

**THE EFFECT OF INTERNAL CONTROLS ON THE PERFORMANCE OF WATER
COMPANIES IN KENYA**

BY

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DECLARATION

I hereby declare that this research project is my original work and it has not been presented in any University or Institution for an award of a degree and that all the references cited in this study have been fully acknowledged.

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

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DEDICATION

I would like to dedicate this work to God. Only with Him are all things possible. And to my family, thank you for your solid support during this entire period.

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LIST OF ABBREVIATIONS

APC	Auditing Practices Committee
WSB	Water Service Board
NCC	Nairobi City County
NCWSC	Nairobi City Water and Sewerage Company
SPSS	Statistical Package for Social Sciences
TWSB	Tanathi Water Service Board
UNES	University of Nairobi Enterprises

ABSTRACT

An entity should put in place its own system of controls in order to achieve its objectives. A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and eventually leading to losses. Recent incidence of corporate failures and accounting frauds are mostly preceded by failure in companies' internal control structures. The water sector is facing an increasingly challenging future in terms of separation of supervision from regulation and policy making, separation of management of water resources from water supply and sanitation provision, decentralization, participation, autonomy, accountability, financial and ecological sustainability and efficiency. This study adapted a descriptive research design to allow the establishment of an understanding of internal controls and financial performance. The target population for this study was the 65 water companies in Kenya. The source of data was both primary and secondary data. The main instrument for data collection was a semi-structured questionnaire. Data was analyzed using Statistical Package for Social Sciences (SPSS Version 20.0) program. Both quantitative analysis and regression analysis was used as data analysis technique. The findings indicates that there is a well elaborate Organization Structure in the Company which adequately reflect chain of command and specific lines of authority and responsibility have been established to ensure compliance with the policies and procedures in the company practices on control environment. Findings indicates that variances between actual and projected financial performance is explained by management on a timely basis hence strong company practices on control activities. Findings indicates that most respondents agreed that the Company carry out internal audits and external audits on timely basis. Findings indicates that the majority of respondents agreed that Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented. Findings indicate that majority of the respondents were in agreement that periodically, management carries out reviews of internal control systems are in place. Findings indicate that the Performance, Control Environment, Control Activities, Risk Assessment, Information and communication systems and Monitoring has a great effect on the performance of water companies in Kenya. The study found out that the more effective the control environment, the higher the higher the performance level of water companies. The findings indicates that there is a strong relationship between internal controls and the performance of water companies in Kenya having R square of 0.876. The study found out that when the level of internal controls to use water companies is known, it becomes easy to predict their performance

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

An entity should put in place its own system of controls in order to achieve its objectives (Mwindi, 2008). A system of effective internal controls is a critical component of company management and a foundation for the safe and sound operation of organizations. However, ineffective internal controls result in ineffective programs and eventually leading to losses (Olumbe, 2012). Recent incidence of corporate failures and accounting frauds are mostly preceded by failure in companies' internal control structures (Anyanzwa, 2013).

The water sector is facing an increasingly challenging future in terms of separation of supervision from regulation and policy making, separation of management of water resources from water supply and sanitation provision, decentralization, participation, autonomy, accountability, financial and ecological sustainability and efficiency. The key is acknowledgement that "business as usual" is a mindset of the past and that the future will require a new approach to the management of water companies. Utilities must take a holistic approach that accounts for the ecosystem services affecting water use and delivery. Those companies that consider all of the technological, financial, physical and regulatory practices that affect water resources will be more successful at providing sustainable and economical water services thus enhancing their performance. Implementation of strong internal controls helps position water companies for future success. The companies will develop; design and institute structures, processes and systems not primarily based on rational economic cost-benefit analysis, but because they are more or less required incorporating new practices and procedures. By doing so, they will mitigate agency problems and increase assurance to all the stakeholders.

Improved access to water supply and appropriate sanitation is fundamental to the elimination of poverty yet, access to water for most poor groups remains very poor in Kenya. Although financing mechanisms have improved and the sector has attracted funding, from both the local private sector and the external support agencies, there is a lot to be done to improve water service delivery in Kenya, so that the un-served and marginalized groups can realize the human right to water. Strategies required include mechanisms for improving participation, efficiency, transparency, accountability mechanisms at individual, household, community, institutional, organizational levels. This calls for well-defined system of internal controls. Internal control system entails the upholding of the policies, strategies and legislation where water service providers have to develop and manage water resources in an efficient and effective manner while being accountable to the recipients of the services. With this focus on transparency, participation and accountability, this study will provide a valuable contribution to addressing challenges facing the performance of water companies. In this respect, the study will explore the linkages between different levels of controls and seek to raise levels of accountability by identifying the controls put in place, the weakness in the controls and what has to be improved in them to improve integrity and help improve the performance of water companies

1.1.1. Internal Controls

According to Hamed (2009), Internal Control System refers to an organized amalgamation of functions and procedures, within a complete system of controls established by the management and whose purpose is the successful function of the business. Internal Controls are the methods and procedures followed by the management in order to ensure, to a great extent, as much successful cooperation as possible with the director of the company, the insurance of the capital, the prevention and the detection of fraud, as well as the early preparation of all the useful financial

information .(Keitany, 2000). Hongming and Yanan (2012), adds that Internal Control System resembles the human nervous system which is spread throughout the business carrying orders and reactions to and from the management. It is directly linked to the organizational structure and the general rules of the business.

Whittington (2001), outlined that a system of internal control extends beyond those matters which relate directly to the functions of accounting and the financial statements. In addition, he notes that internal control is a systematic procedure which will lead to evaluate the degree of correlation between those established criteria and the real results of the organization. Internal Control, as defined from the APC (Auditing Practices Committee, 1980), is an independent examination and certification from an inspector appointed by the organization to control the finances according to the legal framework established each time. From the forgoing therefore, the objective purpose of Internal Control is on one hand, the allowance of specific and high level of services offered towards the management, and on the other hand, the allowance of assistance towards the members of the organization for the most effective practicing of their duties. Internal Controls are being implemented in businesses as tools that add up value to the organization. In this way, we can achieve a systematic approach towards the most effective operation of the organization, as a unity (Schleifer and Greenwalt, 1996).

Internal controls are measures that organizations institute with the aim of ensuring that the objectives, goals, and mission of the organization are met (Rezaee, 2002). They refer to set of organizational policies and procedures that ensure any transaction is processed in the appropriate way to avoid waste, theft and misuse of organization resources. Through internal controls,

organizations achieve performance and organizational goals, prevent loss of resources, enable production of reliable reports and ensure compliance with laws and regulations. Thus internal control is established by the organizational management to ensure that the business of enterprise is carried out in an orderly and efficient manner. This further ensures adherence to management policies safeguard the assets and secure the completeness and accuracy of the records. Organizations are constantly and extensively working to improve their internal control systems so as to increase revenue inflow, survive in the rapidly changing economic and competitive environments, and adapt to the shifting customer demands and priorities (Kantzos and Chondraki, 2006).

Internal control consists of five interrelated components which are derived from the way management runs a business, and are integrated with the management process: control environment; risk assessment; control activities; information and communication; and monitoring (Carmichael, 1996). According to Liu (2005) and Rittenberg et al. (2005), under the current operations of organizations in general, the importance of internal control can be divided into six major categories; detecting error and fraudulence, decreasing illegal conduct, improving the competence of the business entity, improving the quality of data, helping to create the business infrastructure, and decreasing auditors' fee.

1.1.2. Concept of Performance

In the words of Kohlar (2008) "Performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's

success, conditions, and compliance. Mawanda (2008), performance refers to the ability to operate efficiently, profitability, survive, grow and react to the environmental opportunities and threats. They assert that, performance is measured by how efficient the enterprise is in use of resources in achieving its objectives. It is the measure of attainment achieved by an individual, team, organization or process. Hitt, et al (1996) believes that many firms' low performance is the result of poorly performing assets (businesses). Low performance from poorly performing assets is often related to strategic errors made in the acquisition process in earlier years. Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). It involves the ability of an organization to fulfill its mission through sound management, strong governance and a persistent rededication to achieving results (John & Morris, 2011). Performance measures can be financial or non-financial. Both measures are used for competitive firms in the dynamic business environment (Jenning et al., 2008).

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial performance is a subjective measure of the accountability of an entity for the results of its policies, operations and activities quantified for an identified period in financial terms. In the public sector the nature of financial performance is a function of what the public sector entity is held accountable for accomplishing in financial terms in the identified period. Multiple

perspectives of financial performance considered together provide a comprehensive picture of a public sector entity's achievement in relation to the multiple accountabilities expected of it.

Although measuring financial performance is considered a simpler task, it also has its specific complications. There is little consensus about which measurement instrument to apply. Many researchers use market measures (Alexander et al, 1975), others put forth accounting measures (Waddock et al,1984) and some adopt both of these (McGuire et al,1988). The two measures, which represent different perspectives of how to evaluate a firm's financial performance, have different theoretical implications (Hillman and Keim, 2001) and each is subject to particular biases (McGuire et al, 1986). The use of different measures, needless to say, complicates the comparison of the results of different studies. This study will focus on both financial and non-financial measures

1.1.3. Internal Controls and Performance

Internal controls are intended primarily to enhance the reliability of financial performance, either directly or indirectly by increasing accountability among information providers in an organization (Jensen, 2003). Internal controls provide an independent appraisal of the quality of managerial performance in carrying out assigned responsibilities for performance (Beeler et al, 1999). Fadzil et al (2005) said that an effective internal control system unequivocally correlates with organizational success in meeting its performance target level. Internal control keeps an organization on course toward its objectives and the achievement of its mission. They promote effectiveness and efficiency of operations, reduces the risk of asset loss, and helps to ensure compliance with laws and regulations. Internal control also ensures the reliability of financial

reporting (i.e., all transactions are recorded and that all recorded transactions are real, properly valued, recorded on a timely basis, properly classified, and correctly summarized and posted).

An Organization with effective system of internal control is expected to achieve its objective efficiently and effectively. From the above analysis on the importance of internal control, it could be concluded that, the overall purpose of the concept is to help an organization achieve its mission, promote orderly, economical, efficient and effective operations and produce quality products and services consistent with the organization's mission, safeguard resources against loss due to waste, abuse, mismanagement, errors and fraud. It also promotes adherence to laws, regulations, contracts and management directives as well as develop and maintain reliable financial and management data, and accurately present that data in timely reports. All the above functions of internal controls impact on the performance of the company.

1.1.4. Water Companies in Kenya

These are water service providers in Kenya. They are incorporated under the Companies Act cap 486. They are wholly owned subsidiaries of the county governments under which they fall. Their operations are governed by the Water Act, 2002 and also operate under a regulator board. The water companies operate under the various Water Service Boards under which they are clustered. Their overall objective is to provide clean water and sewerage services to the residents in their areas of jurisdiction in a financially sustainable manner and within the government regulations.

To achieve the above objective, the management of the companies must adopt measures to ensure that available resources are prudently used to obtain value for money from resources allocated to them. Management in turn should generate operational data with which they evaluate the efficiency and effectiveness of their operation. It is fundamental aspect of management stewardship

responsibility to provide interested parties with reasonable assurance that their organization is effectively controlled and that the information they receive are accurate and dependable. Developing a strong internal controls will help them achieve their objective.

1.2. Problem Statement

Groom et al,(2006),Water sector organizations should demonstrate a level of financial prudence that seeks to strike a balance between present-day operating expenses and revenues, community expectations and demands, condition of assets/infrastructure and long-term debt obligations in order to sustain well-being and quality of service both now and in the years to come. However this has not been the case with water companies in the Nairobi metropolitan area since they have not been performing financially and non-financially well. This has been characterized by endless complaints from customers, low capital funding, low profits reported, liquidity problems. The water companies are also experiencing legislation problems since the Act, that governed them previously has not been revised to suit their current operational environment. This may be because internal controls do not exist or are weak or are undermined by the employees.

The incidence of internal control weaknesses, unsatisfactory and deteriorating service delivery have the undesired effect of not only weakening the company's ability to effectively deliver services but also encourages collusion, fraud, embezzlements, loss of cash (revenue), assets conversion genuine and deliberate mistakes, corruption, lack of transparency and accountability for revenue collection and other assets The management of a company should familiarize themselves with internal control procedures that will ensure effective service delivery and the desired financial performance (Efozie,2010)

Slanislav (2006) highlighted that the heightened interest in internal controls is, in part, as a result of significant losses incurred by several organizations. He explained that, an analysis of the problems related to losses indicated that they could probably have been avoided had the organizations maintained effective internal control systems. Such systems would have prevented or enabled earlier detection of problems that led to losses in the banking industry, thereby limiting damage to the organization. This same idea is reflected in Kaplan (2007), that, poor standards of corporate governance had led to insufficient controls being in place to prevent wrong doing in the United States in the 1990s, as demonstrated by the collapse of Enron and WorldCom.

Muio (2012) studied the impact of internal control systems on the financial performance of private hospitals in Nairobi and established a significant relationship between internal control system and financial performance. Njui (2012) investigated the effectiveness of internal control and audit in promoting good governance in the public sector in Kenya and found that internal control has the greatest effect on corporate governance within Kenya government ministries followed by risk management while compliance and consulting had the least . Ndungu (2013) studied the effect of internal controls on revenue generation in University Of Nairobi Enterprises and Services limited (UNES) and concluded that systems of internal control should be functioning as per the intended plans to help in enhancing efficiency and accurate data capturing. This will go in a long way in ensuring that revenue collection targets are attained. Musya (2014) studied the effects of internal controls on revenue collection of county governments in Kenya and established that there is a significant effect between internal controls and revenue collection in county governments in Kenya.

However, from all the previous studies, none has been done on the internal controls of water companies in Kenya. Thus, this study aimed at establishing the relationship between internal controls and the performance of water companies in Kenya.

1.3. Research Objectives

The objective of the study was to establish the relationship between internal controls and the performance of water companies in Kenya.

1.4. Value of the study

The results of the study will help the management of the water companies identify gaps within the systems of internal control in their companies. It will also benefit the management and those charged with the financial management of the company resources since they will appreciate the internal controls and come up with ways on how to streamline the systems of internal controls thus ensuring improved performance and attainment of the company objectives. It will also help policy makers in setting policies that are relevant to the company's performance and make the necessary adjustments to the already existing ones to ensure better enforcement of standards.

Researchers and Scholars will get to know the extent at which internal controls affect financial performance of water companies since the study will add to the existing body of knowledge regarding internal controls and will therefore use the findings herein as reference to other studies and further research. The company stakeholders, who consists of the both the national and county governments, the Water service boards and all the people involved directly or indirectly with the company, will be able to understand the role of internal controls in ensuring that water companies are able to account properly for the resources allocated to them.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter presents a broader context of the study subject in terms of past scholarly works and what other authors have written about internal controls and performance. This section reviews the internal control framework by particularly focusing on the control environment, the entity's risk assessment process, the information and communication systems, control activities and the monitoring of controls as the main components of internal control. The review also examines the theories surrounding systems of internal control.

2.2. Theoretical Literature Review

Various theories have been formulated on internal controls and performance. They include Agency theory, Institutional theory and Stakeholders theory as discussed below;

2.2.1. The Agency Theory

The first scholars to propose, explicitly, that a theory of agency be created, and to actually begin its creation, were Stephen Ross and Barry Mitnick, independently and roughly concurrently. Ross is responsible for the origin of the economic theory of agency, and Mitnick for the institutional theory of agency, though the basic concepts underlying these approaches are similar. Indeed, the approaches can be seen as complementary in their uses of similar concepts under different assumptions. (Ross, 1972), Outlined agency as a universal principle and not just a theory of the firm. Even so, the rather brief paper limited its scope to the problem of incentive and laid out a model for inducing the agent to produce maximum gains for the principal. In short, Ross

introduced the study of agency in terms of problems of compensation contracting; agency was seen, in essence, as an incentives problem. (Mitnik, 1973), Laid out a much more general theory of agency with possible application to numerous societal contexts. Mitnick introduced the now common insight that institutions form around agency, and evolve to deal with agency, in response to the essential imperfection of agency relationships: Behavior never occurs as it is preferred by the principal because it does not pay to make it perfect. But society creates institutions that attend to these imperfections, managing or buffering them, adapting to them, or becoming chronically distorted by them.

According to the agency theory, a firm consists of a nexus of contracts between the owners of economic resources (the principals) and managers (the agents) who are charged with using and controlling those resources (Jensen and Meckling, 1976). The theory posits that agents have more information than principals and that this information asymmetry adversely affects the principals' ability to monitor whether or not their interests are being properly served by 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 (Jensen and Meckling, 1976). According to the theory, in order to harmonize the interests of the agent and the principal, a comprehensive contract is 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 (Jussi and Petri, 2004).

Further the theory recognizes that any incomplete information about the relationship, interests or work performance of the agent described could be adverse and a moral hazard. Moral hazard and adverse selection impact on the output of the agent in two ways; not possessing the requisite knowledge about what should be done and not doing exactly what the agent is appointed to do.

The agency theory therefore works on the assumption that principals and agents act rationally and use contracting to maximize their wealth (Jensen and Meckling, 1976). This theory is applicable to this study simply because internal control is one of many mechanisms used in business to address the agency problem by reducing agency costs that affects the overall performance of the relationship as well as the benefits of the principal (Payne, 2003; AbdelKhalik, 1993). Internal control enhances the provision of additional information to the principal (shareholder) about the behavior of the agent (management) reduces information asymmetry and lowers investor risk.

2.2.2. Institutional Theory

Institutional theory, offers a contrasting explanation that may be used to understand the adoption and design of control practices within organizations. This theory, more sociological in character, originates from work done by Meyer and Rowan (1977) and DiMaggio and Powell (1983). It has been said that institutional theory is becoming an important theoretical perspective in accounting and organization theory research (Dillard, Rigsby, & Goodman, 2004, p. 507). According to this theory, organizations develop and design structures, processes and systems not primarily based on rational economic cost-benefit analysis, but because they are more or less required to incorporate new practices and procedures. According to Meyer and Rowan (1977) this means that: Organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures.

Organizational structures, including the various internal control functions, roles, processes and systems, become symbolic displays of conformity and social accountability. Organizations with

the appropriate structures in place avoid in-depth investigations of their business operations. Meyer and Rowan, building on the work by Bergerand Luckmann (1966), pointed the importance of institutionalized rules. These are classifications built into society and may be taken for granted or supported by public opinion or even the force of law. These rules involve normative obligations which may be viewed as facts of (organizational) life which must be taken into account and considered by actors in the business community – whether they are risk management officers, compliance officers, managers, auditors, directors or other types of professionals within and outside of firms. The process of institutionalization is then how social processes of different kinds come to take on a rule-like status in everyday society. Repeated patterns of actions become institutions, or institutionalized rules, and thus institutional theory explains organizational phenomena by pointing to the environment and the formal and informal rules that are imposed on organizational activities

2.2.3. Stakeholders Theory

The traditional definition of a stakeholder is “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Freeman 1984). The general idea of the Stakeholder concept is a redefinition of the organization. In general the concept is about what the organization should be and how it should be conceptualized. Friedman (2006) states that the organization itself should be thought of as grouping of stakeholders and the purpose of the organization should be to manage their interests, needs and viewpoints. This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and the participation in decision making.

A stakeholder approach is very much concerned about active management of the business environment, relationships and the promotion of shared interests in order to develop business strategies Friedman& Miles(2001).Stakeholder interests could encompass a broad range of issues, such as labour conditions, environmental issues or social responsibility, some of which might be contrary to a firm's interests Friedman& Miles (2006).This touches on Frooman's (1999) suggestion that stakeholder management could be seen as managing potential conflict stemming from diverging interests. In a related debate on corporate responsibility and citizenship, Waddock (2001) argues that becoming a good corporate citizen means defining, and achieving, responsible operating practices fully integrated into the entire corporate strategy, planning, management, and decision making processes.

2.3. Determinants of Internal Control System

Internal control consists of five interrelated components. These are derived from the way management runs a company and are integrated with the management process. Although the components apply to all entities, small and mid-size companies may implement them differently than large ones. Its controls may be less formal and less structured, yet a small company can still have effective internal control.

2.3.1. Control Environment

In internal control, the control environment sets the tone of the organization by influencing the control consciousness of its people (Whittington and Pany, 2001). Control environment is the foundation for all the other components of internal control. It comprises of factors like; integrity and ethical values of personnel tasked with creating, administering, and monitoring the controls, commitment and competence of persons performing assigned duties, board of directors or audit

committees, management philosophy and operating style, and organizational structure. Many factors go into control environment but this component is highly influenced by the effectiveness of the board of directors, the management, and the audit division of the organization. Internal auditors are essential to effective control environment since the effectiveness of these factors largely depends on their interaction with the internal and external auditor. Control environment sets the tone of an organization, influencing the control consciousness of its people (Aldridge and Colbert, 1994). In addition, control environment is influenced by the history and the culture of organization and has an insidious influence on the way organization activities are structured. It thus sets a positive and supportive attitude toward internal control and conscientious management.

2.3.2. Risk Assessment

Risk assessment is the process used by an organization (management) to decide how it will deal with the risks that pose a threat to achieving its objectives (Maitin, 2010). It entails the identification and prioritization of objectives, the identification of risks and assessment of their likelihood and impact. Consequently Menon & Williams (2010) looks at risk assessment as the identification, evaluation and management of risks. He further notes that risks can relate, to financial statement fraud or to the misappropriation of assets. This is the identification and analysis of relevant risks to the achievement of objectives, forming a basis for how the risks should be managed.

According to Menon & Williams (2010) this component of internal control highlights the importance of management carefully identifying and evaluating factors that can preclude it from achieving its mission. Risk assessment is the identification and analysis of their relevant risks to achievement of the objective, forming a basis for determining how the risks should be managed.

Because economic, industry, regulatory and operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with change Crerar, (2007). Risk assessment is a systematic process for integrating professional judgment about probable adverse conditions and events, and assessing the likelihood of possible losses (financial and non-financial) resulting from their occurrence Morris (2011). The second internal control standard addresses risk assessment. Internal control should provide for an assessment of the risk the agency faces from both internal and external sources. Once risks have been identified, they should be analyzed for their possible effect

2.3.3. Information and Communication System

According to Aldridge and Colbert (1994), internal control requires that all pertinent information be identified, captured, and communicated in a form and time frame that enable people to carry out their financial reporting responsibilities. Firms should adopt internal control and information systems that produce operational, financial and compliance-related information reports to make it possible to run and control the business. Effective communications should occur in a broad sense with information flowing down, across, and up within all the sections of the organization (Theofanis et al., 2011). Recent literature on internal control system frameworks has raised some concerns on information and communication as one of the internal control system components because of their importance in influencing the working relationship within the organization at all levels (Amudo and Inanga, 2009). Hence, such information must be communicated throughout the entire organization in order to permit personnel to carry out their responsibilities with regard to objective achievement.

2.3.4. Control Activities

Control activities refer to policies, procedures, and mechanisms put in place to ensure directives of the management are properly carried out Aikins (2011); Rezaee et al., (2001). Appropriate and accurate documentation of policies and procedural guidelines helps to determine how the control activities are to be executed. It also provides adequate information for auditors' examination of the overall adequacy of control design over financial management practices Aikins (2011). This control activities ensure that all necessary actions should be taken with the aim to address risks so that organizational objectives are achieved. According to Rezaee et al. (2001), internal control activities occur throughout the organization. They include a range of activities like; approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of asset and segregation of duties. Most of them are made possible through the help of the internal audit function.

2.3.5. Monitoring

Monitoring is used to evaluate the quality of enterprise internal control performance by tracking and monitoring the internal control frame, operational status and take the necessary actions to ensure that internal control can operate effectively. Monitoring can be divided into continuous monitoring and individual assessment. Continuous monitoring activities usually are that the management department and each staff at various levels inspect, analyze and evaluate the effectiveness and efficiency of production and operating activities of their respective departments during execution of the internal control system. It is a kind of self-control mode. The higher the level is, the less individual evaluation need. Individual assessment is to evaluate the internal

control system regularly and is usually done by the relatively independent internal audit department.

2.4. Review of Empirical Studies

A study carried out by Aikins in the United States (2008) on examination of government internal audits' role in improving financial performance intended to examine how the work of government internal audits lead to improvements in government financial performance. Although internal audit is one area with the expertise to assess efficient utilization of financial resources and help improve oversight and financial performance, public administration research has paid little attention to the role of internal audit in the financial management process. Puttick (2001) has asserted internal controls as a set of organizational policies and approved internal processes (internal controls) crafted by management of an organization to ostensibly achieve management's primary objective of ensuring that the business operates flawlessly. He further explained that a business is said to be running smoothly if they are able to stick to the management policies, to protect the organization assets, set up a system that would stop and eradicate manipulation of the accounting information.

(Doyle et al. 2007), Carried a study on determinants of weaknesses in internal control over financial reporting. In this paper they examined the determinants of material weaknesses in internal control over financial reporting. They used a sample of companies that disclosed material weaknesses in internal control over financial reporting. They found out that material weaknesses in internal control are more likely for firms that are smaller, less profitable, more complex, growing rapidly, or undergoing restructuring. The findings were consistent with firms struggling with their financial reporting controls in the face of a lack of resources, complex accounting issues, and a

rapidly changing business environment. They also documented that these determinants vary in strength depending on the type of material weakness disclosed.

(Ge and McVay, 2005), Carried out a study on the disclosure of material weaknesses in Internal Controls. They found out that, poor internal control is usually related to an insufficient allocation of resources for accounting controls such as lack of accounting personnel. More specifically, material weakness in internal controls tend to be attributed by management to lack of training and deficiencies in the period end reporting process and accounting policies. (Okuda et al.2013), Studied the determinants of Internal Controls System and Audit Quality in Japan. The study investigated the determinants of internal controls system and audit quality. It established that, first, as for the effect of internal controls, the firms which should set up the good internal controls and risky firms have a negative attitude for the good internal controls. The firms likely consider the negatives more than merits for establishing good internal controls. However, the firms which have a great growth and should need to have a good internal control do not always have a negative attitude, rather they evaluate the internal control positively. This suggests that they have a good internal control by employing the pressure outside. Second, the stronger pressure from outside creditors the firms have the more likely the firms should set up internal controls.

Ewa and Udoayang (2012) carried out a study to establish the impact of internal control design on banks' ability to investigate staff fraud and staff life style and fraud detection in Nigeria. The study found out that Internal control design influences staff attitude towards fraud such that a strong internal control mechanism is deterrence to staff fraud while a weak one exposes the system to fraud and creates opportunity for staff to commit fraud. The study concluded that effective and efficient internal control system is necessary to stem the malaise in the banking sector. Mawanda (2008) conducted a research on effects of internal control systems on financial performance in

institution of higher learning Uganda. In his study he investigated and sought to establish the relationship between internal control systems and financial performance in an Institution of higher learning in Uganda. Internal controls were looked at from the perspective of Control Environment, Internal Audit and Control Activities whereas Financial performance focused on Liquidity, Accountability and Reporting as the measures of Financial performance. The study established a significant relationship between internal control system and financial performance and therefore acknowledged the role of internal audit department in establishing internal controls which have an effect on the financial performance of organizations.

A study conducted by Onyango (2014) on impact of internal control system on the performance of County governments in Kenya, clearly indicated that county governments face quite a number of challenges during internal controls in performance like; financial reports are not made timely, frauds and misuse of institutional resources. Musya (2014) carried out a study on the effect of internal controls on revenue collection by county governments in Kenya. This study sought to examine the part played by internal control system in the collection of revenue by county governments in Kenya. The research targeted the 47 counties in gathering data for the study. The study concluded that internal controls affects revenue collection in County governments.

A study conducted by Mwachiro (2013) on the effects of internal controls on revenue collection, investigated the internal controls in operation at Kenya Revenue Authority with a view to establish whether such internal controls have produced any meaningful results in increased collected revenue. The study revealed that the five components of control environment, risk assessment, control activities, information and communication and monitoring must be available for internal controls to work. The study established that weak internal controls have encouraged collusion to fraud, loss of revenue and embezzlement of collected revenue. The study therefore concluded that

there is a significant effect between internal controls and revenue collection in Kenya Revenue Authority.

2.5. Summary of Literature Review

The theoretical review covers three theories that relate to internal controls. The empirical literature reviews works that have been done that relate to internal controls. The direct studies done on the effect of internal controls to various aspects of an organization have given rise to different results as discussed. No empirical study has however focused on the performance of water companies in Kenya. A gap thus arises in the literature about the effect of internal controls on the performance of water companies. These two variables have not been studied together in the Kenyan context and this study hopes to fill that gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design and methodology that was used to carry out the research. It is a detailed explanation of the procedures and techniques that were used while collecting, processing and analyzing data. This section of the study therefore describes the research design, the study population, sampling design, data collection procedures, and data analysis technique put in place.

3.2 Research Design

Research design refers to both structure of the research problem – the framework, organization or configuration of the relationships among variables of a study and the plan of investigation used to obtain the empirical evidence on those relationships (Cooper and Schindler, 2010). This study adapted a descriptive research design to allow the establishment of an understanding of internal controls and financial performance. It described the relationship between financial performance and internal controls, with internal controls being assumed to be a causal factor of performance

3.3 Target Population

The population of the study has been defined as a complete set of individuals, cases or objects with some common observable characteristics (Mugenda and Mugenda, 2003). The population should fit a certain specification, which the researcher is studying. The population therefore is seen as the

large group for which a researcher can draw a representative sample for the case of collecting information relevant to the study being conducted. Therefore, the target population for this study was the 65 water companies in Kenya.

3.4 Sample Design

It is important to select a representative sample through making a sampling frame. From the population frame the required number of subjects, respondents, elements or firms is to be selected in order to make a sample. Kothari (2004) recommends that a sample of 10% to 30% of the target population is a sufficient representation of the population.

3.5 Data Collection

Data was collected using primary and secondary data collection techniques. Primary data was gathered basically through closed-ended structured questionnaires and also through interviews. The main instrument of data collection will be the questionnaire.

Secondary data was gathered from library materials, the company reports, media publications and various Internet search engines covering the business process management of water companies in Kenya. The secondary data will also involve the use of office circulars, strategic plans, files and manuals and other relevant documents

3.6 Data Analysis

Data was analyzed using Statistical Package for Social Sciences (SPSS Version 20.0) program. Both quantitative analysis and regression analysis was used as data analysis technique. The data collected was run through a model so as to clearly bring out the effect of internal controls on

performance of water companies in Kenya. A multivariate regression model was used to determine the relationship between the independent variables and the dependent variable.

The regression equation is: $P = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$

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

P- Performance of water companies in Kenya (Measured by the Efficiency of the water companies)

X1- Control Environment

X2- Risk Assessment

X3- Information and Communication

X4 - Control Activities

X5 – Monitoring

ε = Error term

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data analysis, results and discussion of the findings on the relationship between internal controls and the performance of water companies in Kenya. The chapter concludes with a summary and interpretation of the findings.

4.2 Response rate

The research sampled 40 water services providers in Kenya. Table 4.1 shows that out of the 40 questionnaires distributed, 30 questionnaires were received back completely filled, giving a response rate of 75%. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting.

Table 4.1: Response rate

	Frequency	Percentage
Returned	30	75
Unreturned	10	25
Total	40	100

4.3 Respondents' Years of Existence

The study sought and obtained details about the Respondents' Years of Existence of the respondents in the company for purposes of understanding their role in the variables of study. The results are show in the table 4.2 below.

Table 4.2: Respondents' Years of Existence

	Frequency	Percent
Less than 6 months	4	13
6 months-1 year	4	13
1-2 years	4	13
2-3 years	2	6
3-4 years	1	3
More than 4 years	15	52
Total	30	100

From the table, 52% of the respondents indicated that they have been in service for more than 4 years, 39% have been in service between less than 6 months and 2 years, 6% indicated that they have been in service between 2 to 3 years while 3% have been in service for 3 to 4 years. Findings indicated that the highest number of respondents have been in service for more than 4 years.

4.4 Company Practices on Environmental Control

The study sought and obtained details about the Company Practices on Environmental Control.

The results are represented in table below.

Table 4.3: Company Practices on Environmental Control

	Mean	Std. Deviation
The water company has a good Accounting and Financial Management System in place	3.76	0.894
There is a well elaborate Organization Structure in the Company which adequately reflect chain of command	4.06	0.424
There are formalized policies and procedures for all major operations of the entity.	4.30	0.763
Specific lines of authority and responsibility have been established to ensure compliance with the policies and procedures	4.06	0.424
The company's culture, code of conduct, human resource policies and performance reward systems support its objectives and internal control systems.	3.28	0.904
Responsibilities are delegated and follow up action is made to get feedback on results of performance of all tasks delegated	3.86	0.833
Audit Committee adequately maintain a direct line of communication with the entity's external and internal auditors	3.44	1.091
There is honest and fair dealings with all stakeholders for the benefit of the organization	3.48	0.789

From Table 4.3 above, there are formalized policies and procedures for all major operations of the entity have a high effect on the company practices on control environment with a mean of 4.30. Majority of the respondents were in agreement that, Specific lines of authority and responsibility

have been established to ensure compliance with the policies and procedures and there is a well elaborate Organization Structure in the Company which adequately reflect chain of command in the company practice on control of environment with a mean of 4.06 for both. Others agreed that responsibilities are delegated and follow up action is made to get feedback on results of performance of all tasks delegated in line with the company practices on control environment.

Respondents also indicated that the company's culture, code of conduct, human resource policies and performance reward systems support its objectives and internal control systems, Audit Committee adequately maintain a direct line of communication with the entity's external and internal auditors, and There is honest and fair dealings with all stakeholders for the benefit of the organization affect the company practices on control environment having a mean of 3.28, 3.44 and 3.48 respectively.

The findings indicates that there is a well elaborate Organization Structure in the Company which adequately reflect chain of command and specific lines of authority and responsibility have been established to ensure compliance with the policies and procedures in the company practices on control environment.

4.5 Company Practices on Activities Control

The study sought to establish, how the Company Practices on Activities Control actually perform. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the Company Practices on Activities Control on a scale of 1 – 5. The mean ratings were computed as presented in the table 4.4 below

Table 4.4: Company Practices on Activities Control

	Mean	Std. Deviation
There is clear separation of roles in finance department	3.70	0.839
Staff are trained to implement the accounting and financial management system	3.56	1.033
Variances between actual and projected financial performance is explained by management on a timely basis	3.84	0.792
Individual independent of receivables record keeping promptly investigate disputes with billing amounts that are reported by customers.	3.42	0.859
Accounting records are limited to employees with designated responsibility for such records	3.96	0.947
Changes to the prescribed billing amount require the approval of an authorized individual	3.40	1.050
Procedures exist to prevent the interception or alteration by unauthorized persons of billings or statements before posting	3.70	1.093
Reconciliation is done monthly to reconcile separate records and properly resolve any differences	3.30	1.093

The results of the study from the table above, suggest that respondents agreed that accounting records are limited to employees with designated responsibility for such records. This is shown by a mean of 3.96. However a significant standard deviation of 0.947 is a clear manifestation of varied responses from respondents as far as Accounting records are limited to employees with designated responsibility for company practices on activities control is concerned. The respondents disagree that reconciliation is done monthly to reconcile separate records and properly resolve any differences. This is revealed by a mean value 3.30. However, a significant standard deviation of 1.093 suggests that respondents varied greatly in their responses to the test statement.

The respondents strongly agreed that variances between actual and projected financial performance is explained by management on a timely basis. This is revealed by a mean value of 3.84 with the standard deviation of 0.792 which indicates that the respondents varied greatly as far as this matter was concerned. The respondents agreed that procedures exist to prevent the interception or alteration by unauthorized persons of billings or statements before posting and there is clear separation of roles in finance department. This is revealed by a mean value of 3.70 for both. The standard deviation of 0.839 and 1.093 respectively reveals that there were varied responses from the respondents interviewed.

Other respondents disagreed that reconciliation is done monthly to reconcile separate records and properly resolve any differences. This revealed by a mean value of 3.30 which is very close the average of 3. However, the deviation of 1.093 suggests varied responses from the respondents interviewed. Findings indicates that variances between actual and projected financial performance is explained by management on a timely basis hence strong company practices on control activities.

4.6 Company Practices on Risk Assessment

The study sought to establish, how Company Practices on Risk Assessment. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the Company Practices on Risk Assessment on a scale of 1 – 5. The mean ratings were computed as presented in the table 4.5 below:

Table 4.5: Company Practices on Risk Assessment

	Mean	Std. Deviation
The Company analyzes the internal environment before introducing any change	3.12	0.982
The Company analyzes the external environment before making any decision	3.60	0.782
The Company is conversant with the global environment	3.54	0.930
Departments formulate individual strategies to overcome risks	3.18	1.063
The Company carry out internal audits and external audits on timely basis	3.94	1.132
The Company has contingent strategies to overcome risks	3.12	1.043
Management has put in place mechanisms for mitigation of critical risks that may result from fraud	3.42	1.052
Measures have been put in place for risk identification	3.36	1.045
Management has defined appropriate objectives for the organization	3.82	0.941
Management identifies risks that affect achievement of the objectives.	3.36	0.851
Management has a criteria for ascertainment of which fraud related risks to the organization are most critical	3.48	0.863

From the findings on the Company Practices on Risk Assessment the respondents agreed that the Company carry out internal audits and external audits on timely basis as shown by the mean of 3.94, Management has defined appropriate objectives for the organization which is represented by the mean of 3.82, the company analyzes the external environment before making any decision indicated by a mean score of 3.60, the company is conversant with the global environment indicated by a mean score of 3.54, Management has a criteria for ascertainment of which fraud related risks to the organization are most critical as indicated by a mean of 3.48, Management has put in place mechanisms for mitigation of critical risks that may result from fraud indicated by a

mean score of 3.42, Management identifies risks that affect achievement of the objectives and Measures have been put in place for risk identification indicated by a mean score of 3.36, while others disagreed that The Company analyzes the internal environment before introducing any change, The Company has contingent strategies to overcome risks and departments formulate individual strategies to overcome risks as indicated by a mean score of 3.18, 3.12 and 3.12 respectively. From the findings most respondents agreed that the Company carry out internal audits and external audits on timely basis.

4.7 Company Practices on Information and Communication

The researcher set out to examine the Company Practices on Information and Communication. The results are represented below.

Table 4.6: Company Practices on Information and Communication

	Mean	Std. Deviation
All employees understand the concept and importance of internal control systems including the division of responsibility	3.14	1.030
There is effective reporting of performance targets to be achieved in a particular financial year	3.72	0.834
Management receives timely, relevant, and reliable reports for decision-making	3.66	0.982
Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented	3.94	0.890
The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization	3.30	0.839

From the findings on the effectiveness of the Company Practices on Information and Communication the respondents agreed that Communication helps to evaluate how well guidelines

and policies of the organization are working and being implemented as indicated by a mean score of 3.94, There is effective reporting of performance targets to be achieved in a particular financial year as indicated by a mean score of 3.72, Management receives timely, relevant, and reliable reports for decision-making as indicated by a mean score of 3.66, The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization as indicated by a mean score of 3.30. In addition, the respondents disagreed that all employees understand the concept and importance of internal control systems including the division of responsibility as indicated by a mean score of 3.14. Findings indicates that the majority of respondents agreed that Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented.

4.8 Company Practices on Monitoring

The researcher set out to examine the Company Practices on Monitoring. The results are represented below.

Table 4.7: Company Practices on Monitoring

	Mean	Std. Deviation
Management assess the system of control from time to time	3.36	1.156
There are independent process checks and evaluations of control activities on an ongoing basis	3.44	0.760
Internal reviews of implementation of internal controls in units are conducted continuously	3.48	0.863
Periodically, management carries out reviews of internal control systems are in place	4.06	0.424

There are independent process checks and evaluations of controls activities on ongoing basis.	3.48	0.707
Internal reviews of implementation of internal controls in units are conducted periodically.	3.78	0.887
Monitoring has helped in assessing the quality of performance of the organization over time	3.84	0.792
Management assigns responsibilities for the timely review of audit reports and resolution of any non-compliance items noted in those audit reports	3.90	0.839

The results of the study as reflected in table 4.7 suggest that respondents were highly in agreement that periodically, management carries out reviews of internal control systems are in place as indicated by a mean of 4.06, Management assigns responsibilities for the timely review of audit reports and resolution of any non-compliance items noted in those audit reports as indicated by a mean of 3.90, Monitoring has helped in assessing the quality of performance of the organization over time as indicated by a mean of 3.84, Internal reviews of implementation of internal controls in units are conducted periodically as indicated by a mean of 3.78, There are independent process checks and evaluations of controls activities on ongoing basis and Internal reviews of implementation of internal controls in units are conducted continuously as indicated by a mean of 3.48, There are independent process checks and evaluations of control activities on an ongoing basis as indicated by a mean of 3.44. While a few were in agreement that Management assess the system of control from time to time as indicated by a mean score of 3.36. Findings indicate that majority of the respondents were in agreement that periodically, management carries out reviews of internal control systems are in place.

4.9 Company Achievement and Performance

The researcher set out to examine the Company Achievement and Performance. The results are represented below.

Table 4.8: Company Achievement and Performance

	Mean	Std. Deviation
The number of customer complaints within the last period has decreased strongly.	3.14	0.833
The company has computerized its billing system	4.12	0.689
Customers receive accurate bills	4.06	0.818
Customers pay their bills as they fall due	3.30	0.763
The company has not had any legal case over last period	3.34	0.772
There has been no fraud cases reported over the last period	3.60	0.926
The company's debt recovery has improved over the last period	3.26	0.803
The Company meets the statutory deadlines in submitting its financial reports	3.80	0.857
The Company has an active Audit Committee	3.84	0.934
The Company Audit Committee discusses and advices on the audit reports	3.84	0.792
The Company prepares annual budgets and meets budget allocations	3.72	0.834

From the information revealed by table 4.8, respondents believe that The Company has computerized its billing system as indicated by a mean of 4.12, the Customers receive accurate bills this is revealed by a mean of 4.06, the Company has an active Audit Committee and the Company Audit Committee discusses and advices on the audit reports as indicated by the mean score of 3.84 for both, The Company meets the statutory deadlines in submitting its financial reports as indicated by the mean of 3.80, The Company prepares annual budgets and meets budget allocations as it is revealed by a mean score of 3.72.

Some respondents partially agreed that Customers pay their bills as they fall due and The Company has not had any legal case over last period has an effect as indicated by the mean of 3.30 and 3.34 respectively.

While a few agreed that the number of customer complaints within the last period has decreased strongly, The Company's debt recovery has improved over the last period having a mean of 3.14 and 3.26 respectively.

From the findings, the company has computerized its billing system and Customers receive accurate bills has the highest effect in the performance of water companies in Kenya.

4.10 Inferential Statistics

4.10.1 Descriptive Statistics

Table 4.9: Descriptive Statistics

	Mean	Std. Deviation	N
Performance	3.64	0.554	50
Control Environment	3.78	0.509	50

Control Activities	3.61	0.803	50
Risk Assessment	3.45	0.850	50
Information and communication systems	3.55	0.827	50
Monitoring	3.67	0.669	50

The results indicated that control environment has a high influence to the performance of water companies in having a mean of 3.78, others with high influence are Control Activities Information and communication systems monitoring having a mean of 3.61, 3.55 and 3.67 respectively. Also risk assessment have a high influence to the performance of water companies having a mean of 3.45.

From the findings the respondents indicated that Performance, Control Environment, Control Activities, Risk Assessment, Information and communication systems and Monitoring has a great effect on the performance of water companies in Kenya.

4.10.2 Correlational Analysis

Pearson correlation coefficient was used to examine if there is any correlation in the performance of water companies in Kenya. Table 4.10 presents the findings.

Table 4.10: Correlations Results

		Y	X1	X2	X3	X4	X5
Pearson Correlation	Performance	1					
	Control Environment	0.775	1				
	Control Activities	0.822	0.916	1			

Risk Assessment	0.885	0.828	0.909	1		
Information and communication systems	0.915	0.898	0.938	0.958	1	
Monitoring	0.915	0.791	0.821	0.951	0.937	1

The study findings in table 4.10 shows a significantly strong positive correlation between Information and communication systems and Monitoring and performance having correlation coefficient 0.915.

The results also revealed that risk assessment is positively related to performance of water companies having a correlation coefficient of 0.885. This implies that the fewer the risks the more effective are the water companies.

The results revealed that Control activities is positively related to performance having a correlation coefficient of 0.822. This implies that the more users feel the control activities, the higher the performance of water companies.

There was a positive significant relationship between control environment and performance having a correlation coefficient of 0.775. This means that control environment positively influences the performance of water companies in Kenya. This implies that the more effective the control environment, the higher the higher the performance level of water companies.

4.10.3 Regression Analysis

Model Summary

The study used the regression model to predict the extent to which water companies perform. It presents the model summary of the regression equation. Table 4.11 presents model summary

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936a	0.876	0.862	0.20575

a Predictors: (Constant), Control Environment, Control Activities, Risk Assessment, Information and communication systems, Monitoring

The model shows the extent to which independent variables influence the dependent variable. The results in the above Table indicate that performance of water companies have 87.6% (R square= 0.876) predictive potential for water companies performance. This means that 87.6% of the variance in water companies performance is attributed to Control Environment, Control Activities, Risk Assessment, Information and communication systems, and Monitoring.

The findings indicates that there is a strong relationship between internal controls and the performance of water companies in Kenya having a R square of 0.876.

Anova Results

The findings in Table 4.12 presents the ANOVA results which reveal the performance of water companies in Kenya.

Table 4.12: Anova Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.154	5	2.631	62.145	.000b

Residual	1.863	44	0.042
Total	15.016	49	

a Dependent Variable: Y

b Predictors: (Constant), Control Environment, Control Activities, Risk Assessment, Information and communication systems, Monitoring

Since the P value is actual 0.000 which is less than 5% level of significance, the regression model was significant (sig. <.000) and therefore fit for the study.

Coefficients of the Model

Table 4.13: Coefficients Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.273	0.349		3.645	0.001
	Control Environment	-0.236	0.162	-0.217	-1.455	0.153
	Control Activities	0.137	0.158	0.199	0.869	0.39
	Risk Assessment	-0.297	0.176	-0.456	-1.692	0.098

Information and communication systems	0.483	0.197	0.722	2.451	0.018
Monitoring	0.564	0.193	0.682	2.917	0.006

a Dependent Variable: Y

From the analysis, information and communication systems and monitoring had p-values of less than 0.05 which means that they are significant predictors of the performance of water companies. However, Control Environment, Control Activities and Risk Assessment had p-values of more than 0.05 which means that they are not significant predictors of the performance of water companies.

The regression model becomes:

$$Y=1.273+-0.236X1+0.137X2+-0.297X3+0.483X4+0.564X5$$

This implies that water companies' performance is highly influenced by positive internal controls towards it. If you know the level of internal controls, it is possible to predict their level of performance. Internal control is a statistically significant predictor of performance of water companies therefore it can explain an increase or decrease in the performance of water companies in Kenya. This implies that if you know the level of internal controls to use water companies, it becomes easy to predict their performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusion and recommendations of the main findings on the relationship between internal controls and the performance of water companies in Kenya.

5.2 Summary of Findings

The study found that the highest number of respondents have been in service for more than 4 years. It found out that there is a well elaborate Organization Structure in the Company which adequately reflect chain of command and specific lines of authority and responsibility have been established to ensure compliance with the policies and procedures in the company practices on control environment. Findings indicates that variances between actual and projected financial performance is explained by management on a timely basis hence strong company practices on control activities. Findings indicates that most respondents agreed that the Company carry out internal audits and external audits on timely basis. Findings indicates that Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented. Findings indicate that majority of the respondents were in agreement that periodically, management carries out reviews of internal control systems are in place. The study found out that the company has computerized its billing system and Customers receive accurate bills has the highest effect in the performance of water companies in Kenya. Findings indicate that the Performance, Control Environment, Control Activities, Risk Assessment, Information and communication systems and Monitoring has a great effect on the performance of water companies in Kenya. The study found out that the more effective the control environment, the higher the higher the performance level of

water companies. The findings indicates that there is a strong relationship between internal controls and the performance of water companies in Kenya having R square of 0.876. The study found out that when the level of internal controls to use water companies is known, it becomes easy to predict their performance.

5.3 Conclusions

The study concludes that, positive relationship exist between internal controls and the performance of water companies in Kenya. This entails that for any organization to diversify effectively and increase its market share investment in product innovation is critical. It further concludes that the Companies has computerized its billing system as indicated by a mean of 4.12. Also the Customers receive accurate bills this is revealed, active Audit Committee and the Company Audit Committee discusses and advices on the audit reports which affects the performance to a greater extent. It further concludes that the Companies meets the statutory deadlines in submitting its financial reports, they prepare annual budgets and meets budget allocations which in return has a positive relationship in the internal controls and performance of the water companies in Kenya.

5.4 Recommendations

Based on the research findings, the researcher made some recommendations that are aimed at strengthening relationship between internal controls and the performance of water companies in Kenya. The researcher recommended that water companies should strengthen their research portfolio. Improved research will enable water companies to develop more effective customer service strategies by identifying both their “at risk” and most valuable customers. In doing so these companies will increase customer service delivery, acquire profitable customers and create more effective marketing strategies on their performance.

To build on competitive advantage through controls on performance of the water companies in Kenya, the management should understand the internal controls that will affect the performance of the companies among customers in specific geographic regions and demographic segments in order to serve their customer better especially on varied population. Segmenting will enable these companies to perform more better.

Finally the researcher continues to recommend the following quick win strategies for the outlets:

- Optimizing the company customer relationship management strategy to improve the customer experience and increase retention; Leveraging companies marketing, branding and customer self-care strategies to build customer loyalty and Strategic partnership in key areas such as technology and promotions.

5.5 Limitations of the Study

The study has been limited by the following reasons: First, the available time and resources to conduct a more detailed study were limited. Second, some respondents did not answer some of the questions as they were too conscious of disclosing too much information. From the responses, the effect of this guardedness could not be quantified. In some cases, some information was only disclosed after a lot of verbal persuasion.

Third, this research is based on responses from the water companies touching on internal controls and the performance that is both at the core of management, some of the results may be misleading given the vested interest as it was taken from the face value, moreover, no attempt was made to find out if internal controls led to better performance or not.

5.6 Areas for Further Research

The study recommends that a study should be undertaken on the factors affecting the size of Water service providers under Kenyan water companies' services boards.

The study was confined to water service providers in Kenyan water companies; on internal controls on the performance, further study should be undertaken on other water service providers in water services board and other firms in different industrial sectors. The role of internal controls on the financial performance of water companies should also be studied.

Also a study needs to be carried out on the assessment of key dimensions of the relationship between internal control and its effect on water companies' performance in a predefined environment in regard to social, religious, environmental and political consideration.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Appraisal of Internal Controls of Water companies in Kenya. This study is purely academic and respondents are assured that whatever information is provided will be highly confidential.

Instructions:

Kindly tick the box that clearly expresses your view about a question.

Name of the Company.....

The Department

How long have you been in the company?

- i) Less than 6 months [] ii) 6 months-1 year [] iii) 1-2 years [] iv) 2-3 years [] v) 3-4 years [] vi) More than 4 years []

Rank the extent to which your Company practices the following on Control Environment

	CONTROL ENVIRONMENT	1 Strongly disagree	2 Disagree	3 Not sure	4 Agree	5 Strongly agree.
1	The water company has a good Accounting and Financial Management System in place					
2	There is a well elaborate Organization Structure in the Company which adequately reflect chain of command					
3	There are formalized policies and procedures for all major operations of the entity.					

4	Specific lines of authority and responsibility have been established to ensure compliance with the policies and procedures					
5	The company's culture, code of conduct, human resource policies and performance reward systems support its objectives and internal control systems.					
6	Responsibilities are delegated and follow up action is made to get feedback on results of performance of all tasks delegated					
7	Audit Committee adequately maintain a direct line of communication with the entity's external and internal auditors					
8	There is honest and fair dealings with all stakeholders for the benefit of the organization					

Rank the extent to which your Company practices the following on Control Activities

	CONTROL ACTIVITIES	1.Strongly disagree	2.Disagree	3.Not sure	4.Agree	5. Strongly agree.
1	There is clear separation of roles in finance department					
2	Staff are trained to implement the accounting and financial management system					
3	Variances between actual and projected financial performance is					

	explained by management on a timely basis					
4	Individual independent of receivables record keeping promptly investigate disputes with billing amounts that are reported by customers.					
5	Accounting records are limited to employees with designated responsibility for such records					
6	Changes to the prescribed billing amount require the approval of an authorized individual					
7	Procedures exist to prevent the interception or alteration by unauthorized persons of billings or statements before posting					
8	Reconciliation is done monthly to reconcile separate records and properly resolve any differences					

Rank the extent to which your Company practices the following on Risk Assessment

	RISK ASSESSMENT	1 Strongly disagree	2 Disagree	3 Not sure	4 Agree	5 Strongly agree.
1	The Company analyzes the internal environment before introducing any change					
2	The Company analyzes the external environment before making any decision					

3	The Company is conversant with the global environment					
4	Departments formulate individual strategies to overcome risks					
5	The Company carry out internal audits and external audits on timely basis					
6	The Company has contingent strategies to overcome risks					
7	Management has put in place mechanisms for mitigation of critical risks that may result from fraud					
8	Measures have been put in place for risk identification					
9	Management has defined appropriate objectives for the organization.					
10	Management identifies risks that affect achievement of the objectives.					
11	Management has a criteria for ascertainment of which fraudrelated risks to the organization are most critical					

Rank the extent to which your Company practices the following on Information and Communication

	INFORMATION AND COMMUNICATION SYSTEMS	1 Strongly disagree	2 Disagree	3 Not sure	4 Agree	5 Strongly agree.
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1	All employees understand the concept and importance of internal control systems including the division of responsibility					
2	There is effective reporting of performance targets to be achieved in a particular financial year					
3	Management receives timely, relevant, and reliable reports for decision-making					
4	Communication helps to evaluate how well guidelines and policies of the organization are working and being implemented					
5	The reporting system on organizational structures spells out all the responsibilities of each section/unit in the organization					

Rank the extent to which your Company practices the following on Monitoring

	MONITORING	1 Strongly disagree	2 Disagree	3	4 Agree	5 Strongly agree.
1	Management assess the system of control from time to time					
2	There are independent process checks and evaluations of control activities on an ongoing basis					
3	Internal reviews of implementation of internal controls in units are conducted continuously					

5	Periodically, management carries out reviews of internal control systems are in place					
6	There are independent process checks and evaluations of controls activities on ongoing basis.					
7	Internal reviews of implementation of internal controls in units are conducted periodically.					
8	Monitoring has helped in assessing the quality of performance of the organization over time					
9	Management assigns responsibilities for the timely review of audit reports and resolution of any non-compliance items noted in those audit reports					

Rank the extent to which your Company has achieved the following

	PERFORMANCE	1 Strongly disagree	2 Disagree	3 Not sure	4 Agree	5 Strongly agree.
1	The number of customer complaints within the last period has decreased strongly.					
2	The company has computerized its billing system					
3	Customers receive accurate bills					
4	Customers pay their bills as they fall due					
5	The company has not had any legal case over last period					
6	There has been no fraud cases reported over the last period					

7	The company's debt recovery has improved over the last period					
8	The Company meets the statutory deadlines in submitting its financial reports					
9	The Company has an active Audit Committee					
10	The Company Audit Committee discusses and advices on the audit reports					
11	The Company prepares annual budgets and meets budget allocations					

APPENDIX II: WATER COMPANIES IN KENYA CLUSTERED AS PER THE WATER SERVICE BOARDS

ATHI WATER SERVICE BOARD

- 1) Nairobi City Water and Sewerage Company (NCWSC)
- 2) Kiambu Water and Sewerage Company
- 3) Thika Water and Sewerage Company
- 4) Gatundu Water and Sewerage Company
- 5) Githunguri Water and Sewerage Company
- 6) Limuru Water and Sewerage Company
- 7) Kikuyu Water and Sewerage Company
- 8) RujaWasco Water and Sewerage Company

COAST WATER SERVICE BOARD

- 1) Mombasa Water Supply and Sanitation Services Company (MOWASSCO)
- 2) Malindi Water and Sewerage Company (MAWASCO)
- 3) Kilifi-Mariakani Water and Sewerage Company (KIMAWASCO)
- 4) Kwale Water and Sewerage Company (KAWASCO)
- 5) TAVEVO Water and Sewerage Company
- 6) Lamu Water and Sewerage Company (LAWASCO)
- 7) Tana Water and Sewerage Company (TAWASCO)

TANAATHI WATER SERVICE BOARD

- 1) Kitui Water and Sanitation Company,
- 2) Kiambere-Mwingi Water and Sanitation Company
- 3) Oololaiser Water and Sewerage Company,
- 4) Machakos Water and Sewerage Company,
- 5) Mavoko Water and Sewerage Company,
- 6) Olkejuado Water and Sewerage Company,
- 7) Nolturesh-Loitokitok Water and Sewerage Company,
- 8) Yatta Water and Sewerage Company,
- 9) Mwala Water and Sanitation company,
- 10) Wote Water and Sewerage Company,
- 11) Matungulu-Kangundo Water and Sewerage Company,

TANA WATER SERVICE BOARD

- 1) Nyeri Water and Sewerage Company
- 2) Embu Water and Sanitation Company
- 3) Meru Water and Sewerage Services
- 4) Mathira Water and Sanitation Company
- 5) Tetu Arberdare Water and Sanitation Company
- 6) Othaya/Mukurweini Water Services Company
- 7) Gatamathi Water and Sanitation Company
- 8) Murang´a Water and Sanitation Company
- 9) Murang´a South Water and Sanitation Company
- 10) Kirinyaga Water and Sanitation Company
- 11) Embe Water and Sanitation Company
- 12) Nithi Water and Sanitation Company
- 13) Imetha Water and Sanitation Company
- 14) Kahuti Water and Sanitation Company
- 15) Kyeni Water and Sewerage Company
- 16) Rukanga Water and Sanitation

NOTHERN WATER SERVICE BOARD

1. Nanyuki Water and Sewerage Company
2. Isiolo Water and Sewerage Company
3. Garissa Water and Sewerage Company
4. Nyahururu Water and Sanitation Company
5. Maralal Water and Sanitation Company
6. Rumuruti Water and Sanitation Company
7. Moyale Water and Sanitation Company
8. Mandera Water and Sewerage Company

LAKE VICTORIA NORTH WATER SERVICE BOARD

1. Eldoret Water and Sanitation Company
2. Nzoia Water Services Company
3. Western Water Services Company.
4. Amatsi Water Services Company
5. Kapsabet Nandi Water and Sanitation Company

LAKE VICTORIA NORTH WATER SERVICE BOARD

1. Kisumu Water and Water and Sewerage Company
2. Kericho Water and Sewerage Company
3. Gusii Water and Sewerage Company
4. Siaya-Bondo Water and Sanitation Company
5. HomaBay Water and Sanitation

RIFTVALLEY WATER SERVICE BOARD

1. Lodwar Water and Sewerage Company
2. Naivasha Water and Sewerage Company
3. Narok Water and Sewerage Company
4. Nakuru Water and Sanitation Company
5. Ol-Kalau Water and Sewerage Company