

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

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**A PROPOSAL SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE IN FINANCE AND ACCOUNTING OF
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DECLARATION

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

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APPROVAL BY UNIVERSITY SUPERVISORS

We confirm that the work reported in this proposal has been carried out by the candidate under our supervision

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Date.....

Dr.

Signature.....

Date.....

Dr.

DEDICATION

I dedicate this work to the Almighty God and to my wife Cate and our daughter Baby Leana for their encouragement and support throughout my studies

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ACRONYMS AND ABBREVIATIONS

IAF Internal audit function

ROA Return on Assets

WSPs Water Services Providers

OPERATIONAL DEFINITION OF TERMS

Budget variance analysis: the difference between the budgeted or baseline amount of expense or revenue, and the actual amount (Abioro, 2013).

Cash reconciliations: the process of verifying the amount of cash in a cash register as of the close of business. The verification can also take place whenever a different clerk takes over a cash register (Amaka, 2012).

Financial Performance: the process of quantifying the efficiency and effectiveness of an action. Organizational performance is achieved by comparing the value that an organization creates using its productive assets with the value that owners of these assets expect to obtain (Armstrong & Baron, 2005).

Inventory audits: an accounting procedure designed to keep track of a company's products and merchandise (Eighme, & Cashell 2012).

Segregation of duties: the concept of having more than one person required to complete a task. In business the separation by sharing of more than one individual in one single task is an internal control intended to prevent fraud and error (Gordon, & Miller, 1976).

ABSTRACT

The purpose of this study is to determine the effect of internal controls on financial performance of public water companies in Kenya. Specifically, the study aims to: establish the effect of segregation of duties on financial performance of public water companies in Kenya, determine the effect of cash reconciliations on financial performance of public water companies in Kenya, evaluate the effect of inventory audits on financial performance of public water companies in Kenya, examine the effect of cost management on financial performance of public water companies in Kenya. The study will use a descriptive survey study research design. The population of the study will be 65 chief internal auditors in Urban WSPs in Kenya as at December 2014. The study will conduct a purposive sampling of the 60 chief internal auditors in Urban WSPs. The study will use primary which will be obtained by use of structured questionnaires. After quantitative data is obtained through questionnaires, it will be prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed into statistical package for social sciences (SPSS) computer software for analysis. The particular descriptive statistics will include frequencies and percentages while the particular inferential statistics will include correlation analysis and regression. Correlation analysis will establish the association between the variables while a multiple linear regression model will be used to test the significance of the influence of the independent variables on the dependent variable.

CHAPTER ONE

1.0 Introduction

This chapter entails background of the study, statement of the problem, purpose of the study, objectives, research objectives, scope and significance of the study.

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 financial performance of water companies (Matata, 2015).

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 (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. However 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 (Magara, 2013).

1.2 Statement of the Problem

Water service provision is poorly managed in the developing countries. Lack of management structures and corporate governance has resulted in poor performance of these entities. 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 (Ray and Kurt, 2011).

In addition 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).

Odei (2011) examined the internal control procedures in Papsos Ghana Limited, to assess the effectiveness of internal controls in Papsos Ghana Limited, Jean (2014) undertook a study to determine if internal audit lead to the business growth, Carl (2013) examined whether the results of external audits may be used as an objective measure of internal audits' benefits, Mbuti (2014) determined the effect of internal audit reporting on financial performance of SACCOs, Ondieki (2013) determined the effect of internal audit on financial performance in commercial banks in Kenya. As observed from the reviewed previous empirical studies, there are limited studies that focus on internal controls in the public water companies in Kenya. A contextual knowledge gap therefore exists. It is against this background that this study sought to evaluate the effect of internal controls on financial performance of public water companies in Kenya.

1.3 Research Objectives

1.3.1 General Objective

To determine the effect of internal controls on financial performance of public water companies in Kenya

1.3.2 Specific Objectives

- i. To establish the effect of segregation of duties on financial performance of public water companies in Kenya
- ii. determine the effect of cash reconciliations on financial performance of public water companies in Kenya
- iii. To evaluate the effect of inventory audits on financial performance of public water companies in Kenya
- iv. To examine the effect of cost management on financial performance of public water companies in Kenya

1.4 Research Questions

- i. What is the effect of segregation of duties on financial performance of public water companies in Kenya?
- ii. What is the effect of cash reconciliations on financial performance of public water companies in Kenya?
- iii. What is the effect of inventory audits on financial performance of public water companies in Kenya?

- iv. What is the effect of cost management on financial performance of public water companies in Kenya?

1.5 Scope of the Study

This study will be limited to establishing the effect of internal controls on financial performance of public water companies in Kenya. ROA will be used as the proxy for financial performance. The population of the study will be 65 Urban WSPs in Kenya as at December 2014. The study will use a descriptive survey study research design. The study will be conducted in the year 2016.

1.6 Significance of the Study

The study is intended to benefit the following:

Water Services Providers (WSPs) - who will obtain details on how internal controls can help find lasting solutions to numerous external and internal financial challenges which hinder effective water service delivery. The study findings will be of immense importance in the sense that they will assist management of public water companies to realize how internal controls can affect its operations and financial performance.

Academicians and researchers- this study is intended to add knowledge to previous studies done on internal controls by primarily focusing on water service delivery. The study shall therefore serve as a reference for further research on the topic of relationship between internal controls and financial performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented past literature with regard to effect of internal controls on financial performance. The theoretical review guided the framework of the study and aided in the clarity of the study perspective. The conceptual framework explained the relationships between variables of the study.

2.2 Theoretical Review

Various theories have been formulated on internal controls and financial performance. They include Agency theory; contingency theory and Lending credibility theory. These are discussed below

2.2.1 Agency Theory

Agency theory is concerned with resolving problems that can exist in agency relationships; that is, between principals and agents of the principals (Meckling and Jensen, 1976). A reputable auditor is therefore appointed not only in the interest of third parties, but also in the interest of management. The two problems that agency theory addresses are: the problems that arise when the desires or goals of the principal and agent are in conflict, and the principal is unable to verify what the agent is actually doing and the problems that arise when the principal and agent have different attitudes towards risk. Because of different risk tolerances, the principal and agent may each be inclined to take different actions (Meckling and Jensen, 1976).

Agency theory contends that internal auditing, in common with other intervention mechanisms like financial reporting and external audit, helps to maintain cost-efficient contracting between owners and managers (Adams, 1994; Davidson, Goodwin-Stewart and Kent, 2015). Agency theory may not only help to explain the existence of internal audit in organizations but can also help explain some of the characteristics of the internal audit department, for example, its size, and the scope of its activities, such as financial versus operational auditing. Agency theory can be employed to test empirically whether cross-sectional variations between internal auditing practices reflect the different contracting relationships emanating from differences in organizational form (Meckling and Jensen, 1976).

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). 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 incorporating 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 Berger and 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 labor 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 Empirical Literature Review

This section will focus on how the independent variable relate to the dependent variable.

2.3.1 Effect of Segregation of Duties on Financial Performance

Amaka (2012) determined the relationship between internal measures to proper accounting records. A survey research design was adopted for this research study and a sample size was selected using Yaro Yamane sampling technique as data used were obtained from both primary and secondary sources. Four research questions were formulated out of which three hypothesis were formulated using regression co-efficient analysis method at 5% level of significance and the Z table was also used for comparison between calculated value of significance B and table value. The finding from the analysis indicates that internal control measure management performance and is necessary for the growth and effectiveness of the organization.

Abdi (2015) investigated the impact of internal control system on financial performance in Mogadishu private banks. The demographic profile of the respondents was age, gender, qualification and experience. The main objectives were to assess the functionality of internal control systems in Mogadishu private banks and to examine financial performance of private

banks in Mogadishu. The study was based on 33 target population especially Accountants, finance directors, chief cashiers, internal auditors and managers of private banks in Mogadishu. Descriptive analysis was used. It administers questionnaire as a research instrument. The findings of this study reveal that majority of the private banks in Mogadishu has enough cash to meet its intended goals. Also there is a clear separation of duties. This study suggests that the internal auditors perform their duties fast, efficient and reliable.

Mwakimasinde, Odhiambo and Byaruhanga (2014) investigated the effect of internal control systems on the financial performance of sugarcane outgrower companies in Kenya. The study adopted a descriptive correlational survey design. All the sugarcane outgrower companies were studied. Both the primary and secondary data was collected. Primary data was collected from the key informants from all the nine outgrower companies in Kenya using questionnaires. Secondary data was extracted from annual reports, publications and document analysis. The key informant's method was used, hence, all the Finance Managers and heads of internal audit for every outgrower company were selected to take part in the study. The data collection instruments were administered to all the nine sugarcane outgrower institutions. The data was analysed using statistical package for social scientists (SPSS) computer software version 19.0 to generate cumulative frequencies and percentages. The study found a positive significant effect of internal control system on the financial performance

Nyakundi, Nyamita and Tinega (2014) investigated the effect of internal control systems on financial performance among Small and Medium scale Enterprises in Kisumu city, Kenya; specifically assessing the relationship between internal control systems and return on investment;

and establishing the level of business knowledge of an entrepreneur in internal control systems and its effect on financial performance. The sample was selected from the study population through stratified and simple random sampling techniques. The research was conducted using both quantitative and qualitative approaches; adapting cross-sectional survey research design. The study used both primary and secondary data. Primary data was collected using structured questionnaire and interview, while secondary data was obtained from financial statements of the sampled enterprises. Data was analyzed using descriptive statistics as well as inferential statistics. The study specifically revealed that a significant change in financial performance is linked to internal controls systems. Based on the findings of the study, it is concluded that internal control systems as supported by the study findings significantly influence the financial performance of public water companies in Kenya.

Njanike, Mutengezanwa and Gombarume (2011) assessed factors that influence the internal controls in ensuring good corporate governance in financial institutions in developing economies with special reference to Zimbabwe. The research paper assessed how lack of internal controls affected good corporate governance and aimed to bring out elements of good corporate governance. It emerged that failure to effectively implement internal controls contributed significantly to poor corporate governance. The study discovered that internal control system overrides and the issue of “fact cat” directors also contributed to poor corporate governance.

2.3.2 Effect of Cash Reconciliations on Financial Performance

Hamza, Mutala and Antwi (2015) assessed cash management practices and its effect on the financial performance of SMEs in the Northern Region of Ghana. The study adopted a descriptive cross-sectional survey research design which allowed the collection of primary quantitative data through structured questionnaires. The target population was 1000 owner/managers of SMEs. Stratified random sampling technique was used to obtain a sample of 300 SMEs comprising 164 trading 26 manufacturing, 10 hairstyling, 62 dressmaking, and 38 carpentry enterprises. The data was analyzed using both descriptive and inferential statistics. The study revealed that SME financial performance was positively related to efficiency of cash management (ECM) at 1 per cent significance level. The study concluded that cash management practices have influence on the financial performance of SMEs, hence there was need for SME managers to embrace efficient cash management practices as a strategy to improve their financial performance and survive in the uncertain business environment.

Wanjala (2015) assessed the effect of cash management practices on Matatu Sacco growth in Kimilili Sub- County. The study objectives were; to establish the effect of cash budgeting as a cash management practice on matatu Sacco growth; to establish the effect of cash control as cash management practice on Matatu Sacco growth. The target population of the study was 169 Matatu Sacco owners/ members. The study used a descriptive research design. The study employed both closed ended structured questionnaires and open ended unstructured questionnaires. Stratified and Random sampling techniques were used in determining a sample size of 34 Matatu Sacco members owners Both descriptive and inferential Statistics were used in

the study. Frequency distribution tables and percentages were used to present raw data for interpretation. Regression analysis was performed to establish the relationship between cash management practices and Matatu Sacco growth. A statistical package for social sciences was used in analyzing data. The findings of the study were cash management practices make a significant contribution to the growth of Matatu Saccos.

Avika and Hari (2014) identified the cash management challenges faced by small businesses in a developing community. This research targeted small retail businesses in the Tongaat area in KwaZulu-Natal, South Africa. The research design for this paper was descriptive, quantitative and cross-sectional. The data instrument was a questionnaire. These findings indicate a significant relationship between cash management knowledge and managing cash flow. The findings also indicate a correlation between profitability in the business and implementation of cash management practices as well as a correlation between the challenges of cash management practices and their ability to ensure profitability in their business.

Njeru et al., (2015) explored the effect of cash management on financial performance of deposit taking SACCOs in Mount Kenya Region. The target population was all the thirty licensed deposit taking SACCOs in Mount Kenya Region, the sampling technique employed was simple random sampling and the sample size was 92 respondents. This study adopted a descriptive survey in soliciting information on effects of liquidity management on financial performance of deposit taking SACCOs in Mount Kenya region. Primary quantitative data was collected by use of self-administered structured questionnaires. The researcher also used secondary data derived from the audited financial statement of the SACCOs and the regulator (SASRA). The data

collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The researcher concluded that there is need to introduce cash management controls in the SACCOs, there is need to better strengthen the role of SASRA and increase its awareness, there is need to introduce credit management policy and finally increase the monitoring role of the government through its regulator in the sector since the sector plays a critical role on the achievement of vision 2030 and improved economic development of the members.

Abioro (2013) examined the impact of cash management on the performance of manufacturing companies in Nigeria-A study of Cadbury Nigeria Plc. The researcher used both secondary and primary data for data collection. For clear analysis, the study centres on two broad variables; the dependent variable which is performance and the independent variable which is Cash management. Two different hypotheses were formulated and tested using descriptive statistics and correlation coefficients techniques respectively in order to establish whether there is a significant relationship between cash management, performance and liquidity. The results of the study suggested that a significant relationship exists between cash management on performance of manufacturing companies in Nigeria.

2.3.3 Effect of Inventory Audits on Financial Performance

Wambua, Okibo, Nyang'au and Ondieki (2015) investigated the effects of the management of warehousing inventory systems on Seventh day Adventist institution's financial performance in Kenya. The main objective is to evaluate the effects of inventory warehousing systems on Seventh Day Adventist Institution's financial performance. The specific objective that guided

this research was to assess the effect of Inventory warehousing systems on the financial performance of Adventist Book Centers. The researcher used descriptive research design in undertaking this study. The target population was 216 employees at HHES while sample size was 30% of the target population totaling to 64 employees. The sampling design adopted was be stratified random sampling because population is heterogeneous. Data was analyzed by use of statistical package for social science (SPSS) regression and correlation. Data was then presented using tables and figures. The empirical results revealed a positive significant relationship between financial performance and Inventory warehousing system

Mukopi and Iravo (2015) examined the effect of inventory management on performance of the procurement function of sugar manufacturing companies in the western sugar belt. Descriptive research design, specifically a survey study was employed in carrying out the research. The target population of the study consisted of a sample of procurement personnel of Mumias Sugar Company, West Kenya Sugar Company, Nzoia Sugar Company and Butali Sugar Mills which was 30 procurement personnel out of the total target population that was 100 procurement personnel. The research instrument was structured questionnaires that were self administered to the respondents. Data was analyzed using SPSS and presented in tables and charts. The ANOVA result for all variables indicated that there is a strong relationship between the four variables; lean inventory systems, strategic supplier partnerships, information technology, legal policies and the effect of inventory management on performance of the procurement function of sugar manufacturing companies.

Duru, Okpe and Udeji (2014) examined the impact of inventory management practices on the financial performance of engineering firms in Nigeria. Because of the huge inventories maintained by most firms, a considerable sum of an organization's fund is being committed to them. Thus it becomes absolutely imperative to manage inventories efficiently so as to avoid the costs of changing production rates, overtime, sub-contracting, unnecessary cost of sales and back order penalties during periods of peak demand. The research survey was conducted in all the five selected engineering firms from the period 2009-2014. Secondary data was obtained from Annual Reports of the companies under study. Correlation analysis was used to determine the nature and magnitude of the relationship among inventory management variables. The results indicate that there exists a positive correlation between inventory management and Return on Asset and also with Return on Equity which were found to be statistically significant.

Lwiki et al., (2013) examined the impact of inventory management practices on the financial performance of sugar manufacturing firms in Kenya, by analyzing the extent to which lean inventory system, strategic supplier partnership and technology are being applied in these firms. The research survey was conducted in all the eight operating sugar manufacturing firms from the period 2002-2007. The primary data was collected using structured and semi-structured questionnaires administered to key informants in the organizations. Secondary data was obtained from annual financial performance statements available in the year Book sugar statistics. Descriptive statistics was used to test the impact of inventory management practices and Correlation analysis was used to determine the nature and magnitude of the relationship among inventory management variables. The results indicate that there exists a positive correlation between inventory management and Return on Sales and also with Return on Equity.

2.3.4 Effect of Cost Management on Financial Performance

Gichuki, (2014) conducted a study on the effect of cost management strategies on the financial performance of manufacturing companies listed on the Nairobi securities exchange. This study sort to find the effects of selected strategies namely; supply chain management, labour management and stock management and their effects on financial performance of manufacturing companies. The study used causal research design specifically multi variance linear regression model. It studied effects of various variables on another and the extent of causation was documented. Study population was six out of eight manufacturing companies listed, on Nairobi security exchange. The two were accepted due to inaccessibility of data. The variables were positively related to financial performance of the manufacturing companies. The study recommended of the management focused on managing cost of distribution, cost of labour and cost of stock. That is ensuring just enough stock is available, the supply chain is reasonable and labor is minimal and efficient.

Oluwagbemiga, Olugbenga, and Zaccheaus (2014) conducted a study on cost Management Practices and Firm's Performance of Manufacturing Organizations. This study investigated the relationship that exists between cost management practices and firm's performance in the manufacturing organizations using data from 40 manufacturing companies listed on the Nigeria stock exchange during the period of 2003 to 2012. Four hypotheses were formulated for the study and tested using t-statistic. The study relied on secondary data extracted from the audited financial statement of the selected companies. Direct material cost, direct labour cost, production overhead cost and administrative overhead cost were taken as independent cost management

variables while profitability (Operating profit) was taken as dependent variable representing the firm's performance. The result indicated that a positive significant relationship exists between cost management practices and firm's performance in the manufacturing organization. It is therefore recommended that a cost reduction strategy with emphasis on production overhead cost and administrative overhead cost should be embarked upon if their profit maximization and wealth creation objective must be achieved.

Nyayiemi, (2013) conducted study on factors affecting housing maintenance management cost in Kakamega municipality, Kenya. The study argued that maintenance costs cover the overall cost or budget, which is allocated to keep the building to its best performance, or to retain the building in good condition. It has been noted that the main objective of maintenance management organization was to ensure the required or acceptable standards and level of services provided in the building continuously at the minimum cost. This research sought to establish the factors affecting housing maintenance management cost in Kakamega Municipality, Kenya. The study objectives were to establish the effect of building characteristics on maintenance management costs in Kakamega Municipality; to establish the effect of tenant factors on maintenance management costs in Kakamega Municipality; to establish the overall effect of maintenance factors on maintenance management costs in Kakamega Municipality and to establish the effect of political factors on maintenance management costs in Kakamega Municipality. The study adopted a descriptive survey design. The collected data was analyzed using descriptive statistics and presented in form of means, standard deviation, frequency tables.

2.4 Conceptual Framework

The conceptual framework illustrates the dependent and independent variables. The dependent variable in this study is performance of public water companies in Kenya. The independent variables include segregation of duties, cash reconciliations, inventory audits and budget variance analysis.

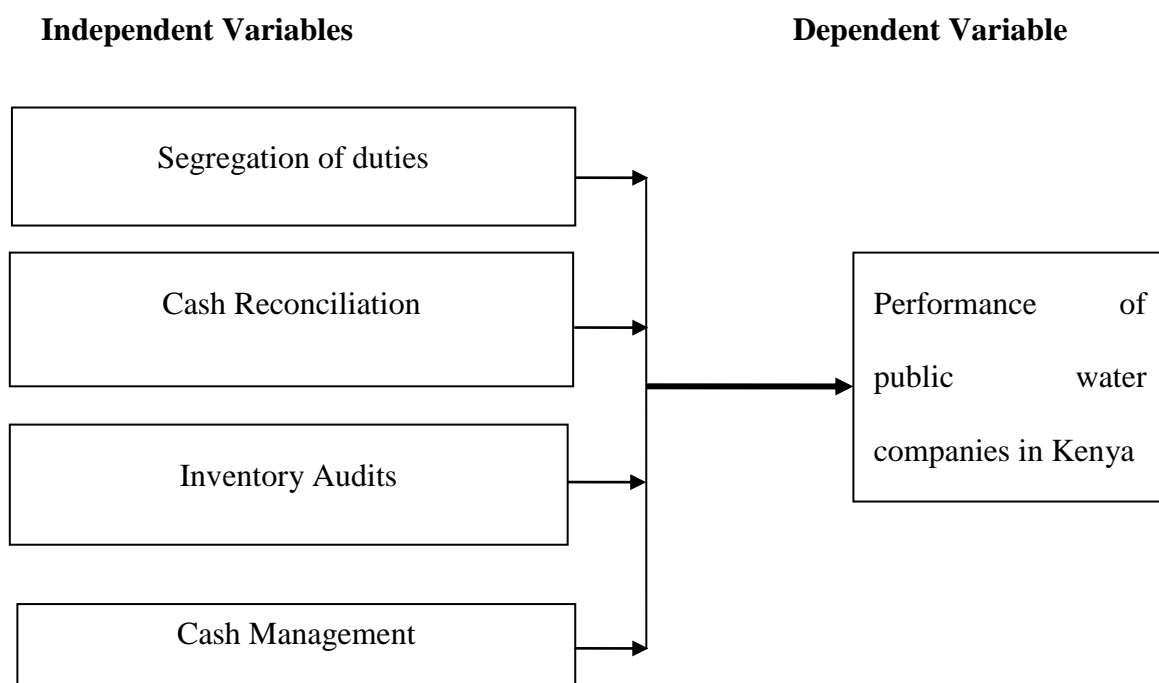


Figure 2.1: Conceptual Framework

2.5 Operational Definition of the Variables

Table 2.1 Operational Definition of the Variables

Variable	Indicators	Type of Analysis	Questionnaire Item
Segregation of Duties	<ul style="list-style-type: none">• Personnel policies• Number of people in a task	Descriptive Inferential	Section B: 1-5
Cash Reconciliation	<ul style="list-style-type: none">• Petty cash records• Surprise cash checks	Descriptive Inferential	Section C: 1-5
Inventory Audit	<ul style="list-style-type: none">• Inventory records maintenance	Descriptive Inferential	Section D: 1-5
Cash Management	<ul style="list-style-type: none">• Stock Management• Supply chain management	Descriptive Inferential	Section E: 1-5

2.6 Research Gap

Abdi (2015) investigated the impact of internal control system on financial performance in Mogadishu private banks. There exists a contextual gap as the study focused on private banks and not water service providers. A geographical gap also exists as the study was not carried out in Kenya. Mwakimasinde, Odhiambo and Byaruhanga (2014) investigated the effect of internal control systems on the financial performance of sugarcane out grower companies in Kenya. There exists a contextual gap as the study focused on sugarcane out grower companies and not water service providers.

Njanike, Mutengezanwa and Gombarume (2011) assessed factors that influence the internal controls in ensuring good corporate governance in financial institutions in developing

economies with special reference to Zimbabwe. The study failed to incorporate the aspects of audit function discussed in the current study. A geographical gap exists as the study was carried out in Zimbabwe and not in Kenya. Hamza, Mutala and Antwi (2015) assessed cash management practices and its effect on the financial performance of SMEs in the Northern Region of Ghana. The study failed to incorporate segregation of duties, cash reconciliations and budget variance analysis which are discussed in the current study. The study focused on SMEs and not water service providers thus presenting a contextual gap. Wanjala (2015) assessed the effect of cash management practices on Matatu Sacco growth in Kimilili Sub- County. The study failed to incorporate segregation of duties, cash reconciliations and budget variance analysis which are discussed in the current study. The study focused on Matatu Sacco growth and not water service providers thus presenting a contextual gap.

2.7 Chapter Summary

The chapter outlines theories that are relevant to the study and also discusses other studies by other researchers before addressing the research question. The chapter then gives the conceptual framework and finalizes with the chapter summary. The next chapter outlays the research methodology to be adopted for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the approaches and techniques the researchers will use when collecting data, analyzing the data and presenting the findings. These include the research design, target population, data collection methods and data analysis techniques.

3.2 Research Design

The study will use a descriptive survey study research design which is aimed at examining the effect of internal controls on financial performance of small and medium sized public water companies in Kenya. A descriptive survey is usually concerned with describing a population with respect to important variables with the major emphasis being establishing the relationship between the variables. The advantage of this type of research design is that it is easy to understand as recommended by (Kothari, 2005). This design attempts to collect data from members of the population and describes existing phenomenon with reference to audit function.

3.3 Population

A population has been defined as the total collection of elements about which inferences are made and refers to all possible cases which are of interest for a study (Sekaran, 2008). Other scholars like Smith (2011) view population as the large collection of all subjects from where a sample is drawn. The population of the study will be 65 chief internal auditors in Urban WSPs in Kenya as at December 2014 according to WASREB report attached in Appendix III. The WSPs

are clustered into large, medium and small as represented below. The population was justified on the basis that the secondary data on financial performance would be on a company to company basis.

Table 3.1: Study Population

Urban WSPs	No of WSP
Large	5
Medium	35
Small	25
Total	65

3.4 Sample Size and Sampling Technique

The study will conduct purposive sampling of the 60 chief internal auditors in Urban WSPs in Kenya. Mugenda and Mugenda (2003), define purposive sampling as a method that allows the researcher to use cases that have the required information depending on the objectives of the researcher. According to Kothari (2004), purposive sampling is also known as deliberate sampling which involves the deliberate selection of particular units of the sample size. Purposive sampling therefore saves on time and resources that the researcher would have used to collect the information. The researcher made sure that the respondents that she picked had the relevant information of the research that was carried out. The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which enables the researcher to answer the research questions. In this case, the researcher was only interested in the small and medium sized public water companies.

Table 3.2: Sample Size

Urban WSPs	No of WSP	Sample	Percent
Large	5	0	0
Medium	35	35	100
Small	25	25	100
Total	65	60	92.3

3.5 Data Collection Instruments

The study will use primary which will be obtained by use of a questionnaire. Structured questionnaires will be used to gather data. The choice of this data collection technique is due to ease in administration, analysis and cost-effectiveness in terms of time and money. Thorndike (1977) and Kothari (2004) define a questionnaire as a manuscript that constitutes of a number of questions printed or typed in a explicit order on a form or set of forms. The questionnaire will comprise of open ended and close ended questions. The use of structured questionnaire guarantees reliability of questions and answers from the respondents. Anonymity makes respondents prefer a questionnaire. Obtaining data from participants with different methods and experience will help prevent information bias and thus increasing credibility regarding the information collection. For purposes of this study, open ended and close-ended questionnaires using 4 point Likert scale with open spaces for comments on issues not captured in the questionnaire will be used through distribution on a drop and pick method. Secondary data on the performance of water service providers which will be measured using ROA for the last 5 years will be collected using a secondary data collection template.

3.6 Data Collection Procedures

The questionnaires will be issued to the respondents through informal self-introduction and through email. The questionnaires will be sent to the respondents under a questionnaire forwarding letter. Follow ups will be made and the fully completed questionnaires will be picked from the respondents later by use of a research assistant or through email.

3.7 Pilot Testing

According to Cooper and Schindler (2008) a pre-test is a small scale kind of research projects that collects data from respondents similar to those that will be used in the future survey. The aim of a pre-test was to act as a guide to examine specific aspects of research to see if the selected procedures will work as intended. A pre-test was meant to test for clarity and understanding of questions to test if the questions would yield as expected. According to Mugenda and Mugenda (2003) a pre-test should range from 1-10%.

A pilot study will be undertaken on 5% of the sample population. The questionnaire will be subjected to overall reliability analysis of internal consistency. This will be measured using Cronbach alpha as a coefficient of internal consistency. Internal consistency measures the correlations between different items on the same test (or the same subscale on a larger test) and whether several items that propose to measure the same general construct produce similar scores. Castillio (2009) provide the following rules of thumb: >0.9 – Excellent, >0.8 – Good, >0.7 – Acceptable, >0.6 – Questionable, >0.5 – Poor and <0.5 – Unacceptable. The acceptable value of 0.7 will be used as a cut-off of reliability for this study.

In addition, this study will use both construct validity and content validity. For construct validity, the questionnaire will be divided into several sections to ensure that each section assesses information for a specific objective, and also ensure that the same closely ties to the conceptual framework for this study. To ensure content validity, the questionnaire will be subjected to thorough examination by two randomly selected top managers. They will be asked to evaluate the statements in the questionnaire for relevance and whether they were meaningful, clear and non-offensive. On the basis of the evaluation, the instrument will be adjusted appropriately before subjecting it to the final data collection exercise. Their review comments will be used to ensure that content validity is enhanced.

3.8 Data Processing and Analysis

Burns and grove (2003) define data analysis as a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher. According to Hyndman (2008), data processing involves translating the answers on a questionnaire into a form that can be manipulated to produce statistics. This involves coding, editing, data entry, and monitoring the whole data processing procedure. After quantitative data is obtained through questionnaires, it will be prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed into statistical package for social sciences (SPSS) computer software for analysis. The statistics generated will include descriptive and inferential statistics. Microsoft excel will be used to complement SPSS especially in production of charts and tables.

The particular descriptive statistics will include frequencies and percentages while the particular inferential statistics will include correlation analysis and regression. Correlation analysis will

establish the association between the variables while a multiple linear regression model will be used to test the significance of the influence of the independent variables on the dependent variable. The choice and justification of using multiple linear regression model is that it is useful in testing the causal/effect relationship between organization capabilities and water service delivery. The equation below shows the multiple linear regression model of the independent variables against the dependent variable.

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

Where:

Y = Performance of Public Water companies in Kenya

β_1, β_2 and β_3, β_4 , = Beta coefficients

β_0 = Constant Term

X_1 = Segregation of Duties

X_2 = Cash reconciliations

X_3 = Inventory Audits

X_4 = Cost Management

ϵ = Error term

In order to test for causal relationship between the dependent and independent variables, R^2 statistic, F statistic, regression/beta coefficients will be evaluated for significance using p

values. The critical p value will be set at 0.05. The results will be presented in form of tables and pie chart.

3.9 Ethical Considerations

Ethics is a code of conduct which the researcher is supposed to obey when conducting the study (Mugenda & Mugenda, 2003). Ethical considerations relate to the moral standards that the researcher should consider in all research methods in all stages of the research design (Polit and Beck, 2003). Due care will be given to strict adherence of research procedures particularly those involving human subjects. Since the study will involve human participants, care will be taken to ensure that they are not affected negatively in any way and the research will not be undertaken for personal gain (Mugenda & Mugenda, 2003). In addition, a research permit will be sought before the research study begins. Therefore approval will be sought from KCA University and National Council of Science, Technology and Innovation before undertaking the actual research.

The other ethical issues that will be observed throughout the research process include: confidentiality and anonymity, voluntary participation and fairness on the respondents. This means that if any respondent who feels uncomfortable to continue on the research will be allowed to step down. The researcher will also ensure that the data collected will be treated with utmost confidentiality and will be used for purposes of the research only.

REFERENCES

- Abbott, A., Powell, W. W., & DiMaggio, P. (1992). An old institutionalist reads the new institutionalism.
- Abdi, A. D. (2015). *The Impact of Internal Control System on Financial Performance In Mogadishu Private Banks (Case Study Some Selected Private Banks In Mogadishu)*. Master's Thesis. Horseed International University
- Abioro, M. (2013). The impact of cash management on the performance of manufacturing companies in Nigeria. *Uncertain Supply Chain Management*, 1(3), 177-192.
- ACCA (2009/2010). *Advanced Audit and Assurance*; Kaplan Publishing
- Adams, M. B. (1994). Agency Theory and Internal Audit. *Managerial Auditing Journal*, 3(6), 8-12
- Amaka, C. P. (2012). *The Impact of Internal Control System on the Financial Management Of An Organization (A Case Study Of The Nigeria Bottling Company Plc, Enugu)*. Master's Thesis. Faculty of Management and Social Sciences Caritas University.
- Avika, M. & Hari, L. G. (2014). Cash Management Challenges of Small Businesses in a Developing Community. *Mediterranean Journal of Social Sciences*, 5(27), 11-21.
- Burns, N., & Grove, K. (2003). *Understanding Nursing Research*. (3rd ed.). Philadelphia: W.B./Saunders Company.
- Cagniard, B., Beeler, J. A., Britt, J. P., McGehee, D. S., Marinelli, M., & Zhuang, X. (2006). Dopamine scales performance in the absence of new learning. *Neuron*, 51(5), 541-547.
- Cooper, P. R. & Schindler, P.S. (2008). *Business Research Methods*. (10th ed.). Wiley, New York
- Daft, R. L. (2012). *Organization Theory and Design*. Natorp Boulevard: Erin Joyner.
- Davidson, R., Goodwin-Stewart, J. & Kent, P. (2015). Internal Governance Structures and Earnings Management. *Accounting and Finance*, 45(2), 241-267.

- Davoren, J. (2014). *Houston Chronicle*. Retrieved from Contingency Theory Auditing: <http://smallbusiness.chron.com>
- Duru, A. N., Okpe, I. & Udeji, A. O. (2014). Inventory Positioning and Firm Performance in
- Eighme, J. & Cashell, J. (2012). Internal auditors' roles in overcoming the financial reporting crisis. *International Auditing*, 17 (5), 3-10.
- Ejoh, N. O. & Ejom, P. E. (2014). The Effect of Internal Audit Function On The Financial Performance Of Tertiary Institutions In Nigeria. *International Journal of Economics, Commerce and Management*, 2(10), 1-14.
- Engineering Companies. Evidence from Nigeria. *World Engineering & Applied Sciences Journal*, 5 (3), 85-91.
- GICHUKI, C. W. (2014). Effect of cost management strategies on the financial performance of manufacturing companies listed on the Nairobi securities exchange.
- Gordon, L., & Miller, D. (1976). A contingency framework for the design of accounting information systems. *Accounting Organization & Society*, 1(1), 59–69
- 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.
- Jensen, M. C. & Meckling, W. H., (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, Vol. 3*
- Ljubisavljević, S. & Jovanovi, D. (2011). Empirical research on the internal audit position of companies in Serbia. *Economic Annals*, LVI(191), 123-141.
- MAGARA, C. N. (2013). *Effect of internal controls on financial performance of deposit taking savings and credit cooperative societies in Kenya* (Doctoral dissertation, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI).
- Matata, L. M. (2015). *The effect of internal controls on the performance of water companies in Kenya* (Doctoral dissertation, University of Nairobi).

- Mbuti, E. M. (2014). *Effect Of Internal Audit Reporting Quality On Financial Performance Of Savings And Credit Cooperative Societies. A Case Study In Murang'a County In Kenya*. Master's Thesis. KCA University.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 340-363.
- Mihret, D. G., James, K. & Joseph, M. M. (2010). Antecedents and organizational performance implications of internal audit effectiveness: some propositions and research agenda. *Pacific Accounting Review*, 22(3), 224 –252.
- Mugenda ,O. M &Mugenda, A.G. (2003). *Research Methodology*.Quantitative and Qualitative Approach. Nairobi. Acts Press.
- Mukopi, C. M. & Iravo, A. M. (2015). An Analysis of the Effects of Inventory Management on the Performance of the Procurement Function of Sugar Manufacturing Companies in the Western Kenya Sugar Belt. *International Journal of Scientific and Research Publications*, 5(5), 1-13.
- Mwakimasinde, M. O., Odhiambo, A. & Byaruhanga, J. (2014). Effects of Internal Control Systems on Financial Performance of Sugarcane outgrowercompanies In Kenya. *Journal of Business and Management*, 16(12), 62-73.
- Nyayiemu, S. K. (2013). Factors affecting housing maintenance management cost in Kakamega municipality, Kenya (Doctoral dissertation, University of Nairobi).
- Olumbe, C. O. (2012). *The relationship between internal controls and corporate Governance in commercial banks in Kenya* (Doctoral dissertation).
- Oluwagbemiga, O. E., Olugbenga, O. M., & Zaccheaus, S. A. (2014). Cost Management Practices and Firm's Performance of Manufacturing Organizations. *International Journal of Economics and Finance*, 6(6), 234.
- Ondieki, N. M. (2012). *Effect of Internal Audit on Financial Performance of Commercial Banks In Kenya*. Master's Thesis, University of Nairobi.

- Polit, D. F. & Beck, C.T. (2003). *In Nursing Research: Principles and Methods*. (7th Edition) (413-444). Philadelphia: Lippincott Williams & Wilkins.
- Ray W.O & Kurt P. (2011). *Principles of Auditing and Other Assurance Services*. Irwin/McGraw-Hill. New York.
- Wambua, B. J., Okibo, W. B., Nyang'au, A. & Ondieki, S. M. (2015). Effects of Inventory Warehousing Systems on the Financial Performance of Seventh Day Adventist Institutions: A Case of Adventist Book Centers (ABC), Kenya. *International Journal of Business and Management*, 10(4), 259 -264.
- Waterhouse, J., & Tiessen, P. (1978). A contingency framework for management accounting system. *Accounting Organization & Society*, 3(1), 65–76.
- Watson, D. (1975). Contingency formulation structure: Implications for managerial accounting. In Leslie Livingston (Ed.). *Managerial accounting the behavioral foundation*, 4(9), 110-121.

APPENDICES

Appendix I: Letter of Introduction

Dear (Respondent)

RE: VOLUNTARY PARTICIPATION IN DATA COLLECTION

I am a master's student at KCA University undertaking a research project on, **“the effect of internal controls on financial performance of public water companies in Kenya”** You have been selected for this study to fill the questionnaire. Kindly respond to the questions in the attached questionnaire. The information provided will exclusively and solely be used for academic purposes and will be treated with the confidence it deserves. Upon request, you will be furnished with a copy of the final report.

Your cooperation will be highly appreciated.

Yours Faithfully,

Dickson Njiru

Appendix II: Questionnaire

Kindly answer the following questions as honestly and accurately as possible. The information given will be treated with a lot of confidentiality. Please do not write your name anywhere on this questionnaire. You are encouraged to give your honest opinion.

SECTION A: PERSONAL INFORMATION

1. What is your age in completed years?

a) 18 to 30 years

b) 31 to 40 years

c) 41-50 years

d) Over 50 years

2. What is your Gender?

a) Male

b) Female

3. What is your highest academic qualification?

a) Certificate

b) Diploma

c) Bachelor's Degree

d) Masters Degree

e) PhD

6. How many years have you worked in your current position?

a) Less than 2 Years

b) 3-5 Years

c) Over 5 Years

7. Department:

Section B: Segregation of Duties

Strongly Disagree=1, Disagree=2, Agree = 3, Strongly Agree = 4

Statement	Strongly disagree	Disagree	Agree	Strongly agree
	1	2	3	4
The organization has an organizational chart that clearly defines lines of authority and responsibility				
Personnel policies are maintained and distributed to all personnel				
The reporting system on organizational structures spells out all the responsibilities of each section				
It is impossible for one staff to have access to all valuable information without the consent of senior staff				
All employees understand the concept and importance of internal controls including the division of responsibility				

Section C: Cash Reconciliations

Statement	Strongly disagree	Disagree	Agree	Strongly agree
	1	2	3	4
The petty cash records are regularly reconciled				
There is evidence of management review of cash reconciliations				
There is a policy to request for compensation for cash shortages from the cash officers				
Reconciled amounts are investigated and their sources determined				
Surprise cash checks are usually conducted				

Section D: Inventory Audits

Statement	Strongly disagree	Disagree	Agree	Strongly agree
	1	2	3	4
Receiving documents are matched to purchase orders and invoices				
All materials received are counted and inspected prior to entry on storeroom/inventory records				
Back-ordered items are properly followed up on to ensure timely receipt of items ordered				
Withdrawals from stock are made only upon receipt of approved documentation				
Inventory records are maintained based on periodic physical counts or a perpetual system				

Section E: Cost Management

Statement	Strongly disagree	Disagree	Agree	Strongly agree
	1	2	3	4
Controls are in place to exclude incurring expenditure in excess allocated funds				
Departments have budget reviews where actual expenditure is compared with budgeted expenditure and explanations for the variances given				
Management has assigned responsibilities for the timely review of audit reports and resolution of any non-compliance items noted in those audit reports				
There are independent process checks and evaluations of controls activities on ongoing basis				

Appendix III: List of Water Service Providers

1. Nairobi City Water and Sewerage Co.
2. Mombasa City Water and Sewerage Co.
3. Eldoret Water and Sewerage Co.
4. Nakuru Water and Sewerage Co.
5. Thika Water and Sewerage Co.
6. Nakuru Rural Water and Sanitation Co.
7. Nzoia Water and Sanitation Co.
8. Western Water and Sanitation Co.
9. Nyeri Water and Sewerage Co.
10. Kirinyaga Water and Sanitation Co.
11. Mathira Water and Sanitation Co.
12. Kisumu Water and Sewerage Co.
13. Kilifi Water and Sanitation Co.
14. Embu Water and Sanitation Co.
15. Kericho Water and Sanitation Co.
16. Bomet Water and Sanitation Co.

17. Gusii Water and Sanitation Co.
18. Nanyuki Water and Sanitation Co.
19. Malindi Water and Sewerage Co.
20. Kwale Water and Sanitation Co.
21. Nyahururu Water and Sanitation Co.
22. Garissa Water and Sewerage Co.
23. SIBO Water & Sanitation Co.
24. Murang'a Water and Sanitation Co.
25. Tavevo Water and Sanitation Co.
26. Meru Water and Sewerage .
27. Ololaiser Water and Sanitation Co.
28. Machakos Water and Sewerage Co.
29. Kikuyu Water Co.
30. Isiolo Water and Sewerage Co.
31. Ruiru-Juja Water and Sanitation Co.
32. Mavoko Water and Sewerage Co.
33. Limuru Water and Sanitation Co.

34. Kitui Water and Sanitation Co.
35. Amatsi Water and Sanitation Co.
36. Kiambu Water and Sewerage Co.
37. Mikutra Water Co
38. Eldama Ravine Water and Sanitation Co.
39. Lodwar Water and Sanitation Co.
40. Lamu Water and Sanitation Co.
41. Karuri Water and Sanitation Co.
42. Nol Turesh Water and Sanitation Co.
43. Naivasha Water Sewerage and Sanitation Co.
44. Olkejuado Water and Sewerage Co.
45. Mandera Water and Sanitation Co.
46. Kiambere Mwingi Water and Sanitation Co.
47. Kapenguria Water and Sanitation Co
48. Kibwezi Water and Sanitation Co.
49. Nyanas Water and Sanitation Co.
50. Loitoktok Water and Sanitation Co.

51. Narok Water and Sanitation Co.
52. Yatta Water and Sanitation Co.
53. Makindu Water and Sanitation Co.
54. Olkalou Water and Sanitation Co.
55. Iten Tambach Water and Sanitation Co.
56. Maralal Water and Sanitation Co.
57. Kapsabet Nandi Water and Sanitation Co.
58. Runda Water Co.
59. Rumuruti Water and Sanitation Co.
60. Kiamumbi Water and Sanitation Co.
61. Moyale Water and Sanitation Co.
62. Wote Water and Sanitation Co.
63. Gulf Water and Sanitation Co.
64. Namanga Water and Sanitation Co.
65. Ngagaka water Co.