the private listed organizations and the public sector. Out of the focused group discussion it emerged that each sector has some areas the organization give more emphasis than other. This is due to the need of complying externally and the need to pursue good practices of corporate governance, While the public sector internal control system emphasize on compliance with external environment, private listed companies on the other hand mostly emphasize on good principles of corporate governance.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter include summary of the research finding, conclusion of the study, recommendations arising of out of this research, areas for further research in future and limitations of the study.

5.2 Summary of the study

The objective of this study was to compare the design of the internal control systems in the private and public sector. A comparison of each component of internal control system in the public and private sector shows that on average the public sector system of internal control is weak than the private sector in all components. However there is no significant difference in control activity component and monitoring component as both sector have strong controls.

The findings of this study have important implications for internal and external auditors and financial managers in Kenya. First, the absence of the strong internal control in the public sector means public sector is high risk areas to the auditors. The finance managers in this sector have to design robust internal control systems to minimize incidence on fraud. Secondly, the private sector should improve on information communication as the controls in this component are weak.

The study showed that it is the only control environment component that the public sector scored strongly compared to private sector. However this has been circumvented collusion among staff in the public sector. On Information communication both public and private sector performs poorly in this component. Lastly the public sector and private sector have almost the same level of monitoring in the organizations.
5.3 Conclusion

The objective of this study is to compare the strength and weakness of internal control systems in the public and private sector.

Arising from the findings above Auditors and managers in the private and public sector learn the weaknesses in the design of internal control systems in the respective sector. Since the private sector compared to the public sector has a strong internal control in all the component of internal control, the public sector should learn from this to implement a better internal control system so that it may benefit from efficient and effective utilization of resources, safeguarding of assets and efficient organizations.

5.4 Recommendations

Internal control rather than an end itself is a mean to achieve entity objectives. This study recommends that managers in the public sector and private sector should learn from each other on how to design strong internal control. The public sector internal control system is weaker than in the private sector in the control environment, risk assessment and information control component. On the other hand public sector has strong controls in control activities. Thus Public sector should enhance the design of internal control in control environment, risk assessment, monitoring and information control components while the private sector should enhance control activities design. Auditors should consider weak internal control systems in the public sector while planning audit

5.5 Areas for Further Study

In order to ensure the efficiency and effectiveness of activities, reliability of information and compliance with applicable laws, firms demand adequate internal control. However, several frameworks (COSO, CoCo etc.) assume that the need for internal control varies according to a firm's characteristics. This concurs with contingency theory, which claims that each organization has to
choose the most suitable control system by taking into account contingency characteristics. A
examine which contingency characteristics firms choose to adapt their internal control structure
whether it results in a more favorable assessment of the effectiveness of control by the manager
should be conducted.

5.6 Limitation of the study

This study standardized general questions enough to be minimally appropriate for all respondents
possibly missing the unique of organization operating environment which may demand a checklist of evaluating the design of such internal control system design. Also the initial study (the tools and administration of the tools) remain unchanged throughout the data collection.
REFERENCES

Spectrum Books LTD. Ibadan. PP 34-37


Beasley,M.S., J.V Carcello,and D.R. Hermanson 1999.


COBIT Internal Control Framework (2007), Available


COSO Internal Control - Integrated Framework (1992), Available:

COSO Project to Focus on Monitoring of Internal Control, Available


avid G. Carnevale (2002). Organizational Development in the Public Sector, Westview Pr.


Hermanson (2003), D.R. Hermanson, "Does corporate governance really matter?"


Liquidity for Firms Listed in the Nairobi Stock Exchange: *University of Nairobi. Unpublished Master Dissertation*


World Bank Institute Data Bank Governance 2010


Robert, R. M Auditing, oeller,Herbert N. Witt, Brink Wiley. 5th edition (January 5, 1999) Modern internal auditing


SEC (2003), Exchange Rule 10A-3: Standards related to listed company
SEC Interpretive Guidance. Statement on Auditing Standards No. 106


W. Robert Knechel (University Florida)/Steven E Salterio(Queen's University/ Brian Ballou (Miam University) (2007). Auditing Assurance and Risk

This questionnaire is meant to help in collection of information on internal control system assessment in your organization. You are kindly required to fill in the appropriate responses at the best of your knowledge and sincerity. Information given will be handled with a lot of confidentiality.

Tick only one response.

1. Sector
   a. Public
   b. Private

2. Role in the Organization
   a. Management
   b. Supervisory
   c. Technician
   d. Stakeholder

3. For how long have you been with the institution?
   - Less than 5 years
   - 6-10 years
   - 11-15 years
   - over 15 years

A. Control Environment
   1. How often does the Board of Management/Management periodically review internal controls put in place?
      a. Annually.
      b. Biannually
2. The following are key factors of control environment. Please indicate whether you agree or disagree where 5 is strongly agree and 1 is strongly disagree

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<tr>
<td>1. Employee are technically qualified</td>
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<td>2. Employees have high ethical and moral standards</td>
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<td>3. Written policies and procedures, codes of ethics and standards are well communicated</td>
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<td>4. Board of Management behave in an ethical manner</td>
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How would you rate the extent of employee compliance with the control factors above?

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<tr>
<td>a. Highly Compliant</td>
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<td>b. Compliant</td>
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<td>c. Average</td>
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<td>d. Less Compliant</td>
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<td>e. Don't Comply</td>
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4. The various organisations department has well-written departmental policies and procedures manuals which addresses its significant activities and unique issues

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<tr>
<td>a. Strongly agree</td>
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<td>b. Strongly dis-agree</td>
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<td>c. Neither agree not disagree</td>
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</table>
5. What would you suggest in relation to strengthen internal control systems in your organization

B. Risk Environment.

1. Does your organization prioritize financial risks to manage?

   YES
   NO
   Explain

2. Does internal control system help identify All risks associated with financial fraud.

   YES
   NO
   Explain

5. how would you rate the effectiveness of the internal control system in avoiding Financial Frauds/ Please indicate whether you agree or disagree where 5 is strongly agree and 1 is strongly disagree

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<tr>
<td>1. Organisation Goals/Mission and Vision are properly identified</td>
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<td>2. Risks to the achievement of organisation Goals/Mission and Vision are properly identified</td>
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3. Risk analysis is done to prioritise risks

4. There is in place actions, supported by policies & procedures that when carried out properly and in timely manner manage or reduce risks

5. Preventive controls - attempt to deter undesirable event e.g. separation of duties & authorization, recording

6. Detective controls - attempts to detect undesirable action like reconciliation, variance analysis and audit is done

4. What would you suggest on risk environment in relation to the internal control systems in your organization?

ACCOUNTING INFORMATION COMMUNICATION
6. How would you rate the effectiveness of information and communication system in avoiding Financial Frauds? Please indicate whether you agree or disagree where 5 is strongly agree and 1 is strongly disagree

1.

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<tr>
<td>1. Information about an organization's plans, control environment, risks, control activities, and performance is communicated up, down, and across an organization</td>
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<td>2. Reliable and relevant information from both internal and external sources is identified, captured, processed, and communicated to the people who need it—in a form and timeframe that is useful</td>
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<td>3. Information systems produce reports, containing operational, financial, and compliance-related information that</td>
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makes it possible to run and control an organization.

4. Staff hold departmental meeting frequently
   a. Not Swift

2. What would you suggest concerning the accounting information to departments in your organization?

D. Monitoring

1. How would you rate the efficiency of monitoring system in your organization. Please indicate whether you agree or disagree where 5 is strongly agree and 1 is strongly disagree

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6. There is continuous advancement of technology and management techniques to ensure that internal control & related process change with time

2. What would you suggest should be done to improve monitoring in relation to internal control systems in your organization?

## E. CONTROL ACTIVITIES

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<tbody>
<tr>
<td>1. Preventive controls-attempt to deter undesirable event e.g separation of duties &amp; authorization, recording</td>
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<tr>
<td>2. Detective controls-attempts to detect undesirable action like reconciliation, variance analysis and audit is done</td>
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<td>3. They consist of the mechanisms in place over each separate computer system that ensures that authorized data is completely and accurately processed</td>
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<td>4. Information systems are controlled depending on criticality and confidentiality of the information</td>
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<td>5. The is a practice designed to maintain the integrity and availability of information processing functions</td>
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Appendix 11: Listed Companies.

Source: Nairobi Stock comprehensive list of all listed companies at the Nairobi Stock Exchange their addresses (postal and physical), contacts (telephone and e-mail) and a link to the companies website.

Agriculture

AGRICULTURAL

1. Eaagads Ltd Ord 1.25

2. Kapchorua Tea Co. Ltd Ord Ord 5.00

3. Kakuzi Ord.5.00

4. Limuru Tea Co. Ltd Ord 20.00

5. Rea Vipingo Plantations Ltd Ord 5.00

6. Sasini Ltd Ord 1.00

7. Williamson Tea Kenya Ltd Ord 5.00

8. Express Ltd Ord 5.00

9. Kenya Airways Ltd Ord 5.00

10. Nation Media Group Ord. 2.50

11. Standard Group Ltd Ord 5.00

12. TPS Eastern Africa (Serena) Ltd Ord 1.00
13. Scangroup Ltd Ord 1.00

14. Uchumi Supermarket Ltd Ord 5.00

15. Hutchings Biemer Ltd Ord 5.00

16. AccessKenya Group Ltd Ord. 1.00

17. Safaricom Ltd Ord 0.05

AUTOMOBILES AND ACCESSORIES

18. Car and General (K) Ltd Ord 5.00

19. CMC Holdings Ltd Ord 0.50

20. Sameer Africa Ltd Ord 5.00

21. Marshalls (E.A,) Ltd Ord 5.00

BANKING

22. Barclays Bank Ltd Ord 2.00

23. CFC Stanbic Holdings Ltd ord.5.00

24. Diamond Trust Bank Kenya Ltd Ord 4.00

25. Housing Finance Co Ltd Ord 5.00

26. Kenya Commercial Bank Ltd Ord 1.00
27. National Bank of Kenya Ltd Ord 5.00

28. NIC Bank Ltd Ord 5.00

29. Standard Chartered Bank Ltd Ord 5.00

30. Equity Bank Ltd Ord 0.50

31. The Co-operative Bank of Kenya Ltd Ord 1.00

INSURANCE

32. Jubilee Holdings Ltd Ord 5.00

33. Pan Africa Insurance Holdings Ltd Ord 5.00

34. Kenya Re-Insurance Corporation Ltd Ord 2.50

35. CFC Insurance Holdings

36. British-American Investments Company (Kenya) Ltd Ord 0.10

INVESTMENT

37. City Trust Ltd Ord 5.00

38. Olympia Capital Holdings Ltd Ord 5.00

39. Centum Investment Co Ltd Ord 0.50

40. Trans-Century Ltd
MANUFACTURING AND ALLIED

41. B.O.C Kenya Ltd Ord 5.00

42. British American Tobacco Kenya Ltd Ord 10.00

43. Carbacid Investments Ltd Ord 5.00

44. East African Breweries Ltd Ord 2.00

45. Mumias Sugar Co. Ltd Ord 2.00

46. Unga Group Ltd Ord 5.00

47. Eveready East Africa Ltd Ord 1.00

48. Kenya Orchards Ltd Ord 5.00

49. A.Baumann CO Ltd Ord 5.00

CONSTRUCTION AND ALLIED

50. Athi River Mining Ord 5.00


52. Bamburi Cement Ltd Ord 5.00

53. Crown Berger Ltd Ord 5.00

54. E.A.Cables Ltd Ord 0.50
55. E.A.Portland Cement Ltd Ord 5.00

ENERGY AND PETROLEUM

56. KenolKobil Ltd Ord 0.05

57. Total Kenya Ltd Ord 5.00

58. KenGen Ltd Ord. 2.50

59. Kenya Power & Lighting Co Ltd

Source: Nairobi Stock Exchange 14/03/2011
Appendix III - List of State Corporations

I. Agricultural Development Corporation
3. Agricultural Finance Corporation
5. Agro-Chemical & Food Company Ltd
7. Athi Water Services Board
9. Bomas of Kenya Ltd

II. Capital Markets Authority
13. Catchment Area Advisory Committee
15. Catering Tourism and Training Development Levy Trustees
17. Central Water Services Board
19. Chemilil Sugar Company Limited
21. Coast Development Authority
23. Coast Water Services Board
25. Coffee Board Of Kenya
27. Coffee Research Foundation
29. Commission for Higher Education
31. Communication Commission of Kenya
33. Consolidated Bank of Kenya
35. Cooperative College of Kenya
37. Council for Legal Education
39. Deposit Protection Fund Board
43. Egerton University
45. Ewaso Ng'iro South Development Authority
47. Export Processing Zone Authority
49. Export Promotion Council
51. Gilgil Telecommunications industries
53. Higher Education Loans Board
55. Horticultural Crops Development Authority
57. Horticulture Crops Development Authority
59. Industrial and Commercial Development Corporation
61. Industrial Development Bank
63. Investment Promotion Centre
65. Jomo Kenyatta University of Agriculture and Technology
67. KASNEB
69. Kenya Agricultural Research Institute
71. Kenya Airports Authority
73. Kenya Anti-Corruption Commission
75. Kenya Broadcasting Corporation
77. Kenya Bureau of Standards
79. Kenya Bureau of Standards (KEBS)
81. Kenya Civil Aviation Authority
83. Kenya College of Communication & Technology
85. Kenya College of Communications Technology
87. Kenya Dairy Board
89. Kenya Electricity Generating Company
91. Kenya Ferry Services Limited
93. Kenya Forestry Research Institute
95. Kenya Industrial Estates
97. Kenya Industrial Property Institute
99. Kenya Industrial Research & Development Institute
101. Kenya Institute Of Administration
103. Kenya Institute of Public Policy Research and Analysis
105. Kenya Literature Bureau
107. Kenya Marine & Fisheries Research Institute
109. Kenya Maritime Authority
111. Kenya Meat Commission
113. Kenya National Assurance Company
115. Kenya National Examination Council
117. Kenya National Library Service
119. Kenya National Shipping Line
121. Kenya National Trading Corporation Limited
123. Kenya Ordinance Factories Corporation
125. Kenya Pipeline Company Ltd
127. Kenya Plant Health Inspectorate Services
129. Kenya Ports Authority
131. Kenya Post Office Savings Bank
133. Kenya Railways Corporation
135. Kenya Re-insurance Corporation
137. Kenya Revenue Authority
139. Kenya Roads Board
141. Kenya Safari Lodges & Hotels
143. Kenya Seed Company Ltd
145. Kenya Sisal Board
147. Kenya Sugar Board
149. Kenya Sugar Research Foundation
151. Kenya Tourist Board
153. Kenya Tourist Development Corporation
155. Kenya Utalii College
157. Kenya Water Institute
159. Kenya Wildlife Service
161. Kenya Wine Agencies Limited
163. Kenyatta International Conference Centre
165. Kenyatta University
167. Kerio Valley Development Authority
169. Lake Basin Development Authority
171. Lake Victoria South Water Service Board
173. Lake Victoria South Water Service Board
175. Local Authority Provident Fund
177. Maseno University
179. Moi University
181. National AIDS Control Council
183. National Bank of Kenya
185. National Cereals and Produce Board
189. National Environmental Management Authority
191. National Hospital Insurance Fund
193. National Housing Corporation
195. National Irrigation Board
197. National Museums of Kenya
199. National Oil Corporation of Kenya Ltd
201. National Social Security Fund (NSSF)
203. National Water Conservation and Pipeline Corporation
205. National Co-ordinating Agency for Population and Development
207. New K.C.C
209. NGO’s Co-ordination Bureau
211. Numerical Machining Complex
213. Numerical Machining Complex
215. Nyayo Tea Zones Development Corporation
217. Nzoia Sugar Company
219. Pest Control Products Board
221. Postal Corporation of Kenya
223. Prethrum Board of Kenya
225. Retirement Benefits Authority
227. Rift Valley Water Services Board
229. School Equipment Production Unit
231. South Nyanza Sugar Company
233. Sports Stadia Management Board
235. Tana and Athi Rivers Development Authority
237. Tea Board Of Kenya
| 239. Tea Research Foundation Of Kenya |
| 241. Teachers Service Commission |
| 243. Telkom (K) Ltd |
| 245. University of Nairobi |
| 247. University of Nairobi Enterprises & Services Ltd |
| 249. Water Resources Management Authority |
| 251. Water Services Regulatory Board |
| 253. Western University College of Science and Technology |

**Source:** Office of the Government Spokesman 28/03/2011