THE RELATIONSHIP BETWEEN INTERNAL CONTROL SYSTEMS AND REVENUE COLLECTION EFFICIENCY IN WATER SERVICES PROVIDERS IN THE ATHI WATER SERVICES BOARD

BY

GAKU LEAH GATHONI

D63/64285/2013

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN FINANCE OF THE UNIVERSITY OF NAIROBI

NOVEMBER, 2014

DECLARATION

This research project is my original work and has never been presented for an award of a diploma or degree in this or any other university

Signature_____ Date_____

LEAH GATHONI GAKU **Reg.No. D63/64285/2013**

This research project has been submitted for examination with my approval as the university supervisor.

Supervisor: **MR. ABDULATIF ESSAJEE**

Signature_____ Date_____

ACKNOWLEDGEMENT

First I thank the Almighty God for giving me an opportunity and resources to undertake this research project. I wish to express my sincere thanks to my supervisor Mr.Abdulatif Essajee for his support and tireless efforts that have made this dream a reality. No amount of words can express my sincere gratitude for your unending support during the research period. May the Lord reward your effort.

I would also like to give my sincere appreciation to my mother Terasah Wangari, my family and friends for their understanding and support during my undertaking of the project.

DEDICATION

This project is dedicated to my spouse Patrick Kariri for his support and encouragement throughout my studies.

To my family for their continuous encouragement during my study. I say thank you and God bless you.

LIST OF ABBREVIATIONS

ACCA   Association of Chartered Certified Accountants

AWSB   Athi Water Services Board

COSO   Committee of Sponsoring Organizations

WASREB   Water Service Regulatory Board

WSP   Water Services provider

WSPs   Water Services Providers

ABSTRACT

Water services providers have to put in place appropriate internal controls to ensure that revenue collection and billing are done promptly to enhance their revenue collection efficiency. It was upon this that the researcher sought to examine the relationship between internal controls and revenue collection efficiency in water services providers in Athi Water Services Board. The study had the following objective; to examine the relationship, if any, between internal control systems and collection efficiency in water services providers under the Athi Water Services Board. The study design was cross sectional and quantitative data was used. The sample size constituting of 12 respondents from water services providers in Athi water services board. Questionnaires coded were constructed on the computer using Statistical Package for Social Science for analysis. Statistical Package for Social Science was used to analyze the relationship between the two variables. The data collected was then analyzed and findings have 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 therefore concludes that internal controls do function although with hiccups and that there is effect between internal controls and revenue collection in water services providers. From the findings, there was variation of revenue collection efficiency and internal control components. From the findings on the correlation analysis the study revealed that there was a strong relationship between control environment, control activities, monitoring, internal audit, and information technology and revenue collection efficiency.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

1.1Background of the Study

There is a general perception that proper internal control systems will always lead to improved financial performance of organizations (Jensen, 1983). Internal control systems were construed to mean a process effected by the entity's board of directors, executive management ,internal auditor and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the categories; reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations (Ray and Kurt, 2001). Available literature, however, still point out that in spite of elaborate system of controls in organizations, financial performance has been elusive in most of these organizations (ACCA, 2010)

According to Rick Hayes (2005,) internal control comprises of five components; the Control Environment –an environment or culture where control is recognized and emphasized , Risk Assessment-the establishment of policies and procedures for risk assessment, Control activities –the recognition that all activities require some measure of control, Accounting, Information Technology-the institution of accounting ,information and communication systems and Monitoring-the establishment of policies and procedures for self-assessment.

Stoner (2003) refers to performance as the ability to operate efficiently, profitability, survive, grow and react to the environmental opportunities and threats. There are nine key performance indicators (KPIs) which provide a good picture of a water service provider's performance .These are Water Coverage, Sanitation Coverage, Non-Revenue Water (NRW), Water Quality, Hours of Supply, Metering Ratio, (Revenue) Collection Efficiency, Operation and Maintenance (O+M) Cost Coverage, and Staff Productivity (Staff per 1000 Connections)

(WASREB, 2012). This study will look at collection efficiency as an indicator of performance.

Revenue collection is the amount of money that a company receives during a specific period. It is the "top line" or "gross income" figure from which costs are subtracted to determine net income. Revenue collection is income that a company receives from its normal business activities, usually from the sale of goods and services to customers. Revenue collection efficiency is measured by comparing the total amount collected by a WSP to the total amount billed in a given period. It is a critical performance indicator of a WSP as it gives an indication on the effectiveness of the revenue management system in place and consequently the amount of resources available to the WSP. It also reflects customers' willingness to pay, which is closely related to customer satisfaction (WASREB, 2012)

1.1.1 Internal Controls

Gupta (2001) drawing from Statements of Standard Auditing Practices No. 6 (SAP 6) defines Internal control as "the plan of organization and all the methods and procedures adopted by the management of an entity to assist in achieving management objectives of ensuring as far as practicable, the orderly and efficient conduct of its business, including adherence to management policies, the safeguarding of assets, prevention and detection of fraud and error, the accuracy and completeness of accounting records and the timely preparation of reliable financial information". It is therefore worth noting from the above that; properly organized systems of internal control will ensure; completeness of all transactions undertaken by an entity, that the entity's assets are safeguarded from theft and misuse, that transactions in the financial statements are stated at the appropriate amounts, that all assets in the company's financial statements do exist, that all the assets presented in the company's financial statements are recoverable and that the entity's transactions are presented in the appropriate manner according to the applicable reporting framework (ACCA, 2010).

Internal control is the term generally used to describe how management assures that an organization does meet its financial and other objectives in the following categories: effectiveness and efficiency of operations, reliability of financial information and compliances with the applicable laws and regulations (COSO, 1992). Internal control systems not only contribute to managerial effectiveness but are also important duties of corporate boards of directors. (Verschoor,2009).

Control environment: Is the major aspect of managing an organization this is because is a reflection of the attitude and the policies of management in regard with the importance of internal audit in the economic unit (Theofanis, Drogalas and Giovanis, 2011). It has influence over organization goals achievement (Aldridge & Colbert, 1994). However, it is the foundation for the other components of internal control and providing structure (Sudsomboon & Ussahawanitchakit, 2009). Control environment assist toward reducing the level fraudulent activities within organizational operation also the quality of an entity's internal controls system depend on the function and quality of their control environment (Amudo & Inanga, 2009). Therefore, providing a proper control environment for a local government is very essential to the effectiveness of their operation.

Risk assessment: This is the identification and analysis of relevant risks associated with the achievement of the management objectives (Theofanis, et al 2011), similary (Sudsomboon & Ussahawanitchakit, 2009) view risk assessment as the process of identifying and analyzing management relevant risks to the preparation of financial statements that would be presented fairly in conformity with general accepted accounting principle. In this situation, management must determine the level of risk carefully to be accepted, and should try to

maintain such risk within determined levels. Therefore, local governments are required to frequently assess the level of risk their experiencing in order to take necessary actions.

Control activities: These are policies, procedures and mechanisms that ensure management's directives are properly carry out (Aikins, 2011; Rezaee, Elam & Sharbatoghlie, 2001). Proper documentation of policies and procedural guidelines in these aspects help to determine not only how the control activities are to be executed but also provide 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 achieves. Example of control activities include; segregation of duties, daily deposit of cash receipts, bank reconciliations and limiting access to check stock

Information and communication: refers to the process of identifying, capturing, and communicating of relevant information in an appropriate manner and within timeframe in order to accomplish the financial reporting objectives (Aldridre & Colbert, 1994). However, effective communications should occur in a wider sense with information within the various sections of the organization (Theofanis et al, 2011). Most of the recent literature on internal control system frameworks gave concerned 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 & 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.

Monitoring: it is usually accepted that internal control systems need to be adequate monitored in order to assess the quality and the effectiveness of the system's performance over time.

4

Monitoring provides assurance that the findings of audits and other reviews are promptly determined (Theofanis et al, 2011), also monitoring of operations ensures effective functioning of internal controls system (Amudo & Inanga, 2009). Hence, monitoring determines whether or not policies and procedures designed and implemented by management are being carried out effectively by employees.

1.1.2 Revenue Collection Efficiency of Water Services Providers

Water utilities and service providers in Kenya are plagued with severe deficiencies in the delivery of services, with access to reliable, sustainable, and affordable water supply and sanitation services remaining poor in general. The sector's worrying performance is caused, among other reasons, by financial and capacity constraints, including the absence of a commercial orientation to services, institutional deficiencies, and the lack of systemic incentives to deliver ongoing quality services.

In its Impact Report, "A Performance Review of Kenya's Water Service Sector – 2010/2011 Issue No 5 0f 2012", WASREB (2012) reported that even though the Revenue Collection Efficiency, which is the total amount collected by a WSP compared to the total amount billed in a given period has improved overtime, ranging from 82% in 2009/2010 to 84% in 2010/2011, against a sector benchmark of 85%,a range which is indicated in the same report as being unacceptable for Urban WSPs, the non-revenue water has remained at the same level of 45% for the same periods. Other performance indicator such as water coverage, which in essence means the number of connections have shown significant increase from 48% to 52% in the same period under consideration. With these increments, it would have been expected that revenue collection would increase. However, it has remained at the same level or has shown decrease over the same period by Urban WSPs resulting into accumulation of arrears.

Effective billing and collection systems are a critical component for ensuring the viability of a service provider. Improving billing and collection activities has an immediate impact on the revenue streams of a service provider that can, in turn, help the service provider in improving services.

1.1.3 Relationship between Internal Controls and Revenue Collection Efficiency

Both small and large firms are confronted with scarce and limited resources in general and that of finance in particular. Therefore, anyone involved in some way in their management is necessarily concerned with the effective utilization of resources available for discharging the commercial activities for which they are responsible. This is done through a sound internal control system that ensures the attainment of the desired results. It is in this perspective that internal control system plays a critical role in allocating and utilizing financial resources. It is thus the responsibility of the management to device, establish, and supervise the implementation of internal controls via which resources will be efficiently allocated and utilized.

Mohammed (1983) emphasized that the existence of controls is very crucial, especially under today's conditions with severe competition which placed premium on reliable customer services, on the conservation of cash, on realization of capital assets and manpower, and on the reduction of cost.

1.1.4 Water Services Providers under Athi Water Services Board

Athi Water is one of the eight Water Boards under the Ministry of Environment, Water and Natural Resources created to bring about efficiency, economy and sustainability in the provision of water and sewerage services in Kenya. Athi Water is created under Section 51 of

the Water Act 2002 serving a population over 5.5 million .It was licensed by Water Services Regulatory Authority (WASREB) and commenced operations in 2004.

The board works hand in hand with Water Service Providers who handle operations and maintenance of developed water and sanitation infrastructure. The AWSB has appointed the Nairobi Water & Sewerage Company (NWSC) as the Water Services Provider (WSP) in the City.

The board covers Nairobi and the surrounding areas of Thika, Limuru, Ruiru, Kikuyu, Karuri, Gatundu, Githunguri, Gatanga, Kiambu, Karimenu, and Runda. The area has a total of 3810 Square Kilometers and a population of 5.5 Million people. Direct provision of water to residents is done through its twelve appointed Water Services Providers.

1.2 Research Problem

In the face of implementation of reforms and the existence of the service provision agreements (SPAs) in the water sector, the performance of water companies in terms of coverage , hours of service, quality of water and cost coverage has remained relatively low leading to continued suffering by Kenyans. Services offered by the WSPs are also characterized by high levels of non-revenue water (NRW), poor debt management practices, lack of openness and accountability, inadequate commercial management and tariffs that are insufficient to cover operations and maintenance costs (Citizens report card, 2007).

Water service delivery is financed through tariffs which determine the level of revenues that WSP receive from users. Ordinarily, the trend is for tariffs to cover the full costs of water supply and sanitation, including capital replacement and the remuneration of equity. Even with cost-reflective tariffs being approved, lack of cost coverage due to insufficient revenues

coupled with instances of non-compliance to operational efficiencies as stipulated by WASREB exist. Significant potential for improvement in revenue generation, cost recovery and service delivery by WSPs under Athi water services board exist. This potential can be harnessed by improving on efficiencies in operational practices without necessarily increasing the levels of tariffs.

While effective collection practices depend on many internal factors including customer databases, the extent of metered and unmetered service provision, tariff and billing structures, delivery of bills and facilities for customer payments; the institutional arrangements under which service providers operate and provide services determine whether such practices will remain sustainable in the long term

Poor revenue collection efficiency is mostly blamed on customers but the utility may also be at fault for delayed and faulty billings, inadequate responses to consumer queries on billings, poor customer service and a lukewarm effort to collect overdue accounts. The effectiveness of the collections process is measured by the amount of outstanding revenues at year end compared to the total billed revenue for the year (World Bank, 2010).

It is against this background that the study focused on determining the relationship, if any, between internal control and revenue collection efficiency among water service providers under the Athi Water Services Board from the perspective of internal controls which has hitherto been ignored.

1.3 Research Objective
The study aimed at meeting the following objective;

To examine the relationship, if any, between internal control systems and collection efficiency in water services providers under the Athi Water Services Board.

1.4 Value of the Study

The results of the study helped to identify gaps within the systems of internal control of water services providers. Solutions emerged on how to streamline the systems of internal controls thus ensuring improved collection efficiency and ultimately ensure attainment of the organization objectives.

The management of water services providers will benefit by adopting the findings of this study to improve their efficiency and effectiveness through the use of proper internal control system in all their operations to enhance their collection efficiency.

The findings of this study will also be useful to policy makers in analyzing the impact of internal controls on collection efficiency and in analyzing the different measure that have to be taken by water services providers in order to improve their collection efficiency.

The study will also add to the existing knowledge regarding internal controls. Scholars and other researchers may also find the study useful to identify further areas of research built on the findings of this research. The study may also be a source of reference material for further researcher on other related areas.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter provides a discussion of the relevant theories that support and explain various issues in internal controls and provides an insight of internal controls attributes to this study, a review of empirical studies relevant to this study and a conclusion.

2.2 Theoretical review

This section reviews significant theories in internal controls which are relevant to this study. They include control theory, agency theory, and stakeholders' theory.

2.2.1 Control Theory

Control theory and experience suggest that a person who abuses a system of controls is more likely to act alone than to collude with another. According to Rotter (2001), internal locus of control (ILOC) versus external locus of control conceptualizes how individuals see their own action affecting events that surround their lives. Individuals with ILOC tend to believe that events are the results of their own actions(Rotter,2001),while individuals with external locus of control tend to attribute to attribute events to external environmental factors, such as powerful others or chance (Levenson,2000).

Viewing the concept of ILOC in the context of an entrepreneur running their business in a competitive environment, one can imagine that an entrepreneur with a strong ILOC would believe that they can make things happen, and that the success or failure of their business is the result of their own action .In contrast, an entrepreneur with an external locus of control might consider that the external environment is the main reason for their business success or failure.

2.2.2 The Agency Theory

Agency theory describes firms as necessary structures to maintain contracts, and through firms, it is possible to exercise control which minimizes opportunistic behavior of agents. Accordingly, Barlie and Means (1932) put forward that 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. They further explain that the relationship is further strengthened by the principal employing an expert to monitor the agent. This position is also supported by Coarse (1937) who maintains that the contract provides for conflict resolution between the agent and principal, the principal determines the work and agent undertakes the work. He however, proposes that the principal suffers avoidance which deprives him or her from benefiting from the work of the agent. Nevertheless, the theory recognizes the incomplete information about the relationship, interests or work performance of the agent described as adverse selection and moral hazard.

Coarse (1937) explains that moral hazard and adverse selection affects the output of the agent in two ways; not doing exactly what the agent is appointed to do, and not possessing the requisite knowledge about what should be done. This therefore, affects the overall performance of the relationship as well as the benefits of the principal in form of cash residual. Other related reviews include; The Sarbanes-Oxley Act of 2002 (SOX) which requires companies to report on the effectiveness of their internal controls over financial reporting as part of an overall effort to reduce fraud and restore integrity to the financial reporting process; John (2011) asserts that software vendors that market enterprise resource planning (ERP) systems have taken advantage of this new focus on internal controls by emphasizing that a key feature of ERP systems is the use of "built-in" controls that mirror a firm's infrastructure. They emphasize these features in their marketing literature, asserting

that these systems will help firms improve the effectiveness of their internal controls as required by SOX.

2.2.3 Stakeholders Theory

The traditional definition of a stakeholder ''is any group or individual who affect or is affected by the achievement of the organization objectives''(Freeman ,1984).Friedman(2006) states that the organization itself should be thought of as a grouping of stakeholders and the purpose of the organization should manage the interest ,needs and viewpoints of stakeholders. This stakeholder management is thought to be fulfilled by the manager of a firm. The manager should on the other hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and the participation in decision making.

Normative stakeholder theory contains theories of how managers or stakeholders should act and should view the purpose of organization based on some ethical principle (Friedman, 2006). Another approach to the stakeholder concept is the descriptive stakeholder theory, which is concerned with how managers and stakeholders actually behave and how they view their actions and roles on the other. Management should ensure they balance the multiple claims of conflicting stakeholders (Freeman, 1997).the value of the firm is to create wealth or value for its stakeholders by converting their stakes into goods and services (Clarkson, 1995).

 Stakeholders theory is based on two ethical principles, ''principle of corporate rights and the principle of corporate effects.'' The principle of corporate rights means that the corporation and its managers may not violate the legitimate rights of others of others to determine their future. Principle of corporate effects on other hand is about responsibility for consequences. Corporations and its managers are responsible for effects of their actions on others (Mele, 2006). Etzioni (1982) supports the stakeholder view. He accepts the moral legitimacy of the

claim that shareholders have certain rights and entitlement because of their investment, but he maintains that the same basic claim should be extended to all those who invest in the corporation.

2.4 Determinant of revenue collection efficiency in water services providers

According to Akech (2007) the main problems affecting water payment in the region are weak billing and revenue collection mechanisms, cost of water and heavy financial losses. Athi Water Services Board (2009) attributed the lack of payment of water to cost recovery and their financial base. Various studies were found useful in regarding revenue collection as a factor influencing payment of water by users. Mumma, Lane, Kairu, Tuinhof, Hirji (2011) showed that the WPSs are suffering due to lack of centralized repository of data. They indicated that there is no detailed listing of which agency has what data and at what cost. This means that water allocation decisions may be based on incomplete data or no data at all.

Where the water services providers has revenue collection mechanism such as few steps in revenue collection, number of pay points, mode of revenue collection, the payment of water by consumers is prompt too. The generation of revenues by water services providers suffers many challenges attributable to billing system, revenue collection system, cost of water, and water consumer behaviour (UNHABITAT, 2011).

The economic performance of Kenyan Water Service Providers is closely monitored by WASREB and made available in the Impact Report to encourage competition and spread best practices. Important indicators of economic efficiency are: collection rates, the level of non-revenue water, metering ratios and labour productivity. Most Kenyan Water Service Providers do not meet the benchmarks in these dimensions (WASREB 2009).

Another challenge is the Unaccounted for Water (UFWS), being the difference between the amount of water produced and the amount of water sold. Accompanying this is the UFW, which is mainly due to leakage from pipes, unauthorized use (illegal connections, unbilled consumers), authorized but unmetered connections, inaccurate master meters for industrial, commercial and domestic purposes. This UFW is also referred to as non-revenue water (NRW). These challenges directly translate to the amount of money lost by water services providers, by extension in the entire water sector. Overcoming these challenges is crucial step in improving the financial base of water utilities and saving scarce water resources. (WASREB 2009). In addition to the fore mentioned problems in revenue collection by water services providers, there is the issue of the systems and processes that the water services providers have put in place to collect the revenue.

These include the number and location of pay points; the mode, number and availability of the various methods of making the payments which may be either electronic or manual. Water services providers in Athi Water Services Board are not exempted from these problems and therefore this study will endeavor to establish to what extent these factors affect the revenue collection. The study will evaluate their adequacy, effectiveness and efficiency.

2.5 Empirical Review

Internal control systems is a topical issue following global fraudulent financial reporting and accounting scandals in both developed and developing countries. Prior studies reviewed have focused on aspects of controls that relates to performance reporting, overall performance of a firm, financial performance on financial institutions and existing internal controls without looking at the impact they have on financial performance of a company. It is on this basis therefore that this study sought to examine the relationship between internal control systems and revenue collection efficiency in water services providers in Athi Water Services Board.

According to Akech (2007) the main problems affecting water payment in the region are weak billing and revenue collection mechanisms, cost of water and heavy financial losses. Athi Water Services Board (2009) attributed the lack of payment of water to cost recovery and their financial base. This study will focus on how efficient water services providers are in collecting revenue.

Moraa, Otieno and Salim (2012) established that water service providers needed to develop and manage water resources efficiently and effectively, and at the same time being accountable to consumers. They found that some challenges facing WSPs were related to billing system. It was established that good systems, were key to effective service delivery. Although the study by Moraa *et al.* (2012) did not clearly show how the billing systems affected the payment of water, it provided information linking billing systems to the payment of water. This study will fill the gap that the study by Moraa *et al*. (2012) did not fill, of related systems and processes to payment of water.

Mumma *et al.* (2011) showed that the water services providers are suffering due to lack of centralized repository of data. They indicated that there is no detailed listing of which agency has what data and at what cost. This means that water allocation decisions may be based on incomplete data or no data at all. Where the water services providers has revenue collection mechanism such as few steps in revenue collection, number of pay points, mode of revenue collection, the payment of water by consumers is prompt too.

Abraham (2013) conducted a study to establish whether there was a relationship between internal controls and performance in non-governmental organizations, a case study of Management Sciences for Health Organization (MSH). The objectives of the study were, to examine how MSH of South Sudan had ensured effective payment to different departments in

the organization, how MSH of South Sudan had ensured financial records are subject to internal audit, how MSH South Sudan had ensured effective procurement policies and to assess how MSH has exercised budgetary control on the expenditure of all departments in the organization.

The study followed a descriptive research design. The quantitative technique was used to collect and analyze data on the role of internal controls on the performance of MSH. Abraham Ayom failed to conclude whether there is a positive or negative relationship between internal controls and performance of the organization. This study aims at confirming or otherwise establishing whether there is a relationship between internal controls and revenue collection efficiency of enterprises.

Mwangi (2011) carried out a research on the relationship between internal control system and financial performance of Alexander Forbes financial services of (EA) limited. The research design used was a case study that relied heavily on secondary data from published financial statements of the company. The findings revealed that control activities contribute more to the effectiveness of internal controls and financial performance of Alexander Forbes Financial services of (EA) limited followed by the risk assessment, information and communication, monitoring ,control environment being the least. The study was done on a financial institution.—This study shall focus on water services providers that are indirectly owned by the citizens of the country.

Muraleetharan (2008) conducted a study on internal controls and their impact on financial performance of both public and private organizations' in Jaffna district. The objective of the study was to find out the relationship between internal control and financial performance, the major determinants of internal control system and the financial performance factors. The

study was limited to randomly selected public and private organizations in Jaffna district. The findings of the study revealed that internal control has a significant impact on financial performance and that the control environment and information and communication negatively influence financial performance. Risk assessment, control environment, monitoring, however, were identified as having positively influenced financial performance.

Ochege (2011) carried out a research on internal controls and organization performance, a case of Medipont Industries Ltd .The objectives of the study were to examine the effectiveness of internal controls used in Medipoint Industries Limited, establish the level of performance in Medipoint Industries Limited and establish a relationship between internal control and performance in Medipoint Industries Limited. A cross sectional survey was used in the course of the study. Both qualitative and quantitative data was gathered in order to establish the relationship between the independent and dependent variables from the study findings, it was concluded that the internal controls used in Medipoint Industries Limited were ineffective and unsatisfactory, the level of organizational performance was found to be inadequate and a significant positive relationship between internal controls and organizational performance was established to exist. The use of cross sectional design could not give actual result as it only helped the researcher to establish whether significant associations among variables exist at some point in time.(Mugenda,2008).

Mohammed (1983) evaluated the internal controls of Ethiopian airlines branch office in Nairobi, the objectives of the study was to analyze the existing internal control system of the branch office. The findings were conducted through interviews with the area manager, the accountant, the sales manager, the airport service's manager, the cargo manager and the public relations manager. The findings revealed that lack of segregation of accounting and custodian functions was the greatest weakness of the branch office. He argued that there is

need to centralize cash receipts, establish an audit unit, separate accounting unit from sales section, separate duties of purchase activities and establish a perpetual inventory system for the tickets. He further emphasized that the existence of controls is very crucial, especially under today's conditions with severe competition which placed premium on reliable customer services, on the conservation of cash, on realization of capital assets and manpower, and on the reduction of cost.

Esmailjee (1993) evaluated existing internal controls of Nyayo bus services corporation, Nairobi, He conducted the study with objective of evaluating existing internal controls and provide a framework for sound internal controls and to document the existing internal control system of Nyayo bus services corporation paying attention to the cash receipts cycles, cash disbursements cycle, purchase cycle, payroll and stores accounting cycle. The findings were obtained via personal interviews with selected staff and management groups. The findings revealed that there is a lot to be desired from both the payroll and stores accounting systems. Also, internal auditors were being underutilized .They are charged with responsibility of performing routine control checks which are also performed by the examination section. This had led into the duplication of efforts and down playing of the internal auditor's effectiveness and roles.

 He recommended a plan of an organization chart requires division of duties, responsibilities and clearly defined authority. Also strict controls and procedures should be instituted and communicated to the clerks handling waybills to ensure that waybills are handled with care and used for the purpose they were intended. The paying of salaries using cash weakens the payroll controls considerably. The use of this practice encourages dishonest employees to engage in padding. From an internal control point payment should be made by cheque , this

will not only act as control on the payroll but would also facilitate comparison between months for any changes that may appear.

The stores area bears the weakest controls in the corporation, the major weakness being the lack of segregation of duties, the lack of control of accounts and poor physical security. On the side personnel the hiring of qualified accountants was required to facilitate the strengthening of internal controls, such personnel would be in a position to identify lapses in the systems and take remedial action on a timely basis.

Cook (1968) looked at the effectiveness of the frequency of performance reporting and control. Cook studied the effectiveness of controls reports with objective of ranking on scale the attitudes of 134 managers in 59 U.S.A companies towards the control report they received. Cooks findings obtained via mail questionnaires revealed that attitude of managers towards reports was a function of the frequency with which the reports were provided. The participating managers gave the highest ratings to daily control reports and gave the lowest ratings to annual reports.

Khandwalla (1972) carried out a research on the relationship between the degrees of competition, the greater would be the need to control costs and evaluate whether actual performance met expected performance. He surveyed 92 companies using cardinal ranking and divided the variables into four independent variables, price competition, marketing competition, product quality and variety competition .the independent variable was usage controls. His findings indicated that product competition had the highest correlation with control usage.

Piper (1980) found that the task complexity, financial control system structure and organizational structure measured on the dimensions of centralization and decentralization are related to each other. Piper had generated a hypothesis that the primary determinant of financial controls system is task complexity, but their effect is via an intervening variable – the organization structure. By conducting case study of 4 companies which were evaluated on the basis of number of stores ,range of products ,product characteristics, number of years in existence ,stores controls, manager evaluation company financial performance among others. He concluded that high task complexity is linked to a low level of financial controls system structure and a decentralized structure while low task is linked to a high level of financial control system structure and a centralized structure.

2.6 Conclusion

A good internal control structure is essential to providing reasonable assurance that water services providers are achieving their objectives. Such objectives include but are not limited to utilizing resources in compliance with the law and regulations and providing reliable, cost efficient service.

An adequate control structure will provide information that helps detect errors and fraud and provide reasonable assurance that financial report is accurate. It will limit the opportunity for theft or unauthorized use of assets including cash, inventory and capital assets. This study will therefore examine the relationship between the internal control and revenue collection efficiency.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the methods that the study employed to collect data and analyze it. The chapter discusses the research design, target population, sampling technique, sample size, data collection methods and the data analysis techniques, data reliability and validity.

3.2 Research Design

The research design used was cross sectional design. The cross sectional design was used to establish whether there was a relationship between internal controls and revenue collection efficiency. Kothari (2004) describes cross sectional design as fact-finding enquiries, involving asking questions often in the form of a questionnaire of a large group of individuals, adding that the major purpose is description of the state of affairs as it exists at present and represent the findings and information statistically. Mugenda and Mugenda (1999) states that a cross sectional design determines and reports the way things are or answers questions concerning the current status of the subjects in the study.

3.3 Population of the study

The total number of water services providers operating under Athi Water Services Board is twelve. The entire 12 formed the target population for this study.

3.4 Sample Size and sampling Procedures

The entire target population of water service providers formed the sample size of the study. From each of the 12 water services providers, the researcher selected one respondent to respond to the questionnaire. The respondents were the Financial Accountants.

3.3 Data Collection Methods

Data was collected using both primary and secondary data collection techniques. According to Oso and Onen, (2008) questionnaires are a data collection technique in which the

respondents respond to the number of items in writing. Primary data was gathered through structured questionnaires using 5-point Likert scale to answer the questions on components of internal controls. This was done using open ended and close ended questionnaires. The questionnaires were administered on a drop and pick method. Secondary data on the other hand was gathered through review of available financial records like audited financial statements and other water services providers' publications. The period covered for secondary data was three years, that is, 2010/2011, 2011/2012 and 2012/2013.

3.4 Data reliability and validity

Reliability of data is important so as to yield accurate results which are going to be of better use. The issues addressed to evaluate the validity of the study included the likelihood that a question would be misunderstood or misinterpreted by the respondent and whether the instrument provided adequate coverage of a topic. The instruments like questionnaires used were thoroughly structured so as to make it more valid in collecting data. Information was collected through standard procedures and well-structured questions in order to enhance consistency. An expert opinion was also sought to verify the validity of the content. The final questionnaire was then used for data collection.

3.5 Data Analysis

The collected data was classified in accordance with variables. The statistical package for social science (SPSS) program was used to generate statistical and interpretation of results. SPSS was preferred because of its ability to cover wide range of most statistical and graphical data analysis and is systematic. Primary data was analyzed using descriptive statistical to establish the relationship between the internal controls on the company operational efficiencies and revenue collection efficiency.

Multiple linear regression analysis was used to analyze the data since it involves one dependent variable and multiple independent variables.

The regression equation used was of the form;

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e$$

Where

Y = Revenue collection efficiency

α = Constant

X_1 = Control environment

X_2 = Risk assessment

X_3 = Control activities

X_4 = Information and communication

X_5 = Monitoring

e = Error term.

The revenue collection efficiency was measured using the percentage change between the total amounts billed and the actual collected which as an indicator of how efficient a water services provider is in collecting its revenue.

Revenue Collection Efficiency =<u>Actual revenue collected</u> X100

Total amount billed

The higher this percentage, the more the water services providers are efficient. On the other hand, the smaller revenue collection efficiency indicates that despite a higher investment of resources, water services providers are not able to collect the revenue outstanding efficiently.

Control environment was measured by the way management assigns authority and responsibility and organizes and develops its people; and the attention and direction provided by the board.

Risk assessment was measured by the presence or absence of mechanisms within the organization to undertake credit risk assessment, fraud risk assessment, customer assessment, risk assessment and operational assessment.

Control activities are the policies and procedures that help to ensure that management directives are carried out. It was measured by the presence or absence of approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties.

Monitoring is aimed at ensuring that the internal controls continue to operate as intended. This can be achieved through ongoing monitoring or separate evaluations. Separate evaluations are non-routine monitoring activities such as period audits by the internal auditors. These were measured by the presence or absence of a strong internal audit function, ongoing monitoring, and continuous self-assessment. The Information and communication measurement area consists of efficiency, information and data reliability and availability and effectiveness

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 control systems and revenue collection efficiency in water services providers in Athi Water Services Board. The chapter concludes with a summary and interpretation of the findings.

4.2   Response rate

The research targeted 12 water services providers under Athi Water Services Board. Table 1.4 shows that out of the 12 questionnaires distributed, 9 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.

Questionnaires	Frequency	Percentage
Returned	09	75
Unreturned	03	25
Distributed	12	100

Table 1.4: Response Rate (Source: Author, 2014)

4.3 Respondents' Years of Existence

From the table 2.4 below, 11.1 % of the Water Service providers existed less than 5 years, 55.56% for a period between 5 to 10 years, and 33.3% more than 5 years**.**

Number of years	Frequency	Percentage
Less than 5 years	1	11.11
5 years to 10 years	5	55.56
Over 10 years	3	33.33
Totals	9	100

Table 2.4 Years of existence (Source: Primary Data)

4.4 Examining the functionality of the Control Environment

The study sought to establish, inter alia, how the Control Environment of the organizations actually performs. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the control environment on a scale of $1 - 5$. The mean ratings were computed as presented in the table 3.4 below.

	N	Minimum	Maximum	Mean	Std. Deviation
Management monitor implementation	9	1.00	5.00	2.8889	1.36423
Degree of integrity of management	9	2.00	5.00	3.3333	1.00000
Management feedback	9	1.00	4.00	3.0000	.86603
Ethical values	9	2.00	5.00	3.5556	1.01379
Accounts & financial management	9	4.00	5.00	4.6667	.50000
Valid N (list wise)	9				

Table 3.4: Mean and Standard deviation of Control Environment (*Source: Primary data*)

From Table 3.4 above, the respondents indicated that management closely monitors implementation of internal control as reflected by the mean value of 2.8889. The standard deviation of 1.3623 suggests varied responses regarding management's commitment to monitor implementation of internal control system. Further, respondents were not sure that management provides feedback to juniors as reflected by the mean value of 3. However, a significant standard deviation of 0.86603 suggests varied responses regarding management's commitment to provide feedback to juniors

The results of the study also revealed that management acts with integrity. This is evident when the mean of respondents as computed by the system is well above the average 3.3333. Nevertheless, the corresponding standard deviation of 1.0000 suggests that respondents had a significant variation in responses on management integrity in the execution of their role

Table 3.4 also indicates respondents were not sure that management provides feedback to juniors as reflected by the mean value of 3. However, a significant standard deviation of 0.86603 suggests varied responses regarding management's commitment to provide feedback to juniors. The study found that the respondents agreed that the organization has an accounting and financial management system in place with a mean value of 4.6667. However, the standard deviation of 0.5000 shows that there is a clear variation in the responses provided by the respondents about the existence of the accounting and financial management system. The analysis continues to reveal that, ethical values are upheld in all management decisions as reflected by a mean value slightly above average, 3. However, even then the respondents seemed to have varied responses regarding ethical values in all management decisions as revealed by a standard deviation of 1.01379.

4.5 Functionalities of the Control Activities

The study sought to establish, inter alia, how the control activities of the organizations actually perform. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the control activities on a scale of $1 - 5$. The mean ratings were computed as presented in the table 4.4 below

	N	Minimum	Maximum	Mean	Std. Deviation
Separation of roles	9	3.00	5.00	4.3333	.70711
Access to valuable information.	9	2.00	5.00	3.8889	1.45297
Employees rotation	9	1.00	3.00	2.1111	.78174
Supervision by staff	9	2.00	5.00	3.7778	.83333
Revenue Reconciliation	9	3.00	5.00	3.8889	1.05409
Valid N (list wise)	9				

Table 4.4: Mean and standard deviation of Control Activities (Source: Primary data)

The results of the study from the table above, suggest that respondents agreed there is a clear separation of roles while executing their duties. This is shown by a mean of 4.3333. However a significant standard deviation of 0.70711 is a clear manifestation of varied responses from respondents as far as clear separation of roles is concerned. Mawanda (2008) has suggested that segregation of roles such that no one person should handle all aspects of a transaction from the beginning to the end. The respondents disagree with the reconciliation of collected revenue. This is revealed by a mean value of 3.8889. However, a significant standard deviation of 1.05409 suggests that respondents varied greatly in their responses to the test statement. The failure by the management to have an independent body to reconcile its collection could result to over reporting of collection. The respondents strongly agreed that, it is impossible for staff to have access to valuable information without the consent of senior staff. This is revealed by a mean value of 3.8889 although the standard deviation of 1.45297

indicates the respondents varied greatly as far as this matter was concerned. The respondents agreed that there is appropriate supervision of junior staff by their seniors. This is revealed by a mean value of 3.778. The standard deviation of 0.8333 reveals that there were varied responses from the respondents interviewed. Mawada (2008) says that the lack of supervision by senior staff is an indication of deficiencies in supervision strategy which if not addressed may lead to material internal control weaknesses

Senior staff as respondents disagreed that controls are in place to ensure periodically rotation of employees to different locations. This is revealed by a mean value of 2.1111 which is very close the average of 3 as shown in table 4.4 above. However, the deviation of 0.78174 suggests varied responses from the respondents interviewed.

4.6 Monitoring

The study sought to establish, inter alia, how monitoring of the organizations actually perform. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the monitoring on a scale of 1 – 5. The mean ratings were computed as presented in the table 5.4 below:

	N	Minimum	Maximum	Mean	Std. Deviation
Board approval	9	1.00	4.00	2.8889	.78174
Inventory	9	3.00	5.00	3.6667	.70711
Trend of affairs	9	1.00	3.00	1.8889	.60093
Assessment of ICS	9	2.00	4.00	2.8889	.78174
Reviews of report	9	3.00	5.00	4.3333	.86603
Valid N (list wise)	9				

Table 5.4: Mean and standard deviation of monitoring (Source: Primary data)

The results of the study as reflected in table 5.4 suggest that respondents were not sure whether the board approves all activities that review internal controls. This is revealed by a mean value of 2.8889. However, a significant standard deviation of 0.78174 suggests that respondents varied greatly in their responses to the test statement. The respondents said that inventory is regularly checked. This is revealed by a mean value of 3.6667. However, a significant standard deviation of 0.70771 suggests that respondents varied greatly in their responses. The results of the study as reflected in table 4.5 suggest that respondents disagreed that they easily observe the trend of affairs. This is reflected by a mean value of 1.8889. However, a significant standard deviation of 0.60093 suggests that respondents varied greatly. This means that problems are realized when things have already moved out of hand. The results suggest that respondents were not sure that appropriate action is normally taken by management to assess the system from time to time as revealed by the mean of 2.8889. The standard deviation of 0.178174 provided by the same respondents suggests that they possess varied understanding about the aspect of the assessment of system from time to time. The results of the study continue to suggest that respondents strongly agree there are regular and periodic reviews of collection before the end of year report. This is revealed by a mean value of 4.3333. However, a significant standard deviation of 0.86603 suggests that respondents varied greatly in their responses.

4.7 Internal audit functionalities

Internal audit involves investigating and appraising internal controls and the efficiency with which the various units of the organization are performing their assigned functions. The study sought to establish, inter alia, how internal audit functionalities of the organizations actually perform. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the internal audit functionalities on a scale of 1 – 5. The mean ratings were computed as presented in the table 4.6 below

	N	Minimum	Maximum	Mean	Std. Deviation
Regular audit activities	9	3.00	5.00	4.2222	.83333
Autonomy & Independence	9	3.00	4.00	3.1111	.33333
Improvement of ICS	9	2.00	4.00	3.2222	.66667
Weakness of ICS	9	2.00	5.00	3.0000	1.00000
Risk & loss identification	9	1.00	5.00	2.6667	1.22474
Valid N (list wise)	9				

Table: 6.4 Mean and Standard deviation of internal audit (Source: Primary data)

The results of the study as reflected in table 6.4, suggest that respondents strongly agree the internal audit staff conduct regular audit activities. This is revealed by a mean value of 4.2222 Also the standard deviation of 0.83333 shows the respondents has different views. The respondents were not sure whether the internal auditors perform duties with greater degree of autonomy and independence as reflected by the mean of 3.1111 and the standard deviation of 0.3333. The results of the study in table 4.6 continue suggest that respondents were not sure that internal auditor make appropriate recommendations for management to improve the internal control system as revealed by the mean 3.2222. Although the standard deviation of 0.666667 provided by the same respondents suggests that they possess varied understanding about the aspect of the appropriate recommendations to management about internal control system. The results continue to show that respondents were not sure that internal audit makes appropriate recommendations for management to improve the internal control system as revealed by the mean 3.0000, although the standard deviation is 1.0000. A mean of 2.66667 and standard deviation of 1.22474 shows varied response among the

respondents who disagreed as to the awareness of identification of revenue loss and risk by the management.

4.8 Information and Communication

The study sought to establish, inter alia, how information and communication of the organizations actually perform. The respondents were asked to rate their levels of agreement with various statements which were used as indicators of the information and communication on a scale of 1 − 5. The mean ratings were computed as presented in the table 4.7 below

	N	Minimum	Maximum	Mean	Std. Deviation
Computerized Account system	9	4.00	5.00	4.5556	.52705
Checks on system	9	2.00	4.00	3.3333	.70711
Password	9	1.00	5.00	2.3333	1.80278
channels of comm.	9	1.00	4.00	2.7778	.97183
Management receives	9	2.00	4.00	3.2222	.66667
Valid N (list wise)	9				

Table: 7.4 Mean and Standard deviation of information and communication (Source: Primary data)

From the table 7.4, the respondents strongly agreed that they have computerized accounting system. This is revealed by a mean value of 4.5556. However, a significant standard deviation of 0.52705 suggests that respondents varied greatly in their responses. The respondents had varied responses on whether system is regularly checked. This is showed by the mean of 3.3333 and the standard deviation of 0.70711. The mean of 2.33333 and standard deviation of 1.80278 shows response from the respondents strongly disagree of staff sharing of password to unauthorized personnel.

In as much as there are good channels of communication, most respondents are not sure of procedures for individuals to report suspected breaches of laws, this is revealed by the mean of 2.7778 and standard deviation of 0.97183. There were also varying response as to the

timeliness of receipt of relevant and reliable reports for decision making with a mean of 3.22222 and standard deviation of 0.66667. Majority of the respondents were not sure as to whether management receives timely, relevant and reliable reports for decision making.

4.9 Regression Analysis

A multiple regression analysis was conducted in order to determine the relationship between internal control system and revenue collection efficiency. The regression model was as shown below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where;

Y = Revenue collection efficiency

α = Constant

X_1 = Control environment

X_2 = Internal audit

X_3 = Control activities

X_4 = Information and communication

X_5 = Monitoring

e = Error term

Regression analysis also produced correlation and coefficient of determination. Correlation sought to show the nature of relationship between dependent and independent variables and coefficient of determination showed the strength of the relationship.

The secondary data from the financial year 2010 to 2013 was used in the analysis. Multivariate Regression analysis was used to analyze the data

4.9.1 Year 2010/2013

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890[a]	.780	.760	.69589

Table 8.4 Model Summary for year 2010/2013 (Source: Author, 2014)

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.760 an indication that there was variation of 76% on revenue collection efficiency of water services providers in Athi water services board due to changes in the independent variable which are control environment ,control activities, monitoring ,internal audit and information technology at 95% confidence interval. This shows that 76% changes in revenue collection efficiency of water services providers could be accounted for control environment, control activities, monitoring, internal audit and information technology. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a positive relationship between the study variable as shown by 0.69589

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	.616	5	0.523	.430	.0808[b]
1	Residual	.347	3	0.116		
	Total	.963	8			

Table 9.4 Analysis of Variance(*Source: Author 2014)*

a. Dependent Variable: RCE
b. Predictors: (Constant), Information Technology, Monitoring, Control environment, Control activities, Internal audit

ANOVA statistics was conducted to determine the differences in the means of the dependent and independent variables thus showing whether a relationship exists between the two. The P-value of 0.0808 implies that RCE has significant joint relationship with control environment, control activities, monitoring, internal audit and information technology is significant at 5 percent level of significance. This also depicts the significance of the regression analysis done at 95% confidence level.

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.170	.630		1.4892	.045
Control Environment	.530	.401	.035	1.390	.608
Control Activities	.400	.030	.049	.2701	.501
Monitoring	-.130	.070	-.540	-.563	.451
Internal Audit	.340	.035	.058	.4082	.486
InfoTech	-.307	.099	-.166	-.0225	.678

Table 10.4 Coefficients for 2010/2013 (Source: Author 2014)

From the data in the above table the established multivariate regression equation for year 2010/2013 was

$$Y = 0.1700 + 0.53X_1 + 0.40X_2 - 0.13X_3 + 0.340X_4 - 0.307X_5$$

The researcher conducted a regression analysis so as to determine the effect of the independent variables (Control environment, control activities, monitoring, internal audit and

From the above regression equation it was revealed that holding Control environment, control activities, monitoring, internal audit and information technology of water services providers to a constant zero the revenue collection efficiency would stand at 17%. A unit increase in control environment would lead to increase in revenue collection efficiency of water service providers under Athi water services board by 53%. A unit increase in control activities would

lead to increase revenue collection efficiency by a factor of 40%. A unit decrease in monitoring would lead to decrease revenue collection efficiency by a factor 13%. A unit increase in internal audit would lead to increase revenue collection efficiency by a factor 34% and further, a unit decrease in information of technology would lead to decreased revenue collection efficiency by a factor of 30.7%

4.10 Interpretation of Findings

From the finding the study revealed that there was variation of revenue collection efficiency in water services providers under Athi water services providers due to changes in the independent variable which are control environment, control activities, monitoring, internal audit and information technology. The study found that there was a strong relationship between internal control system and revenue collection efficiency. The study found that there was a positive relationship between Control Activities, internal audit and control environment of water services providers under Athi water services board and negative relationship between information technology and monitoring.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter present summary of the findings, conclusions, study recommendations, limitations of the Study and suggestions for further study. From the analysis and data collected, the following discussions, conclusion and recommendations were made. The researcher had intended to find the relationship between internal control system and revenue collection efficiency of water services providers under Athi Water Services Board.

5.2 Summary of Findings

From the findings, the study revealed that there was variation of revenue collection efficiency in water services providers under Athi Water Services Providers due to changes in the independent variable which are control environment, control activities, monitoring, internal audit and information technology. The further study revealed that control activities, internal audit and information technology were the major factors influencing the revenue collection efficiency in water services providers.

From the finding on the correlation analysis the study revealed that there was a strong relationship between control environment, control activities, monitoring, internal audit, and information technology and revenue collection efficiency. The study also found that the coefficients of the control activities, control environment, internal audit and were positive an indication that a unit increase in these variables would lead to an increase in revenue collection efficiency of water services providers under Athi Water Services Board. The coefficients on information technology and monitoring indicate that a unit decrease in these variables would lead to a decrease in revenue collection efficiency

5.3 Conclusions

The conclusion therefore was that there exists strong relationship between revenue collection efficiency of water services providers and control environment, control activities, monitoring, internal audit and information technology.

It was established that internal controls were in place but there was need for more follow-up by management to ensure the implementation takes place

5.4 Recommendations

Stable laws, policies, regulations and procedures should be instituted and be made known to the employees to guide them in their employment. A lot of efforts should be put into consideration especially on some elements such as authorization, supervision, observation, and re–calculate, integrity and compliance with laws and regulations although there are others. Appointment letters containing schedule of duties should be given to employees to guide them in their employments and should be seen that it is followed

5.5 Limitations of the Study

There were challenges encountered during the study. Some companies had not submitted their Annual financial result to AWSB. The study was based on a three year study period o financial year from the year 2010 to 2013. A longer duration of the study will have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence given a broader dimension to the problem

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 Athi water services board.

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

REFERENCE

ACCA (2009/2010).Advanced Audit and Assurance; Kaplan Publishing

Akech, J. M. M. (2007). *Governing Water and Sanitation in Kenya: Public Law, Private Sector Participation and the Elusive Quest for a Suitable Institutional Framework* .Conf .International Environmental Law Research Center, Geneva 20-21 April 2009

Athi Water Services Board (2009). [AWSB] *Athi Water Services Board Draft Informal Settlements Policy*. Nairobi: Athi Water Services Board.

Amudo, A. & Inanga, E. L. (2009). Evaluation of internal control systems: A case study from Uganda. *International Research Journal of Finance and Economics*, 3, 124 –144

Aikins, S. K. (2011). An examination of government internal audits' role in improving financial performance. *Public Finance and Management*, 11(4), 306-337.

Aldridge, R. & Colbert, J. (1994). Management's report on internal control, and the Accountant's response. *Managerial Auditing Journal*, 9(7), 21-28.

Brealey, R.A., Myers, S.C & Marcus, A J. (2009). Fundamentals of Corporate Finance. 6th ed. McGraw –Hill

Jensen, M. (1983). *"Value Maximization, Stakeholder theory and the corporate objective Function" Corporate Governance at the Cross roads: a book of Readings.*, New York: McGraw Hill.

Kothari C. R. (1990).*Research Methodology, Methods and Techniques,* 2nd Revised Edition. New Age International Publishers.

Moraa, H., Albert Otieno, A. and Salim, A. (2012). *Water governance in Kenya: Ensuring Accessibility, Service delivery and Citizen Participation* .Nairobi: Hub Research

Mumma, A., Lane, M., Kairu, E., Tuinhof, A. and Hirji, R. (2011). *Kenya, Groundwater Governance case study*. Washington, DC: World Bank

Mwangi L. (2011).Internal Controls: The case of Alexander Forbes Financial Services of
(E.A) Ltd,MBA,University of Nairobi

Mugenda, A.G. (2008). Social science research:*applied research and traning.*.

Ray W.O & Kurt P. (2001).Principles of Auditing and Other Assurance Services.
Irwin/McGraw- Hill. New York

Rezaee, Z., Elam, R. & Sharbatoghlie, A. (2001). Continuous auditing: The audit of the
future. *Managerial Auditing Journal*, 16(3), 150-158.

Rick H., (2005). Principles of Auditing:Pearson Education Limited.Financials
(2005).Available at: http://www.sap.com/usa/solutions/business

Sudsomboon, S. & Ussahawanitchakit, P. (2009). Professional audit competencies: the
effects On Thai's CPAS audit quality, reputation, and success. *Review
of Business Research,* 9(3), 66 – 85.

Salim M.A. (1983).Internal Controls: The Case of Ethiopian Airline, Nairobi .MBA
Management Project, University of Nairobi.

Sudsomboon, S. & Ussahawanitchakit, P. (2009). Professional audit competencies: the

effects   On Thai's CPAS audit quality, reputation, and success.

Review of Business Research, 9(3), 66 – 85

Theofanis, K., Drogalas, G. & Giovanis, N. (2011). Evaluation of the effectiveness of
internal audit in Greek Hotel Business. *International Journal of
Economic Sciences and Applied Research*, 4(1), 19-34
.
United Nations Human Settlements Programme [UN-HABITAT.]. (2011). *Water and
Sanitation Trust Fund Impact Study Series. Kenya Country Impact
Study*. Nairobi:UN-HABITAT.

WASREB. (2009). *Water and Sanitation Coverage. Sub-Sector Issue No 3*. Nairobi: WASREB

WASREB Impact Report, (2012). *A performance Report of Kenya's Water Services Impact Report*. Nairobi: WASREB

World Bank (2010).*The Africa Utility Performance Assessment.* .Washington DC: World Bank

APPENDICES

APPENDIX I: QUESTIONNAIRE

Introduction

This questionnaire has been designed to collect data on the relationship between internal control system and revenue collection efficiency. Information provided herein will be used solely for academic research purpose.

Section A:

PROFILE OF THE ORGANIZATION

1. Name of the Water Service Provider……………………………………………………

2. Period of Existence ………………………………………………………………………

| Less than 5 Years |
| 5 years to 10 years |
| Over 10 years |

Section B

To examine the functionality of Internal Control systems of water services providers under Athi water services board

Please rank the following statement ranging from strongly disagree to strongly agree

Where; 1= strongly disagree 2= disagree 3= not sure 4= agree 5= strongly agree

Control Environment

		1	2	3	4	5
1	The management closely monitor implementation of internal control systems in your organizations					
2	The management act with a great degree of integrity in execution of their roles					
3	The management provide feedback to the junior officers about the operation of the system					
4	Ethical values are upheld in all management decisions					
5	The organization have an accounting and financial management system					

Control activities

		1	2	3	4	5
1	Our organization has clear separation of roles					
2	There is appropriate supervision by senior staff on the work of their juniors					
3	It is impossible for one staff to have access to all valuable information without the consent of senior staff					
4	Independent reconciliations of revenue collection on regular basis is done					
5	There is a system in place to ensure that employees are rotated periodically					

Monitoring

		1	2	3	4	5
1	The board, or a board committee, approve the scope of all internal activities that review internal controls					
2	The inventory are regularly checked					
3	You easily observe the trend of affairs in your organization					
4	Management assess the system of control from time to time					
5	There are regular and periodic reviews of collection before the end of year report					

Internal audit

		1	2	3	4	5
1	Internal audit staff conduct regular audit activities in our organization					
2	The internal auditor perform his duties with a greater degree of autonomy and independence from management					
3	The internal auditor make appropriate recommendations for management to improve the internal control system					
4	The internal audit report address weaknesses in your internal control system					
5	Revenue loss and risks have been identified by management					

Information and Technology

		1	2	3	4	5
1	The company have computerized accounting system					
2	There is a regular check up on your system in various departments to ensure frauds are not committed					
3	The staff share password to unauthorized personnel to access information of the company finances					
4	There are established channels of communication for individuals to report suspected breaches of laws or regulation or other improprieties.					
5	Management receives timely, relevant, and reliable reports for decision-making					

Section C

Kindly, explain briefly on the following questions about internal control.

a) What are some of the problems associated with internal control at your organization?

……………………………………………………………………………

…………………………………………………………………………….

…………………………………………………………………………

…………………………………………………………………………

b) What do you think can be done to improve on internal controls your organization?

…………………………………………………………………………..

…………………………………………………………………………

……
……………………………

……
………………………

THANK YOU VERY MUCH FOR YOUR TIMELY RESPONSE

APPENDIX 11 Water Services Providers under Athi Water Services Board

1. Nairobi City Water and Sewerage Co

2. Kiambu Water & Sewerage Co. Ltd

3. Gatundu South Water & Sanitation Co Ltd

4. Karimenu Community Water & Sanitation Co Ltd

5. Gatanga water and Sanitation company ltd

6. Limuru Water & Sewerage Co Ltd

7. Kikuyu Water Co Ltd

8. Ruiru-Juja Water & Sewerage co Ltd

9. Thika Water & sewerage Co. Ltd

10. Runda Water & Sewerage Co Ltd

11. Githunguri Water & Sanitation Co Ltd.

12. Karuri Water and Sanitation company Ltd