

**ROLE OF INTERNAL CONTROL SYSTEMS ON THE SECURITY OF STATE
CORPORATIONSASSETS IN KENYA**

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DECLARATION

I declare that this proposal is my original work and has not been previously published or submitted elsewhere for the award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ACKNOWLEDGEMENT WITH GRATITUDE

I cannot take credit for what God has chosen to accomplish through me and KCA University; only God deserves the glory, and I can never thank Him enough for the wonderful things He has done.

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Whatever else, Lord, you're about to do,

You have not finished with me – yet.

DEDICATION

I dedicate this project work to my mother, Nayionke Saire, my source of encouragement and wisdom. My mother is the pillar behind ALL that I have been in life. She ensured that I enrolled in a primary school when this was considered a luxury and preserve of the children of the wealthy. Without hesitation she took up my role as a herds boy to help me start a journey she never dreamt of living it herself. I owe her my education and I'm indebted to God who has kept her alive to see the culmination of her effort through the completion of this MBA project work.

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List of Abbreviations and Acronyms

CRM-Credit Risk Management

ERM- Enterprise risk Management

GFC- Global Financial Crisis

HDI-Human Development Index

SPSS- Statistical Package for the Social Science

TI - Transparency International

List of Appendices

Appendix 1 - State Corporations Targeted for Sampling

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Operational Definition of Terms

Risk: Risk has been defined as “uncertain events that may happen in future that could influence the attainment of the corporation’s strategic, operational and financial objectives” (IFA, 1999)

Internal Control System can be defined as “Covering the strategy of an entity and all the related procedures and actions implemented within a corporate to secure its resources, check the accuracy and reliability of its accounting information prorate working efficacy and adherence to prescribed managerial policies.” (Byaruhanga, 2015)

Security is the degree of resistance to, or protection from, harm. It applies to any vulnerable or valuables, such as a person, dwelling, community, item, nation, or organization

State Corporations are government owned entities established under the State Corporations Act, Chapter 446 of the Laws of Kenya

Communication is the exchange of useful information between and among people and organizations to support decisions and coordinate activities (Aftab, Cheung, Kim, Thakkar, & Yeddanapudi, 1997)

Developing State is a nation or a sovereign state with a less developed industrial base and a low Human Development Index (HDI) relative to other countries (Sheffrin& Steven M. 2003)

Assets are items of economic value owned by individuals or corporations that are movable or immovable including cash, receivables, office equipment, real estates, motor vehicles and other properties (Goodman J. 2003)

Abstract

Internal controls assist organizations in many significant purposes. There are increasing calls for better internal control systems and report cards on them. Internal control is an answer to a variety of likely and actual issues touching on the efficiency and effectiveness in an organization. The study sought to establish the role of internal control systems on the security of State Corporation's assets in Kenya. The objective of this study will be to investigate the effect of internal control system activities on the security of State Corporations' assets in Kenya. In practice, internal control and security of assets are basic assurance systems to maintain the efficiency and to protect organizations from failure. This study will be carried out through a descriptive research methodology. The stress will be on describing and not on pronouncing judgment or explanation. The economic aspect will be practical with the descriptive approach given that the characteristics being studied are partly qualitative in nature. The target population of the study will be 110 State Corporations in Kenya. The researcher will use stratified random sampling to conduct a survey of 38 (sample size) State Corporations of the target population. Primary data will be collected by use of a structured questionnaire. The questionnaire will be delivered to the respondents in person and collected after two days. The questionnaires obtained from the respondents will first be checked for completeness, consistency and accuracy. They will then be coded and entered into a computer data base. Data will be analyzed using descriptive statistics, correlation analysis and multiple regression analysis. The results of the analyzed data will be presented using tables and/or pie charts. A conclusion will then be arrived at and recommendations made on the role of internal controls in place and the security of State Corporation assets at the time of this study.

Key words: Internal controls, Control Environment, risk assessment, Control activities, Information Communication, Monitoring, security of assets.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Economic activities almost always have to deal with risks. Some of the enterprise risks, both internal and external, comprise enormous losses that could threaten an entity's going concern and continuity, if the proper management is not put in place. In current day environment, managing risk has become a critical matter. This study looks at risks faced by State Corporation's assets security in Kenya and the role of internal control systems in safeguarding and or mitigating these risks. Stakeholders and other participants in public and private sector organizations are normally concerned with the protection of their properties and resources. Stockholders appoint representatives and assign them rights to manage and act in the principal's best interest. This separation of proprietorship from control point toward a loss of concrete control by stakeholders and taxpayers over operational and strategic decisions hence concerns over the protection of their investment. This means that it is imperative and critical that proper governance, ethics and accountability in policy, procedures and practices be adopted to achieve organizational goal of safeguarding public assets.

The control procedures instituted to detect, gauge and manage enterprise risk related to assets within the entity whether private or public (COSO, 2011) are referred to as internal controls. The Association of Certified Fraud Examiners 2002 report to the USA Federal Government Occupational Fraud and Abuse reveals that 46.2% of frauds occur because of lack of adequate control measures to secure organizational assets. In Kenya, The Treasury News of 2010 revealed that between 25 and 30 percent of the state annual budget or about Kshs 270 billion is lost through fraud and embezzlement. These losses of assets were largely attributed to the growth of

costs of public procurement caused by weak or nonexistent internal controls. Information from watchdog institutions also points toward the fact that government departments do not properly account for funds allocated to them and corruption levels remain high.

Despite there being in place many legal instruments and watchdog's institutions for regulating and monitoring the ethical standards of public officials and processes, the management of public resources and institutions by the agents in places of authority in the country has not improved. For instance, according to Transparency International (TI), since 1997, Kenya has been ranked among the top ten most corrupt countries in the world. During the period, between 1997 and 2002 the TI indices were on a downward trend for example in 2001 Kenya's transparency rating was at 2.0, while in 2002 it dropped to 1.9(Mbai, 2003).

1.1.1 Internal Control Systems

The definition of internal controls is divided into financial internal controls and non-financial (administrative) internal controls(Byaruhanga, 2015). Financial internal controls relate to financial events and may be demonstrated by controls on corporate's money receipts and disbursements, funding operations and business's administration of receipts and disbursements. Non-financial internal controls on the other hand deals with activities that are indirectly financial in nature i.e. controls over company's personnel segment and its operations, fixed assets controls and even controls over laid down procedures (Raviv, 2016).

A robust internal control structure helps a body corporate to avert frauds, mistakes and curtail wastage. Custody and security of assets is strengthened; it provides guarantee to the administration on the trustworthiness of bookkeeping figures and eradicates redundant errors of commission and omissions. A good internal control system ought to help in the maintenance of adequate and reliable accounting records (Al-Tamimi & Al-Mazrooei, 2007).

Even though an internal control system is costly to develop, implement and maintain, it has gradually evolved over the years with the greatest development occurring at the beginning of 1940s. There are many measures that a state corporation can make use of to guarantee that financial transactions are properly authorized, appropriated, executed and recorded. Providentially, having in place a proper internal control system requires more of an investment of attention and due diligence than money, due to the dynamic nature of people interacting with the systems. Thus, any organization can have in place suitable controls and reap the benefits of ensuring its assets are adequately secure. An organization has a variety of controls to choose from. Generally, internal controls fall into four categories: proper authorization, proper documentation, proper physical security, and early detection. A state corporation needs to identify a select group of people with decision-making responsibility, and clearly define the who, what, where and when of financial transactions. Some strategies include: Establish an annual budget; provide the board with time to review it and ask questions and have it approved before the start of the fiscal year; creating a purchasing process that tracks purchase from request through payment; and making sure that staff know who has authority to obligate the corporation funds (Odoyo & Omwono, 2014).

Most importantly internal controls ensure the company's reliable records which are a source of information necessary for managerial decision-making processes are availed whenever required by management or both the external and internal auditors. It is therefore clear that the adoption of a sound internal control system is not only helpful to the management, but also to the external auditors. However, it's worth noting that internal controls only provide reasonable but not absolute assurance to an entity's management and board of directors that the organization's objectives will be achieved. "The likelihood of achievement is affected by limitations inherent in all systems of internal control" (Fehle & Tsyplakov, 2003).

1.1.2 Security of State Corporations' assets

The security of assets refers to the process of identifying an organization's assets, then the design, documentation, and execution of policies and procedures for safeguarding these assets (Brooks, 2010).

A State Corporation like other organizations uses such security management procedures such as the institution of internal controls which entails information classification, risk assessment, and risk analysis to identify threats, classification of assets, and rating system for vulnerabilities so that they can implement effective controls. Enterprise risk management strategies employed by State Corporations to ensure assets security should support strong corporate governance. A strong corporate governance presence is one of the ways to measure security of assets. Security of assets is also measured by visual observation, by monitoring reports through charts and statements. This study will adopt internal controls components namely control environment, risk assessment, control activities information communication and monitoring as the means to measure security of assets in State Corporations (Oduyo, Omwano & Okinyi 2014).

The State Corporations have the intimidating duty of attempting to secure data, equipment, people, facilities, systems, and all other company assets. The corporation could face civil or criminal penalties for negligence and for not using proper security controls. The objective of physical security is to safeguard personnel, information, equipment, IT infrastructure, facilities and all other company assets. The strategies used to safeguard the corporation's assets need to have a layered tactic. This approach makes it harder for an assailant to succeed when multiple layers must be bypassed to access the assets (Hutter, 2016).

1.1.3 State Corporations in Kenya

State Corporations are government owned units established under the State Corporations Act, chapter 446 of the Laws of Kenya. They were established to provide strategic and essential

services to Kenyans among them electricity, roads, water, road safety, railway transport, port services etc. Statutory bodies are also included in this category. They are formed for regulating various sectors in the economy. They are partly or fully owned by the State or by State controlled entities. The Kenya government forms State Corporations to meet socioeconomic goals. They exist for varied motives including: To rectify market failures, exploit socio-political goals, deliver education, health, and reallocate revenue or advance marginalized and under developed areas. At independence in 1963 Parastatals were transformed by Sessional Paper No. 10 of 1965 into instruments for the indigenization of the economy. By 2016, there were 110 gazetted State Corporations in Kenya as shown in table 1 below (*Info Hub Kenya, 2017*).

Table 1: State Corporations in Kenya

Economic Activity	No. of Parastatals
Manufacturing, Energy, Mining and Petroleum	60
Distribution and Information	8
Finance	15
Transport	13
Health, Agriculture and Others	13
Defense	1

Source: Info Hub Kenya (2017)

State Corporations in Kenya experience numerous hitches, including fraud, corruption, nepotism, and mismanagement. For example, a World Bank (2004) article stated that a key area for corruption-smashing restructuring is the State Corporation area. Kenya has much more State Corporations compared to other economies of similar developmental levels. Many of these

institutions strain public resources resulting in fueling corruption in public monopolies, especially when coupled with weak internal control systems, management and fiduciary control procedures. An area of Parastatal dominance that cries out for reform is the financial sector. For years the financial sector was the conduit for unlawful and unethical operations, not to mention mismanagement. In fact, from the Public Investment Committee reports of 2002, out of 130 reports examined by the Auditor General - Corporations, only 23 managed a clean bill of health.

The general story is one of loss, fraud, theft and gross mismanagement. In June 2003, the government revealed its economic recovery strategy for prosperity and job creation. Here, it reiterated the strategies and has since June 2005, rolled them out into action by requiring all boards of State Corporations to sign performance contracts with the government and the heads of these State Corporations are required to sign performance contracts with their respective Boards. All this is in a bid to revamp these corporations by ensuring improved and sustained performance and service delivery (Aparecida, Souza & Carmem, 2011).

1.2 Statement of the Problem

The research problem here is the fact that despite there being internal controls in State Corporations in Kenya, embezzlement, theft, misuse, fraud, mismanagement and misappropriation of State Corporation assets is still rampant among these organizations. Wanjara (2014) recommended that organizations must invest in establishing strong internal control systems to realize better financial performance. Studies have been carried out on the relationship between internal controls and other aspects and objectives of State Corporations. These for example include; internal controls and segregation of duties; internal controls and cash reconciliation; internal controls and inventory audits; internal controls and cost management.

State Corporations operate in a typical business environment and face similar challenges as other businesses. Organizations operating in the 21st century are faced with a challenging collection of risks and challenges. Dynamic factors like technological advances, the Internet, worldwide rivalry, complex financial instruments, business combinations and mergers, downsizing or right sizing, deregulation and increased consumer demands all form a riskier functioning atmosphere for State Corporations and business organizations in general. Interest in enterprise risk management (ERM) internal controls being part of it, has continued to grow in recent years(Odoyo, Omwano, & Okinyi,2014).

Looting, wastage, fraud schemes against public resources happens in Government institutions despite the internal control systems which are put in place and structured to deal with elements of fraud, wastage and loss of assets and resources at detective and preventative levels. An effectively functioning system of internal control can give management and oversight bodies the means to provide responsibility for their programs as well as the means to get sensible guarantee that the organizations they direct meet conventional goals and objectives (Neale, 2006).

Increasing numbers of organizations have implemented or are considering comprehensive internal control systems as they allow corporations to deal with a wide array of risks in an integrated, holistic fashion. Internal control systems seek to strategically contemplate the collaborative components in numerous risk occurrences with the aim of balancing an organization's complete collection of risks to be within the stakeholders' appetite or tolerance for risk (MacKay, 2005).

The mismanagement and failure to secure State Corporation's assets and resources has led to either the collapse or run down of big corporations in the past especially state-owned ones, with disastrous social and economic consequences, it is inevitable that the wider society would start

questioning how organizations in Kenya and the world at large were run. Most State Corporations have performed poorly since inception and copious amounts of money have been injected by the government to meet operating and capital expenses. In the 1990s for example many State Corporations were mismanaged and closed shop because of mismanagement, conflict of interest by members of the Board, including the board chairmen(Kamau, 2011).

Safeguarding or ensuring security of resources (assets) is one of the integral objectives of any organization. The objective is normally achieved via design and implementation of internal controls by boards of governance, management and other personnel (Altman, 2003).

A study by Bunyasi & Njiru (2016) found that effective internal control systems have a positive influence on the performance of water companies under Tana Athi Water Services Board.

However, to the researcher's knowledge there has not been local studies done on the relationship between internal controls and security of assets in State Corporations. This study therefore seeks to establish the role of internal control systems in enhancing the security of State Corporations' assets in Kenya.

1.3 Objectives of Study

1.3.1 General Objectives

The general objective of the study was to investigate the role of internal control systems on the security of State Corporations' assets in Kenya.

1.3.2 Specific Objectives

The specific objectives of the study were:

1. To identify the role of control environment activities on the security of State Corporations' assets in Kenya.

2. To identify the role of risk assessment process activities on the security of State Corporations' assets in Kenya.
3. To establish the role of information communication activities on the security of State Corporations' assets in Kenya.
4. To assess the role of monitoring activities on the security of State Corporations' assets in Kenya.

1.4 Research Questions

1. What is the role of control environment activities on the security of State Corporations' assets in Kenya?
2. What is the role of risk assessment process activities on the security of State Corporations' assets in Kenya?
3. What is the role of information communication activities on the security of State Corporations' assets in Kenya?
4. What is the role of monitoring activities on the security of State Corporations' assets in Kenya?

1.5 Significance of the Study

The study will help interest groups including risk assessors and practitioners like internal auditors and oversight bodies within the public sector who will make use the findings and recommendations to put in place measures to improve security and risk management practices as it will provide evidence of their role in enhancing the security of assets and resources in State Corporations. It will also help other stakeholders in the public sector like counties, partners and investors, both current and potential to gauge the level of risks involved when engaging with State Corporations in business. The study will offer a foundation and reference point in State

Corporations asset management for researchers upon which related and in-depth studies can be carried out. Policy makers in public resource management will profit from the findings as well.

1.6 Scope of the study

This study focused on State Corporations in Kenya. The internal auditors, finance and administration officers were surveyed to establish the relationships that exist between internal control practices in place and security of assets in these organizations. This paper covered the importance of physical security, digital and virtual security, along with the strategies that should be in place to implement physical security at facilities using administrative, technical and physical controls which in financial terms are normally referred to as internal controls.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Literature review comprises of a summary of surveys books, scholarly articles, and other materials reviewed and considered relevant to the area of study. The review provides a description, summary, and critical evaluation of these works in relation to the research. It comprises of theoretical and empirical literature review.

2.1 Theoretical Review

In this section, a summary of theories to support the area of study is given. The theory is introduced then linked to the area of study by a specific variable.

2.1.1 Agency Theory

The first scholars to propose, explicitly, that a theory of agency be created, and to begin its creation, were Ross and Mitnick (1972), independently and roughly concurrently. The theory states that agents are more informed and experienced regarding the principal's business than principals and that this gives the agents an upper hand which may adversely affect the principals' ability to ensure their interests are being adequately attended to by the agents. As such, the theory describes firms as necessary structures to maintain contracts, and through firms, it is possible to exercise control which minimizes opportunistic behavior of agents (Günl & Staudinger, 2012).

The agency theory, further states that to minimize the conflict of the interest between agents and principals, wide-ranging contracts are written to address the interest of both the agent and the

principal. The agent-principal relationship is strengthened more by the principal employing an expert and systems (auditors and control systems) to monitor the agent (Wachowicz, 2005).

Further the theory identifies that any inadequate information regarding the arrangement, interests or work performance of the agent designated could be antagonistic and a moral threat. Moral hazard and adverse choices impact on the productivity of the agent in two ways; failure to have the necessary knowledge about what should be done and failure to do what the agent is hired to do. The agency theory therefore works on the supposition that principals and agents act sanely and use contracts to maximize their wealth (Jensen and Meckling, 1976).

This theory was used by Thomas Rudder Smith in the study Agency Theory and its Consequences (Smith, 2011). Agency theory represents a shift in decision making responsibility from the owners to an agent. An organization is made up of a link of agreements between the owners of economic resources also referred to as principals, and managers referred to as agents who are charged with operational and strategic decision making regarding resources (Huberman & Wang, 2005).

This theory was applicable to this study simply because internal control is one of many instruments applied in business to address the agency problem by minimizing agency costs that touch on the total performance of the agent as well as the good of the principal. Internal control said in provision of additional information to the principal, about the behavior of the agent (management), reduces information asymmetry and lowers investor risk and low revenue (Nyaigotti-Chacha, 2004).

2.1.2 Attribution Theory

This theory was originally proposed by Heider (1958), an Austrian psychologist, in which he attempted to explain why the perceivers attribute the properties of an object they sense to the object itself when these properties only exist in their minds. Proponents of this theory include Sullivan & Sheffrin (2003), who studied using attribution theory to scrutinize the usage of information in the communal setting to explain events and behaviors.

Young Shin Kim, (2012) declares that when assessors trust similar people would have acted differently in each circumstance, they (assessors) tend to attribute accountability for consequence to the person. Attribution theory deals with how individuals understand events and behaviors and how they attribute causes to the events and behaviors. On the other hand, when assessors believe similar persons would have acted similarly, the evaluators have a habit of attributing responsibility for the outcome to the situation.

According to (Frenkel, Hommel, & Rudolf, 2000) the first situation denotes to interior or dispositional attributions while the second one refers to external or situational attributions. Earlier literature shows that people are inclined to attribute others behavior to dispositional inclinations and to attribute their own behavior to situational circumstances (Nyong'o, 2014). Often, this is when the experiential deeds are undesirable. Accordingly, assessors are likely to conclude the letdown to detect internal control on assets security as a dispositional inclination on the management's part which concludes that managers and oversight bodies are negligent.

Attribution theory therefore proposes that auditors report on the efficiency of firms "internal control systems. Auditors are required to seek to gain a better understanding of the controls activities in place, evaluate, propose, implement and test the operating effectiveness of the internal controls of their client's firms. This is deemed necessary for the auditors "independence

and perhaps scaling back of other substantive audit procedures for the required level of security assurance.

According to Raviv & Abudy, (2016), evaluators can use the audit processes as a basis to determine negligence if auditors fail to detect internal control related lapses and malpractices that may occur. The attribution theory suggests that when fraud and other malpractices occur, identified parties should be held accountable. Accountable parties will include management, governance bodies and auditors. Auditors, being the “public watch dogs” are most likely to be held accountable if assessors determine poor audit services were provided (MacKay, 2005). The theory was important as we seek to attribute the effect of internal controls on the security of assets.

2.1.3 Reliability Theory

Reliability theory was proposed by F.P. Ramsey (1931), who said that a belief is knowledge if it is true, certain and obtained by a reliable process. Reliability theory refers to the likelihood of a structure finishing its probable purpose during an interval of time (Abdullahi, 2016). It was originally a tool used to help nineteenth century maritime insurance and life insurance companies in calculating gainful charges for their clients. According to the reliability theory, an internal control system comprises of components that are interrelated and for each component there needs to be a defined measure of success. As such, the state of a component is determined by whether the constituent outcome positive or negative.

Reliability theory deals with the possibility of a structure finishing its expected purpose given an interval of time (Yeddanapudi, 1997). It was traditionally an instrument used to help nineteenth century oceanic insurance and life insurance firms in calculating profitable charges to their customers. According to the reliability theory, an internal control systems made up of

components that are interrelated and for each component, there needs to be a defined measure of achievement. As such, the state of a component is determined by whether the component is “*successful*” or “*not successful*”. A component is said to be reliable if there exists a probability of a component being found in the success state. Additionally, the dependability of the entire internal control system is a mixture of two possible values, “*success*” and “*failure*”. This study considered the part of the reliability theory which relates the internal control system to component reliabilities.

The possibility of tracking the reliability theory to the assessment and design of internal control systems appears in professional literature but no applications have been reported that draw upon the significant power of the theory of reliability (Brighan E.F, 1999). The two potential users of the reliability theory are the external auditor and organization management. (Alon Raviv, 2016) states that; external auditors put together evidence, during the external audit, to arrive at a professional opinion. The principle aim of risk monitoring is the risks mitigation. It is to ensure that material errors are prevented and or detected on a timely basis by the system. Weak internal control systems result in more substantive investigations meaning the project ends up being costlier. According to Kithinji, (2010), the determination of the “*weakness*” of any internal control system is primarily judgmental and can be subjective.

Messier Jr. and Austen (2000) state that one of the primary advantages of the reliability theory is its close relationship to the auditor's needs regarding understanding the internal control system and control risk assessment. According to Stratton (2007), recent developments have increased the value to management of goal methodologies for the assessment of internal control systems. Firm managers are tasked with the responsibility of ensuring the accuracy in these systems. Keyl

(2002) also adds that the process of assessment of the internal control system by both management and external auditors is subjective as it calls for personal judgment.

This theory was used by Esther Njiru in the conference proceeding document article titled: The role of State Corporations in a Developmental State: The Kenyan experience (Njiru, 2008).

The theory was important to this study given that the researcher attempted to model the effects of internal control components on security of assets in State Corporations. The reliability of the internal control system is to some extent affected by systemic difficulties in modeling social systems, lack of cost efficacy, and being bypassed by professionals. The aforementioned factors had the potential to hinder the project from achieving its objectives within expected timelines.

2.1.4 Dynamic Risk Management Theory

The theory was proposed by Cleary and Malleret, (2007) where in their perspective the influence of risk factors could have connotations of positive or negative impact and assumes risk to be a generator of both potential losses and opportunities. The theory of dynamic risk management suggests an endless likelihood, ceaseless design model of an establishment that can enthusiastically change the process and maturity of risk management tools to lessen or eliminate financial distress risks. The model provides a scenario where controls are more dynamic than static in comparison to conventions presented in traditional models. It assumes that; it is possible for an organization to alter the use of risk management tools over time; that the passage of time might bring about the end of risk management tools; that the firm generally outlives the risks presented by management tools; and the introduction of risk management tools brings along additional costs in the form of transactional and legal costs. The model demonstrates how various sections interact and how institutions make use of short-term tools to alleviate long-term asset risks. Investigation outcomes show the optimal timings, adjustment, and deferment of risk and its management tools. The model forecasts that those organizations with no experience in

financial distress as well as those in distress hardly ever adjust their risk management tools. Organizations not in either extreme actively adjust and/or defer their risk management tools (Sullivan and Sheffrin, 2003).

Lowe and Yasuhara (2013) is a study that propose the Dynamic Risk management theory as a way of modeling a well-off perception as to why organizations should handle risk, as well as present predictions on how the organizations interpret the invitations to explain the risk into actual decisions on the choice of risk management tools and how these procedures change over time.

This theory is relevant and applicable for risk assessment and management. An organization should use a risk assessment tool for as long as it is relevant and applicable in decision making regarding assets security. The tool can then be surrendered when it becomes obsolete or irrelevant.

2.2 Empirical Review

This section dealt with review of empirical literature which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to the topic of study.

2.2.1 Control Environment and Security of Assets

Control Environment refers to the general attitude, alertness and actions of directors and management regarding the internal control system and its importance to the organization. These are actions, policies, values, and management styles that influence, and set the tone of a firm's day-to-day activities.

Control Environment sets out the tone for a firm; it influences the control perception of its people. It is the underpinning for all other mechanisms of internal control that provides discipline

and structure. Control environment characteristics include the veracity, moral values and aptitude of the entity's human resources; management's philosophy, operating style and organizational culture; the way management allocates authority and responsibility, arranges and grows its people. It also deals with the level of devotion and path offered by the governance body (COSO, 2011).

A study conducted by Rehana (2010) considered the useful effects of varied issues on co-operation between internal and external auditors of listed banks in Bangladesh. Findings revealed that co-operation promoted through management and the audit committee is the most crucial factor for measuring co-operation between internal and external auditors followed by specialized confidence, co-operation and consultation, reliance on internal audit and communication. The results and findings of this study are relevant to our study in the sense that external audit committee is the important control environment variables of the banks as it is for State Corporations in our study in relation to security of assets.

Ali, Khan, Fatima and Masud (2008) carried out a study on the efforts on various aspects of internal control variables on Bangladeshi firms. 25 respondents from the corporate firms were interviewed. They found that only a handful of them disclose and comply with the methodical control variables and the corporate governance aspects on a voluntary basis and little efforts made by them to have sound control environment that would ensure maximum security of assets.

In an empirical study by Valentine, Godkin and Lucero (2002), a positive association was found to exist between a healthy control environment and employee organizational commitment. Based on a sample of 304 young working adults, Valentine et al (2002) found that a good control environment was positively and significantly associated with the level of employees'

organizational commitment. Furthermore, in a recent study, Kizirian and Leese (2004) studied audit papers of 60 information systems audit engagements and found that the ethical tone of the audit clients' management has a significant impact on the strength of their security controls.

A study by Maguand Kibati (2016), sought to establish the influence of internal control systems on the financial performance of Kenyan banks. The study focused on two internal control systems components namely control environment and control activities. Target population was 78 managers in this explanatory research. The study adopted a Census design. The data was modeled by means of inferential and descriptive statistics. The results of study showed that the employees were not sufficiently equipped with necessary skills to effectively implement the accounting and monetary management systems. The security systems did not identify and safeguard organizational assets. Similarly, this study found a positive but insignificant relationship between a strong control environment and security of assets.

2.2.2 Risk Assessment and Security of Assets

The Risk Assessment process is the identification and analysis of relevant risks to achievement of the objectives, forming a basis for determining how the risks should be managed (Dallu, 2016).

These processes will vary hugely depending upon the nature, size and complexity of the corporation. However, larger organizations (usually listed ones) will have internal audit departments, whose roles focus heavily on risk identification and assessment. If the client has robust procedures for assessing the business risks it faces, the risk of misstatement, overall, will be lower.

Arnold (2002) explores the empirical trial of the features of risk assessment and management as part of internal controls of banks in India. The findings of the research state that risk

assessment and management is an integral part of an effective internal control system. It found that the strategic risks were ranked on top in order of importance, and then came the operational risks and finally empowerment or authority risks being disclosed by the selected institutions. The scope of risk assessment and management was also found to be influenced by the nature of industry in which the company works. Risk assessment is the recognition, analysis and management of relevant risks which can impair the achievement of an organizations objective, including a basis for establishing how the risks should be dealt with. The operating environment for organizations continues to evolve and change in terms of economic, industry, regulatory and operating conditions. The dynamic nature of these calls for robust mechanisms to identify and deal with the special risks associated with the business risk components in the internal controls.

According to the IIA-PPF (1999), risks are assessed to establish the probability of an event happening, the impact of the event, and risk tolerance level of the process. Once the risks are identified the risks are then classified as high, medium or low. Based on the accuracy of the assessment, risk acceptance level can then be fixed. To determine whether internal controls are effective, relevant risk information relating to an organizations resources should be determined and communicated in a timely manner across the firm. This will make it possible for staff, management and the board to carry out their responsibilities. We found a negative relationship between risk assessment and security of assets in our study.

2.2.3 Information Communication and Security of Assets

Information Communication is the exchange of useful information between and among people and organizations to support decisions and coordinate activities. Information should be communicated to management and other employees who need it in a form and within a

timeframe that helps them to carry out their responsibilities. Communication with customers, suppliers, regulators and other outside parties are also essential for effective internal control. Information can be communicated verbally, in writing and electronically. While verbal communication may be sufficient for many day-to-day activities, it is best to document valuable information. This provides a more permanent record and enables managers and others to review the information. Information should travel in all directions to ensure that all members of the organization are informed and those decisions and actions of different units are communicated and coordinated(Thomas, Ratcliffe, & Charles, 2009).

A study by Fleming, (2016) found that public companies have stronger anti-fraud environments, are more likely to have frauds that involve timing differences, tend to experience larger frauds, have frauds that involve a larger number of perpetrators, and are less likely to have frauds that are discovered by accident. They further state that Information communication is indispensable and of essence affects control in an organization. Information about an organization's plans, control environment, risks, control activities, and performance must be communicated to all players that make up and interact with the organization. Dependable and applicable 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 are 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.

Formal information and communication systems which range from sophisticated computer technology to simple staff meetings should provide input and feedback data related to operations, financial reporting, and compliance objectives; such systems are crucial to an organization's success. Just the same, informal conversations with faculty, customers, suppliers, regulators, and

employees often provide some of the most critical information needed to identify risks and opportunities. Information communication is a simple concept. 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(Deladem, 2014).

Information communication influences security of assets since if effective and timely, threats can be interjected before asset security is compromised. If security is threatened the situation can be arrested and prevented from happening and or recurring. We found a positive and significant relationship between effective information communication process and security of assets.

2.2.4 Monitoring Activities and Security of Assets

Monitoring refers to the supervision of activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets. Internal control systems need to be monitored - a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities, separate evaluations or a combination of the two. On-going monitoring occurs during operations. It includes regular management and supervisory activities, and other actions personnel take in performing their duties. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures. According to NYSGAAIC Act of 2007 monitoring is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. Management should focus monitoring efforts on internal control and achievement of the organization's mission. For monitoring to be most effective, all employees need to understand the organization's mission,

objectives, risk tolerance levels and their own responsibilities(International Organization of Securities Commissions , 2012).

Mirach, (2010) found that Organizational strategy on the monitoring process must exist in writing. The monitoring powers of individuals or committees as well as the basis of those decisions must also be documented. Monitoring authorities should be authorized by the governance body namely the board of directors. Barra, (2010) conducted a study on the effects of internal controls on employee's tendency to commit fraud. The study used the analytical approach and focused on control activities and monitoring. Primary data was collected from managers and non-managerial members of staff. The findings indicated that the existence of the control activities, separation of duties as a monitoring related activity, increases the cost of committing fraud. Thus, the benefit from committing fraud must outweigh the cost in an environment of segregated duties for an employee to commit fraud. Further, it was established that segregation of duties is a "least-cost" fraud deterrent for non-managerial employees, but for managerial employees, maximum penalties are the "least-cost" fraud disincentives. The results indicated that the effectiveness of preventive controls control activities such as segregation of duties is dependent on detective controls.

A study by Uwaoma & Ordu, (2015) examined the impact of internal controls on the monetary management of studied Production companies in Rivers State in Nigeria. The sample size of the research consisted of 20 Production companies in Rivers State. The study used questionnaire and correlation method of analysis was adopted. Two hundred and two (202) correctly responded copies of questionnaire out of 222 administered were analyzed. The study found that effective internal controls improves monetary management of organizations whilst in conclusion, it was recommended that, Management should ensure that there are adequate controls to decrease meddling in terms of funds and assets management and controls. The internal control system

should be remolded and strengthened to position the staff in carrying out their duties efficiently and effectively and at the same time evaluated periodically to strengthen its weaknesses in the organization to reduce the likelihood of perpetrating fraud and loss of organizations funds by the staff amongst others.

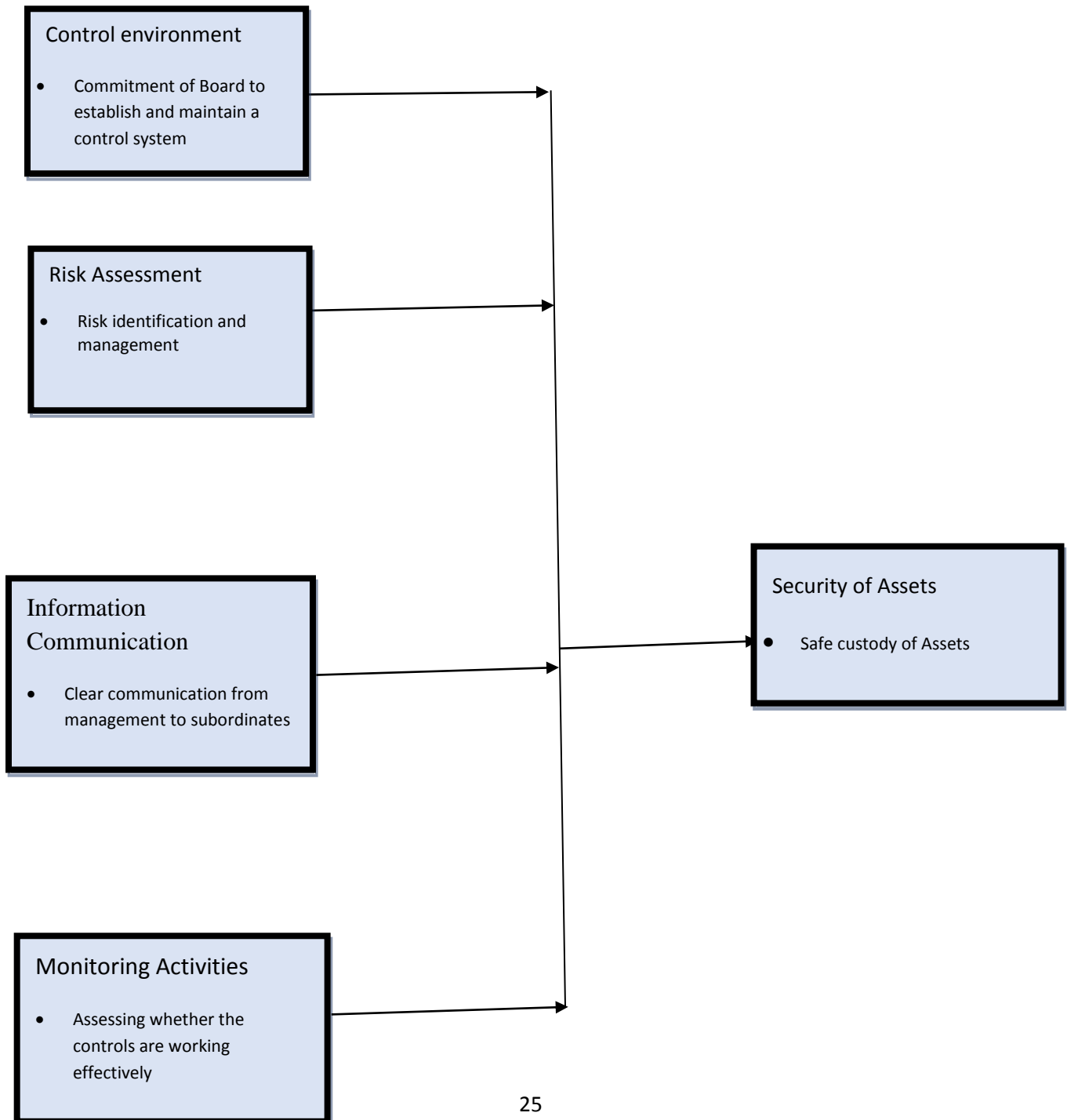
A study by Abdullahi, (2016) found that the dimensions of internal control systems (information and communication systems, internal audit, and monitoring) has a significance effect on the financial performance of Higher Education Institutions in Puntland State of Somalia. The main objective of this study was to establish the role of internal control systems on the financial performance of Higher Learning Institution in Puntland. Internal controls were looked at from the perspective of Information and communication systems, Internal Audit and Monitoring and Financial performance as dimension. The study was carried out using quantitative survey design. The sample size for the study was 30 respondents. Questionnaires were used to collect data. Findings were generated using correlation and regression. The findings of the study were that management of the institution was dedicated to the control systems, actively participated in monitoring and supervision of the activities of the institutions and that communications systems are in place. The study concluded that monitoring had helped in evaluating the quality of performance of the institution over time. However, the study also found out that there were no sufficient security procedures to ensure security of assets of the institution. This was attributed to fees charged to students being not sufficient to cover the said cost. We found a positive and significant relationship between monitoring activities and security of assets.

2.3 Conceptual Frame Work

Independent Variables

Dependent Variable

Figure 1



2.3.1 Operationalization of variables

Table 2: Operationalization of Variables

Variable	Type of Variable	Indicators	Measurement	Scale of Measurent	Tool of Analsi
Security ofAssets	Dependent Variable	<ul style="list-style-type: none"> • Accountability for assets and resources • Physical security 	<ul style="list-style-type: none"> • Assets Custody and responsibility records 	Nominal	SPSS Likert scales
Control Environment	Independent Variable	Control environment components <ul style="list-style-type: none"> • Personnel and 	<ul style="list-style-type: none"> • Background checks on personnel • Management 	Nominal	SPSS Likert scales
Risk Assessment	Independent Variable	Risk analysis tools in use <ul style="list-style-type: none"> • Type of risk • risk register scoring 	Extent of influence of risk assessment practices on assets security	Nominal	SPSS Likert scales
Information Communication	Independent Variable	<ul style="list-style-type: none"> • Frequency of information communications • Effectiveness of information 	Extent of influence of communication activities on security of assets.	Nominal	SPSS Likert scales
Monitoring Activities	Independent Variable	<ul style="list-style-type: none"> • Controls in place • Who is responsible for asset security monitoring? • Risk assessment procedures and 	Extent of influence of monitoring activities on assets security.	Nominal	SPSS Likert scales

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

This part of the study spelt out how the research was conducted to realize the purpose and objectives of the research. It contains the research design and methodology used in the study. In this section, the population is spelt out, the sample size determined, the design, sampling procedure, and research instruments, techniques of data analysis, data compilation used in the study are all discussed.

3.2 Research Design

This study was carried out through a descriptive research methodology. Orodho (2008) describes a research design as the presentation, draft or plan that is applied to arrive at answers to the research questions. Creswell (2008) affirmed that the goal of descriptive study is to gather data about the present situation. The stress was on describing and not on pronouncing judgment or explanation. The economic aspect will be practical with the descriptive approach given that the characteristics being studied are partly qualitative in nature.

3.3 Target Population

Target population refers to the population to which the study outcomes are generalized. The population studied by this research comprised of all the State Corporations located in Kenya. The target population of the study will be 110 State Corporations in Kenya (Info Hub 2017).

3.4 Sample Size and Sampling Technique

Stratified random sampling technique was used to select a sample of 34% of State Corporations in Kenya. Thus 38 State Corporations formed the sample. According to Creswell and Path (2017) a sample size of between 20% and 30% is sufficient in social studies.

One Internal Auditor and one officer in Finance and Administration from each of the 38 Corporations were requested to fill a questionnaire.

This sample is considered to be reasonably representative of the entire population and was considered large enough to offer a broad outlook of the total population. For this reason, it served as a foundation and as a good basis for legitimate and steadfast conclusions.

3.5 Instrumentation

The study made use of a questionnaire. Given that we used the instrument to collect primary data, it was most appropriate. The structure of the questionnaire is in two parts. Part one was to capture data on the respondent and their organization while part two gathered data on the research variables.

The questionnaire was justified and regarded as a good tool to collect data as it enabled service to the respondents in person and collected after two days. The questionnaire also contained closed and open-ended questions and enabled the researcher to field standard questions. It also facilitated wide coverage of area of study and confidentiality and still accorded respondents the choice to decline the interview.

3.6 Data Collection

The study used primary data. The study used structured questionnaires to gather data which will then be used for comparisons about internal control practices in Kenyan State Corporations. The questionnaires were administered to 75 respondents from 38 State Corporations. The questionnaire is in two parts; part one gathered information about the respondents and their organizations while part two gathered information about internal control systems, as well as the management approaches of each of the State Corporations. The questionnaires were delivered to the respondents in person and collected after two days.

3.7 Validity and Reliability of the Questionnaire

Validity in research refers to the measure of the level of precision of the research tool according to the purpose of the study. The instrument is tested to verify that it measures what it is intended to. The self-administered questionnaire was validated using the content validity, which is a process of rational scrutiny that involves cautious and serious assessment of individual items in the questionnaire. Selected respondents were interviewed to test the validity of the questionnaire.

Reliability implies that a measuring instrument should be able to give dependable and unwavering outcomes. Reliability implies that other researchers should come to similar outcomes if they were to use the same instrument. To determine the reliability, a single test was administered to test the inner steadiness of the tool. Cronbach's alpha with a value of 0.7 is a measure of internal consistency, that is, how closely related a set of items are as a group. A single test was administered to obtain a coefficient of reliability (or consistency).

3.8 Model Specification and Diagnostic Tests

This study adopted a multiple regression analysis model specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where,

Y is the dependent variable (security of assets measured by percentage of resources lost through fraud, theft and misappropriation)

β_0 is the regression equation coefficient,

β_1 , β_2 , β_3 , and β_4 are the coefficients of the independent variables that were determined and the independent variables are;

X_1 = Control Environment

X_2 = Risk Assessment

X_3 = Information Communication

X_4 =Monitoring Activities

$\hat{\epsilon}$ is the error term. The error term is assumed to be normally distributed about a mean of 0 and for purposes of computation, the $\hat{\epsilon}$ is assumed to be 0. The equation was solved using statistical model where SPSS was applied to apply the least square regression model.

3.8.1 Multicollinearity test

The regression model was tested for multicollinearity using the VIF test. If the VIF is equal to 1 (one) then there is no multicollinearity among variables, but if the VIF is greater than 1, the predictors may be moderately correlated. If the data contains multicollinearity it will be treated before fitting the model. There was no multicollinearity among the independent variables.

3.8.2 Homoscedasticity test

The data was tested for homoscedasticity which refers to the variance of the residuals of the model being constant over time rather than a function of time - $VARx(t)$. If the residuals of the model are not constant the data will be treated for homoscedasticity. Breusch-Pagan / Cook-Weisberg test is used. If the data had a Chi-square (p), value of $p < 0.05$, it will be treated for homoscedasticity. There was no homoscedasticity observed in the model.

3.8.3 Normality Test

The data was tested for normality to determine whether sample data has been drawn from a normally distributed population (within some tolerance). The Shapiro - Wilk test was used. The null-hypothesis of this test is that the population is normally distributed. Thus, if the p -value is less than the chosen α level, then the null hypothesis is rejected and there is evidence that the

data tested are not from a normally distributed population; in other words, the data are not normal. The data was found to be from a normally distributed population.

3.9 Data Analysis and Presentation

The questionnaires obtained from the respondents will first be checked for completeness, consistency and accuracy. The questionnaires will then be coded and entered into a computer data base. Data will be analyzed using descriptive statistics, correlation analysis and multiple regression analysis. The results of the analyzed data will be presented using tables and pie charts.

CHAPTER FOUR

ANALYSIS, RESULTS, AND DISCUSSIONS

4.0 Introduction

This chapter dealt with data analysis, findings and interpretation of the results. Results were presented in tables. The analyzed data was arranged under topics that reflected the research objectives.

4.1 Response Rate

The numbers of questionnaires issued to respondents were 75. A total of 66 questionnaires were filled and returned. This represented an overall response rate of 88% as shown on Table 4.1. Mugenda and Mugenda (2003) and Kothari (2004) recommend an answer rate of above 50% as acceptable for a descriptive study. Babbie (2004) also observed that return rates of above 50% are acceptable to investigate and publish, while a rate of 60% and 70% is good and very good respectively. The response rate was excellent.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	66	88
Unreturned	9	12
Total	75	100.0

4.2 Demographic Characteristics

This part dealt with evidence that defines basic demographics such as gender, age, level of education and years worked in current position of the respondents.

4.2.1 Gender of the respondents

The respondents specified their gender. The male gender was the majority of the respondents which was at 71.2% of the sample whereas 28.8% were female. This implies that the top places of State Corporations are male dominated. However, there is a fair gender representation in most State Corporations though still below the 30% threshold required by Constitution of Kenya 2010. This requirement looks not just at the numbers but also considers portfolio balance on how gender is distributed among positions in the public entities and institutions.

Table 4.2: Gender of Respondents

Gender	Frequency	Percent
Male	47	71.2
Female	19	28.8
Total	66	100.0

(Author 2017)

4.2.2 Age of the Respondents

Respondents indicated their age brackets with the majority of the respondents being in the bracket of 34-44 years at 59.2%, the age bracket of 45-53 years was 24.2%, while 54-62 years were 12.1%, the rest were at least 63 and above years old comprising of 4.5%. This implies that most of the employees in these organizations particularly in audit, and finance and administration are a mix of younger and older employees. They are therefore expected to understand the operations of the organization well.

This could also mean that issues of organizational succession, transfer of knowledge, as well as corporate mentoring is well taken care of with this kind of spread in the age parities of employees in State Corporations.

Table 4.3: Age of Respondents

Years	Frequency	Percent
34-44	39	59.2
45-53	16	24.2
54-62	8	12.1
Above 63	3	4.5
Total	66	100.0

(Author, 2017)

4.2.3 Highest Level of Education

Level of education was one of the parameters in the questionnaire. As shown in table 4.4 majorities of the respondents had a bachelor's degree as their highest level of education with a score of 63.64%. Master's degree holders came in next at 22.73% and 12.12% had doctorate qualification. Diploma holder was only one at 1.51%. The study outcome means that the respondents have knowledge of the questions and know how to fill the questionnaire and gave effective answers since they understood the organizations as shown by their education level. This could also mean the government takes good care of the education needs of its staff. With proper education among state officers there is hope of not only delivering good services but also possible increase in accountability among employees.

Table 4.4: Highest Level of Education

Level of education	Frequency	Percent
Diploma	1	1.51
Bachelor degree	42	63.64
Master's degree	15	22.73

Doctorate	8	12.12
Total	66	100.0

(Author, 2017)

4.2.4 Employment Duration

On the duration of employment, an average number of the respondents at 22.7% have worked for 1-5 years, 37.9% have worked for 6-10 years, and 24.2% have worked for 11-15 years while 15.2% have been in employment for periods more than 16 years. This suggests that majority of the respondents have been in the service for a respectable period thus are experienced as shown in Table 4.5. This also indicates that there is low employee turnover among the public service and could be a good indicator of desirable retention levels which helps State Corporations implements both its long-term and short-term plans to achieve their respective missions and objectives.

Table 4.5: Duration of Employment

Years	Frequency	Percent
Less than 1	0	0
1 –5	15	22.7
6 - 10	25	37.9
11 – 15	16	24.2
16 and more	10	15.2
Total	66	100.0

4.3 Descriptive Statistics

This division represents the descriptive outcomes on Control Environment, Risk Assessment, Information Communication, and Monitoring Activities.

The use of internal control components was undertaken to determine the extent to which it affects the security of assets in state Corporations in a five-point Likert scale. The range was from 'strongly disagree (1)' to 'strongly agree' (5). The scores of both 'strongly disagree' and 'disagree' have been taken to represent a variable which had a mean score of less than 2.5 on the continuous Likert scale. The scores of 'neutral' have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale while the score of both 'agree' and 'strongly agree' have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale. A standard deviation of > 0.9 implies a significant difference on the impact of the variables among respondents.

4.3.1 Control Environment

The assessment of the effect of control environment was the first objective of the study on security of assets of State Corporations. The respondents responded to statements on control environment. Rated on a five Likert scale, the results were as shown in Table 4.6. The respondents disagreed on the role of the attitude of board toward ethical behaviour as well as their ethical behaviour as not having significant role on security of assets with a mean score of 1.9 and 2.3 respectively. The standard deviation of 1.18 for Board integrity and 0.66 for ethical behavior meaning that there was significant difference in responses for Board integrity while for Board ethical behavior the impact of control environment on security of assets among the respondents was not significant. The respondents were further in agreement that the adherence to code of conduct by all staff safeguards assets (mean=4.53); management philosophy helps in

safeguarding security of assets (mean=4.32); the way management assigns authority advances security of assets (mean=4.39) and the way management develops its people inculcates the culture of safeguarding assets(mean=3.95). The high standard deviation of >0.9 indicates that there was high variation among the respondents.

A strong control environment permits the State Corporations to prevent risks that threaten security of assets. The results indicate that control environment by the corporations was important as it enabled the organization to identify possible sources and attitudes that could threaten security of its assets and seal the gaps hence prevent possible risks from happening.

Table 4.1:Control Environment

Statement	N	Mean	Std dev,
Management commitment to integrity behavior assist in safeguarding the corporation assets	66	1.9242	1.18075
Board commitment to ethical behavior assist in safeguarding the corporation assets	66	2.2576	0.66357
Strict adherence on the code of conduct by all staff safeguards assets of the corporation	66	4.5303	0.94819
What level best describes your current position in your State Corporation	66	3.0909	1.06305
Management’s philosophy and operating style advances the safeguarding of company assets	66	4.3182	0.96331
Board’s operating philosophy advances the security of corporation’s assets	66	4.4545	1.11192
The way management assigns authority enhances asset security in the corporation	66	4.3939	1.12152
The way management assigns responsibility advances the corporation’s assets security	66	4.5000	0.99615
The way management develops its people inculcates the culture of assets security	66	3.9545	1.22074
The way board pays attention to the direction taken by organization in performance helps in safeguarding assets	66	3.3485	1.18312
Valid N (list wise)	66		

(Author, 2017)

4.3.2 Risk Assessment

The analysis of the effect of risk assessment was the second objective of the study. The respondents rated on a five Likert scale, the responses were as obtainable in Table 4.7. The

respondents disagreed or were neutral on the impact of risk assessment statements on the security of assets. The low mean scores of 1.69, 2.40, 2.54, 2.83, 2.89, 3.31, 3.34 and 3.36 for the Risk Assessment statements corroborate the respondent's perception on the role of this variable on security of assets. The standard deviation was >0.9 on average indicating that the variation among the respondents was high. The results indicate that assessment of risks by the State Corporations was not considered important. Probably this is the case given that State Corporations hardly carry out formal risk assessment in practice. The respondents therefore did not consider risk assessment as having a positive impact or were simply neutral to statements on risk assessment.

Table 4.2: Risk Assessment

Statement	N	Mean	Stddev.
That the company ranks all risks identified facing its assets	66	1.6970	0.74358
That the company keeps an updated register of risks facing all its assets and reviews it periodically	66	2.4091	1.26463
The company undertakes inclusive risk identification across all departments facing its assets	66	2.5455	1.34944
The company undertakes comprehensive risk identification in all its departments facing assets	66	2.8333	1.50469
That the corporation sets a requirement for review of its risks periodically	66	2.8939	1.09725
That the company uses risk transfer such as insurance of its assets as an integral management strategy for its assets	66	3.3182	1.21730
That the company classifies its risk management strategies for its assets that include risk retention, transfer, spread, avoidance.	66	3.3485	1.14344
That the entity incorporates in-depth risk evaluation faced by its assets	66	3.3636	1.38826
Valid N (list wise)	66		

(Author, 2017)

4.3.3 Monitoring Activities

The third objective was to determine the effect of monitoring activities on asset security of corporations. The results presented in table 4.8 shows that the respondents agreed that the management closely monitors implementation of control activities in the institutions with mean

scores ranging 3.07,3.09,3.21,3.28,3.36,3.51,3.59, and 4.30). The standard deviation was consistently >0.9 indicating that there was high variation among the respondents on implementation of Monitoring activities and its impact on security of assets.

Table 4.3: Monitoring Activities

Statement	N	Mean	Std dev
That serious matters on control failures that threaten asset security should be escalated to the Board	66	3.0758	1.36224
That the company has separate evaluation on value for money on assets bought	66	3.0909	1.18617
That periodically the board engages the services of an independent evaluator to give a professional opinion on the safety of the corporation's assets	66	3.2121	1.27116
That the company has ongoing monitoring to ensure good cash management	66	3.2879	1.21231
That internal control deficiencies on immovable assets such as company land are promptly reported upstream	66	3.3636	1.18499
That periodically management engages the services of an external evaluator to value the entities assets	66	3.5152	1.35013
Regular supervisory activities are performed to monitor movable assets e.g. vehicles assets and ensure safety and good use	66	3.5909	1.24007
That internal auditors inspect periodically existence of recorded company assets	66	4.3030	1.08088
Valid N (list wise)	66		

(Author, 2017)

4.3.4 Information Communication

The fourth objective was on how information communication affects security of assets of State Corporations in Kenya. Results in table 4.9 show that information communication had a **positive** impact on security of assets. The responses on an average Likert scale had a mean of between 3.1 and 4.3 which indicated that the respondents agreed to most of the questions asked. The standard deviation was consistently above 0.9 which indicates that the responses were varied. The results imply that information communication influence the security of State Corporations in Kenya.

Table 4.4: Information Communication

Statement	N	Mean	Std dev
That members of staff are required to declare any conflict of interest they have during disposal of company assets	66	3.1818	1.27592
That there exists a means of communicating significant information that threatens the safety of assets of the company	66	3.4242	1.20334
That there is a reward scheme such as promotion for those who excel in safeguarding the entity's assets.	66	3.5152	1.14007
That penalties are well spelt out on abuse of company assets by its personnel in custody	66	3.5758	1.11024
Negligence in protecting assets under an employee custody has punishment spelt out	66	3.7879	1.22179
That it's clearly spelt out on how shared assets are protected	66	4.1970	1.05568
That the entity ensures that its staff must understand their own role in the internal control system of asset security	66	4.3333	1.01274
Valid N (list wise)	66		

(Author, 2017)

4.3.5 Security of Assets

The dependent variable namely Security of Assets descriptive statistic was as shown on table 4.10. They indicate what the respondents think about if the State Corporation's assets are secure. On an average Likert scale the responses had mean of between 3.0 and 3.9 which indicated that the respondents agreed to some of the questions asked while they were neutral to some. The standard deviation was consistently above 0.9 which indicates that the responses were varied. The results imply that security of assets can be linked to how well most internal control components are implemented.

Table 4.5: Security of Assets

Statement	N	Mean	Std dev
Whether incidences of malpractices if any threaten the organizations assets security	66	3.0000	1.38119

Whether in your opinion the assets of your organization are secure	66	3.0606	1.36865
That noncompliance to audit findings on assets security is seriously addressed by the board in a firm manner	66	3.0758	1.38465
Whether theft of organizations assets is a frequent occurrence in your company	66	3.1515	1.54165
That the organization maintains an effective internal control that provides reasonable assurance that the entity follows state regulations required for asset security	66	3.7121	1.06360
The organization takes prompt action when instances of noncompliance to regulations are identified	66	3.8182	1.09417
That the inventories of your company are properly stored and recorded.	66	3.9242	1.11370
Valid N (list wise)	66		

(Author, 2017)

4.4 Inferential Statistics

Correlation results were generated by inferential analysis, model of fitness, and analysis of the regression coefficients and the variance.

4.4.1 Correlation Analysis

Using correlation analysis, the study sought to examine the nature of relationship between the dependent variable and the independent variable indicators. Using Pearson correlation coefficient (r) and p -value analysis, a correlation was considered significant when the probability value was below 0.05 ($p\text{-value} \leq 0.05$). Correlation values (r) close to zero meant a weak relationship and r close to one meant a strong correlation existed.

Table 4.11 below presents the findings of the correlation analysis. The results show that all independent variables of Control environment, Risk assessment, Information communication, and Monitoring activities have a meaningful relationship with the dependent variable as the p values are less than at 0.05 (2-tailed significance level). Control environment and Risk assessment have a below average positive relationship with asset security. Information communication and monitoring activities have a strong positive relationship with asset security.

Table 4.6: Correlation Matrix

		Control Environment	RiskAssessment	Information Communication	MonitoringActivities	Securityof Assets
ControlEnvironment	Pearson correlation Sig. (2-tailed) N	1 66				
RiskAssessment	Pearson Correlation Sig. (2-tailed) N	.321** .009 66	1 66			
InformationCommunication	Pearson Correlation Sig. (2-tailed) N	.353** .004 66	.625** .000 66	1 66		
MonitoringActivities	Pearson Correlation Sig. (2-tailed) N	.368** .002 66	.542** .000 66	.752** .000 66	1 66	
Securityof Assets	Pearson Correlation Sig. (2-tailed) N	0.311* .011 66	0.379** .002 66	0.678** .000 66	0.731** .000 66	1 66

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

* . Correlation is significant at the 0.05 level (2-tailed).

4.4.2 Regression Analysis

The results in table 4.12 represent the fitness of regression in elucidating the study phenomena. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (security of State Corporation assets) that is explained by all the four

independent variables (control environment, risk assessment, information communication, and monitoring activities). The four independent variables studied explain only 58.4% of security of State Corporations assets in Kenya. This therefore means that other factors not studied in this research contribute 41.6% of the State Corporations assets security.

Model Summary

Table 4.7: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.764 ^a	0.584	0.557	0.56606

4.4.3 Analysis of Variance

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

Table 4.13 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of asset security. This was supported by an F statistic of 21.446 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

ANOVA^a

Table 4.8 : Analysis of Variance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	27.487	4	6.872	21.446	0.000 ^b

Residual	19.546	61	0.320		
Total	47.033	65			

4.4.4 Regression Coefficients

Regression of coefficients results were as shown in table 4.14. As regards control environment, the results show that; $T=0.410$ and $p\text{-value}=0.684$ since $p>0.05$ at the $\alpha=0.05$ level of significant there exist enough evidence to conclude that control environment is greater than 0.05, hence, that appreciating the study conclusion that control environment is not useful as a predictor of security of assets.

Risk assessment was equally tested and from these results $T=-1.311$, $p\text{-value}=0.195$ since $p>0.05$ at $\alpha=0.05$ level of significance there exist enough evidence to conclude that Risk assessment is greater than 0.05, hence, that appreciating the study conclusion that Risk Assessment is not useful as a predictor of security of assets.

Information communication was tested and the results show that $T=2.630$ and $p\text{-value}=0.011$ since $p<0.05$ at 0.05 level of significance there exist enough evidence to conclude that Information Communication is less than 0.05, hence appreciating the study conclusion that Information Communication is useful as a predictor of security of assets.

Finally, Monitoring Activities result $T=4.099$, $p\text{-value}=0.000$ then at 0.05 level of significance there exist enough evidence to conclude that Monitoring Activities is not zero and hence, that Monitoring Activities are useful as a predictor of security of assets.

The multiple linear regression models are as shown below.

Coefficients

Table 4.9: Regression of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.425	0.577		0.737	0.464
Control Environment	0.066	0.162	0.037	0.410	0.684
Risk Assessment	-0.169	0.129	-0.141	-1.311	0.195
Information Communication	0.381	0.145	0.359	2.630	0.011
Monitoring Activities	0.518	0.126	0.524	4.099	0.000

From the data above the established regression equation was

$$Y=0.425+0.066x_1-0.169x_2 + 0.381x_3+0.518x_4$$

The model shows control environment as having a positive coefficient, which showed that they were directly proportional to security of assets. This mean that a unit increase in control environment increases the security of assets with 0.066units and a unit increase in risk assessment will decrease security of assets by 0.169. The results obtained in the table indicated that when all the variables are zero, that is control environment, risk assessment, information communication and monitoring activities are =0, security of assets will increase by unit 0.425

In conclusion, the inferential statistic showed that security of assets was explained by independent variables; control environment, risk assessment, information communication, and monitoring hence appreciating those internal controls were the predictors of asset security.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter gives reports on the summary of the findings, the conclusions and the recommendations. This is done with respect to the objectives of the study.

5.2 Summary of Findings

This section provides a summary of the findings from the analysis, done in line with the objectives of the study.

5.2.1 Control Environment

The first objective of the study was to establish the effect of control environment on security of State Corporation's assets in Kenya. The findings revealed that control environment has a positive but not significant effect on security of State Corporation's assets in Kenya. This is also supported by the statements where majority of the respondents were either neutral or disagreed.

The findings here are consistent with those of the study by Fleming, (2016) who found that public companies that have stronger control environments are more likely to have frauds that involve timing differences, tend to experience larger frauds, have frauds that involve a larger number of perpetrators, and are less likely to have frauds that are discovered by accident.

5.2.2 Risk Assessment

The second objective of the study was to establish the effect of risk assessment on security of State Corporations assets in Kenya. Results reveal that risk assessment has a negative but insignificant effect on security of State Corporation's assets in Kenya. This could be explained by the fact that if there are too many risk assessment activities, it might lead to lack of loyalty and encourage unethical behavior where employees and other stake holders become creative in trying to beat the system of asset security.

This study tend to differ with one by Arnold (2002) who explored the empirical trial of the features of risk assessment and management as part of internal controls of banks in India. The findings of the research state that risk assessment and management is an integral part of an effective internal control system.

However, his finding that the role of risk assessment was found to be influenced by the nature of industry in which the company works tends to reinforce our findings since his was on private banks in India and ours is on State Corporations in Kenya in public industry.

5.2.3 Information Communication

The third objective of the study was to establish the effect of information communication on security of State Corporation's assets in Kenya. The information communication has a significant and positive effect on security of State Corporation's assets in Kenya. This means that the timely movement of information and feedback across levels of the organization had a powerful impact on efforts to secure assets of State Corporations.

This study reinforces the findings by Fleming (2016) that information about an organization's plans, control environment, risks, control activities, and performance must be communicated to all players that make up and interact with the organization. Dependable and applicable 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 are useful.

5.2.4 Monitoring Activities

The forth and the last objective was to establish the effect of monitoring activities on security of State Corporation's assets in Kenya. The regression results revealed that monitoring activities has a positive and significant effect on security of State Corporation's assets in Kenya.

This study also agrees the one conducted by Abdullahi, (2016) whose main objective was to establish the role of internal control systems on the financial performance of Higher Learning Institution in Puntland. The study concluded that monitoring had helped in evaluating the quality of performance of the institution over time.

5.3 Conclusions

The study concludes that Control Environment, Information Communication and Monitoring Activities have positive significant relationships with security of assets. The internal control component with the highest effect on security of assets is Monitoring Activities and followed by Information Communication respectively. Risk Assessment has a negative impact on security of assets in State Corporations.

5.4 Policy Recommendation

This part of the study aims to make recommendations based on the research findings that will guide practitioners and contribute towards filling policy and research gaps.

This study suggests that State Corporations should have in place internal controls to ensure security of their assets.

To achieve optimal outcomes in security of State Corporation assets, management should pay more attention to Monitoring Activities and Information Communication given that they have a positive and significant impact on security of assets. These recommendations notwithstanding State Corporations must invest in other avenues and strategies to secure their assets as the study found that internal controls only contribute 58.2% of means of securing organizational assets.

5.5 Limitations of the Study

The study was limited to interviews on management of the State owned Corporations who are charged with implementation of the organizations strategies and could be most of them were too busy to bother with the questionnaire details.

The respondent's quality of answers could also suffer from a biased or central tendency criterion that seeks to give average answers to all questions.

The use of junior officers would have been more yielding in the collection of data. Since the information on audit is confidential in most organizations it was difficult to get more crucial information from most respondents.

State Corporations were lumped to include both commercial public entities and regulatory authorities who in some instances could be difficult to give similar interpretations.

5.6 Areas for further Studies

The study sought to find the effects of control environment, risk assessment, information communication and monitoring activities on security of State Corporation's assets in Kenya. This called for the analysis of state owned corporations only, thus area for further studies could consider private sectors for purposes of making a comparison of the findings with those of the current study.

It could also be more beneficial to have separate studies to look into the role of internal control systems on commercial State Corporations as well as regulatory State Corporations to see if the outcomes could benefit the public.

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APPENDIX 1 - STATE CORPORATIONS TARGETED FOR SAMPLING

1. National Transport and Safety Authority/NTSA
2. Kenya Meat Commission/KMC
3. East Africa Portland Cement Company/EAPCC
4. National Campaign Against Drug Abuse/NACADA
5. Kenya Electricity Generating Company/KENGEN
6. Geothermal Development Company/GDC
7. Kenya Urban Roads Authority/KURA
8. Kenya Rural Roads Authority/KeRRA
9. Kenya National Highways Authority/KENHA
10. Kenya Accountants and Secretaries National Examination Board/KASNEB
11. National Social Security Fund/NSSF
12. National Hospital Insurance Fund/NHIF
13. Tana-ATHI Water Services Board

14. Water Resources Management Authority/WARMA
15. WASREB
16. Kenya Roads Board/KRB
17. National Construction Authority/NCA
18. National Environmental Authority/NEMA
19. Kenya Wildlife Service/KWS
20. Kenya Forest Service/KFS
21. Kenya Plant Health Inspection Institute/KEPHIS
22. Agricultural Finance Corporation/AFC
23. Agricultural Development Corporation/ADC
24. Nyayo Tea Zones Authority/NTZA
25. Export Processing Zones Authority/EPZA
26. Kenya Power And Lighting Company/KPLC
27. Kenya Electricity Transmission Company/KETRACO
28. Kenya Seed Company
29. Kenya Forestry Research Institute/KEFRI
30. Kenya Agricultural Research Institute/KARI
31. Kenya National Examination Council/KNEC
32. Higher Education Loans Board/HELB
33. Energy Regulatory Commission/ERC
34. Kenya Medical Supplies Agency/KEMSA
35. Kenya Stadia Management Board
36. Kenya Water Towers/KWTA
37. National Museums of Kenya/NMK
38. NGO Coordination Board

APPENDIX 2: RESEARCH BUDGET

Research Assistants..... 40,000.00

Data collection costs

Questionnaires administration costs..... 40,000.00

Telephone and internets Charges..... 20,000.00

Report writing

Printing and stationery.....40,000.00

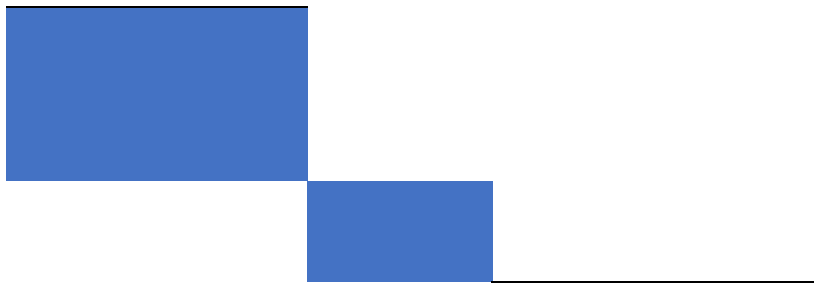
Total costs.....140,000.00

APPENDIX 3: SCHEDULE OF ACTIVITIES

Activity	July 2017	August2017	September2017	October 2017	October
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Proposal
development

Proposal



submission

Data

collection

Data entry

and

Analysis

Thesis

writing

Thesis

submission

and

examination

APPENDIX 4 – LETTER OF INTRODUCTION

Phillip S. Wuantai

P.O. Box 14983-00400

Nairobi-Kenya

Telephone: 0722-375-777

Email: pwsantamo@yahoo.com

13th September 2017

To whom it may concern,

RE: QUESTIONNAIRE - ROLE OF INTERNAL CONTROL SYSTEMS ON THE SECURITY
OF STATE CORPORATIONS' ASSETS IN KENYA

I am kindly requesting you to allow me collect data concerning your State Corporation about the above topic for my Masters in Business Administration (MBA) project in KCA University. Kindly take some time to respond to the attached questionnaire. The questionnaire will take you less than 10 minutes to complete. Taking part in the study is voluntary. The researcher is assuring you that your responses will be treated with utmost confidentiality and will be used solely for the purpose of this study.

It is hoped that by increasing understanding of the role of internal control systems that influence the security of State Corporations' assets will have far reaching implications for the Management, running and safety of State Corporations assets in Kenya. I will be grateful for your cooperation and assistance. I will appreciate if you can complete the questionnaire possibly within two days to enable me proceed to the next stage of the study.

Yours faithfully,

Phillip S Wuantai (16/01667)

Please indicate below:

1. I agree to participate in this study.
2. I do not agree to participate in this study.

Signature.....

APPENDIX 5: QUESTIONNAIRE

THE ROLE OF INTERNAL CONTROL SYSTEMS ON THE SECURITY OF STATE CORPORATIONS ASSETS IN KENYA

PART I: BACKGROUND INFORMATION

1. Please indicate your gender Male [] Female []
2. What is your age bracket: 18-26 years [] 27-35 years [] 34-44 years []
45-53 years [] 54-62 years [] 63 years and above []
3. What is your highest level of education: Diploma [] Bachelors' Degree []
Masters' Degree [] Doctorate [] other levels [] (Please specify).....

4. For how long have you worked for your current employer:
 1-5 years [] 6-10 years [] 11-15 years [] 16-20 years [] Over 20 years []
5. For how long have you worked in your current position:
 Less than one year [] 1-4 years [] 5-9 years [] 10+ years []
6. What level best describes your current position in your State Corporation: Top Level
 Management [] Middle Level Management [] Lower Level Management [] Other
 levels []
 (Please specify).....

PART II

SECTION 1: CONTROL ENVIRONMENT & SECURITY OF ASSESTS

State by ticking the appropriate box your level of agreement with the following statements on scale of 1 to 5 where 1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5=Strongly Agree

Levels of asset security played by a good control environment		Level of Agreement				
No.	Statement	1	2	3	4	5
CE1	Management commitment to integrity behavior assist in safeguarding the corporation assets					
CE2	Board commitment to ethical behavior assist in safeguarding the corporation assets					
CE3	Strict adherence on the code of conduct by all staff safeguards assets of the corporation					
CE4	Management’s philosophy and operating style advances the safeguarding of company assets					
CE5	Board’s operating philosophy advances the security of corporation’s assets					
CE6	The way management assigns authority enhances asset security in the corporation					
CE7	The way management assigns responsibility advances the corporation’s assets security					
CE8	The way management develops its people inculcates the culture of assets security					
CE9	The way board pays attention to the direction taken by organization in performance helps in safeguarding assets					

SECTION 2: RISK ASSESSMENT AND SECURITY OF ASSETS

State the level to which you agree or disagree with the statements below on a scale of 1 to 5 where 1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5=Strongly Agree

Levels of asset security played by an effective risk assessment		Level of Agreement				
No.	Statement	1	2	3	4	5
RA1	The company undertakes inclusive risk identification across all departments facing its assets					
RA2	The company undertakes comprehensive risk identification in all its departments facing assets					
RA3	That the entity incorporates in-depth risk evaluation faced by its assets					
RA4	That the company ranks all risks identified facing its assets					
RA5	That the company classifies its risk management strategies for its assets that include risk retention, transfer, spread, avoidance.					
RA6	That the company uses risk transfer such as insurance of its assets as an integral management strategy for its assets					
RA7	That the company keeps an updated register of risks facing all its assets and reviews it periodically					
RA8	That the corporation sets a requirement for review of its risks periodically					

SECTION 3: INFORMATION COMMUNICATION AND SECURITY OF ASSETS

State the level to which you agree or disagree with the statements below on a scale of 1 to 5 where 1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5=Strongly Agree

Levels of asset security based on effective information communication		Level of Agreement				
No.	Statement	1	2	3	4	5
IC1	That members of staff are required to declare any conflict of interest they have during disposal of company assets					
IC3	That penalties are well spelt out on abuse of company assets by its personnel in custody					
IC4	Negligence in protecting assets under an employee custody has punishment spelt out					
IC5	That there is a reward scheme such as promotion for those who					

	excel in safeguarding the entity's assets.					
IC6	That the entity ensures that its staff must understand their own role in the internal control system of asset security					
IC7	That it's clearly spelt out on how shared assets are protected					
IC9	That there exists a means of communicating significant information that threatens the safety of assets of the company					

SECTION 4: MONITORING ACTIVITIES AND SECURITY OF ASSETS

State the level to which you agree or disagree with the statements below on a scale of 1 to 5 where 1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5=Strongly Agree

Levels of asset security played by effective monitoring		Level of Agreement				
No.	Statement	1	2	3	4	5
MA1	That the company has ongoing monitoring to ensure good cash management					
MA2	That the company has separate evaluation on value for money on assets bought					
MA3	Regular supervisory activities are performed to monitor movable assets e.g. vehicles assets and ensure safety and good use					
MA4	That internal auditors inspect periodically existence of recorded company assets					
MA5	That internal control deficiencies on immovable assets such as company land are promptly reported upstream					
MA6	That serious matters on control failures that threaten asset security should be escalated to the Board					
MA7	That periodically the board engages the services of an independent evaluator to give a professional opinion on the safety of the corporation's assets					
MA8	That periodically management engages the services of an external evaluator to value the entities assets					

SECTION 5: SECURITY OF ASSETS

State the level to which you agree or disagree with the statements below on a scale of 1 to 5 where 1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5=Strongly Agree

Levels of asset security in your organization		Level of Agreement				
No.	Statement	1	2	3	4	5

AS1	Whether in your opinion the assets of your organization are secure					
AS2	Whether incidences of malpractices if any threaten the organizations assets security					
AS3	Whether theft of organizations assets is a frequent occurrence in your company					
AS4	That the organization maintains an effective internal control that provides reasonable assurance that the entity follows state regulations required for asset security					
AS5	The organization takes prompt action when instances of noncompliance to regulations are identified					
AS6	That the inventories of your company are properly stored and recorded.					
AS7	That noncompliance to audit findings on assets security is seriously addressed by the board in a firm manner					