INTERNAL ACCOUNTING CONTROLS MECHANISMS ON PERFORMANCE OF KENYA REVENUE AUTHORITY, WESTERN KENYA

BY

JORAM SAMUEL TOROREI

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SCHOOL OF BUSINESS AND ECONOMICS

MASENO UNIVERSITY

ABSTRACT

Management accounting literature show preventive accounting controls, accounting error detection controls and corrective accounting controls as important aspect of enhancing performance among firms. Prior studies fail to link preventive accounting controls, accounting-error detection controls; and it is not apparent how corrective accounting controls relate with performance of revenue collection authorities. Further they employ exploratory research design and use small samples. The purpose of the study was therefore to assess internal accounting controls mechanisms on performance of KRA, Western Kenya. The specific objectives of the study were to; establish the associations between preventive accounting controls, accounting-error detection controls and performance and examine the influence of corrective accounting controls on performance of KRA. The study was guided by an adapted conceptual framework; the contingency theory of cost accounting and new institutional sociology linking internal accounting controls and performance was modified to suit the objectives of the study. A correlational research design was employed. The target population was all the 88 employees of KRA in Western Kenya and the sample was 80 employees though only 72 returned filled questionnaires. The study used both primary and secondary data. A semi-structured self-administered questionnaire to the employees of KRA was used to collect primary data. Secondary data was collected through document review. Validity of the instrument was done using 10 % (8) of total KRA employees while reliability of the instrument was checked using Cronbach's Alpha method and all the multi-scale items had alpha of more than 0.7 co-efficients. Data was analyzed using descriptive statistics and Pearson's correlation analysis. Data was presented using tables, graphs and charts. The study found that preventive accounting controls on performance was positive and significant ($r = 0.415$, $p<0.01$) implying that instituting preventive accounting controls leads to increase in performance; accounting error detection controls had a positive and significant correlation with performance ($r = 0.243$, $p<0.01$) meaning that putting in place accounting-error detection controls leads to increase in performance and corrective accounting controls had a positive and insignificant correlation with performance measured in terms of meeting revenue targets ($r = 0.149$, $p>0.05$) implying that putting in place accounting-error detection controls leads to an insignificant increase in performance. The study concludes that application of preventive accounting controls, use of accounting-error detection and lastly use of corrective accounting controls influences performance positively of KRA. The study recommends that; the management of KRA continue to intensify use of preventive accounting controls as this enhances performance of the authority; emphasize on accounting-error detection controls as these are found to improve performance and continue applying corrective accounting controls as these leads to high performance of the authority. The research findings are significant to KRA internal control policy makers in designing appropriate internal accounting controls that safeguards revenue.

CHAPTER ONE: INTRODUCTION

This chapter sets the background to the study, statement of the research problem, study objectives, research questions, scope, justification and the conceptual framework.

1.1 Background of the study

According to Stephen *et al.,* (2000), control is the process of monitoring activities to ensure they were being accomplished as planned and correcting any significant deviations. Certified Public Accounts Research (1990) defined internal control as "the plan of organizational and the coordinated methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency and encourage adherence to prescribed management policies." Donald *et al.,* (1994), view internal control as a structure that comprises three elements, which are: the control element which entails management philosophy, organizational structures, the functions of the board of directors, management control, and personnel management methods; the control procedures which consist of policies and procedures that the management has established to provide reasonable assurance that specific objectives will be achieved; and the accounting system which refer to the methods and records established to identify, assemble, classify, record and report an entity's transactions and maintain accountability for related assets and liabilities.

The primary objective of application controls is to ensure the accuracy and integrity of specific applications such as sales order processing or accounts payable. They include input, processing, and output controls within an application. Input controls relate to the data that is entered into the system; processing controls relate to transformation and output controls work to ensure that the processed data is distributed and utilized appropriately by authorized users for authorized purposes (Hall, 2002). General and application controls are interrelated and always taken together; they serve to ensure validity, accuracy, and completeness of financial information produced by the current internal information system of an entity. System controls need to be understood as they relate to management's assertions, and regardless of their strength, their operational effectiveness needs to be evaluated (COSO, 1999; COBIT, 2002).

Internal control mechanisms are broadly described as a set of techniques or procedures which an entity's management establishes and uses to safeguard its assets, provide reliable accounting information, encourage adherence to management policies and ensure operational efficiency (Whittington and Pany, 2004). Whittington and Pany (2004) identifies three main internal accounting control mechanisms namely preventive accounting controls, accounting error detection controls and corrective accounting controls.

Preventive accounting controls are the most effective types of internal controls because they are put in place before errors or irregularities occur and are designed to keep these flaws from happening (Chye et *al.,* 2010). Chye *et al.,* (2010) give examples of preventive controls as adequate separation of duties (not having the same person both authorize and process transactions), proper authorization of transactions (a supervisor authorizes a purchase by reviewing and approving the purchase request) and adequate documentation and control of assets (when purchases are made, there should be an approved purchase request and an invoice and receiving documents to show delivery of the items). According to Young and Cardoso (2009), effectiveness of preventive internal controls strengthens transparency in the management of public funds.

Empirical evidence (Keating *et al*., 2005, Rosalind and Downs, 2004, Doyle *et al*., 2005, LIU Xinmin, 2007 and Chelimo and Kariuki, 2013) show that preventive internal controls are important in enhancing firm's performance and competitive advantage. Keating *et al*., (2005) examined audit results for nonprofit organizations using univariate tests and found that smaller organizations and organizations classified as high risk disclosed more internal control problems. On the contrary, a comparative study by Rosalind and Downs (2004) on funding schools found that the local community awareness about funding system and value received by the schools in Brazil, Poland and England was very low.

Doyle *et al*., (2005) studied determinants of weaknesses in internal controls over financial reporting and the implications for earnings quality using descriptive research design and found that the company level of control problems, which cannot be audited as easily, are associated with lower earnings quality, which explore links between disclosure of material weakness and fraud, earnings management or restatements. However, only weaknesses of internal controls as opposed to preventive accounting controls were studied. The study fails to link preventive accounting controls to performance and the study used descriptive research design as opposed to correlational research design. On the other hand, LIU Xinmin (2007) studied the relationship between a firm's internal control mechanisms and the choice of innovation mode found that strategic control has a positive relationship with radical innovation, but a negative relationship with incremental innovation, while financial control has a negative relationship with radical innovation, but a positive relationship with incremental innovation.

Similarly, a study by Chelimo and Kariuki (2013) on evaluation of internal audit function in financial reporting of local authorities in Kenya found a significant effect of internal audit function in financial reporting in the Municipal Council of Eldoret.

Reviewed literatures show that preventive internal controls are important in enhancing firms performance and competitive advantage. Prior researches use convenient sampling methods and exploratory or case study research designs and descriptive statistics; study firms in the private, local authorities and education sectors. They employ primary data based on cross-sectional study units, but fail to link preventive accounting controls to performance of Kenya Revenue Authority western Kenya.

Accounting-error detection controls are designed to note errors and irregularities after they occur. These controls include: exception reports (computer reports of occurrences outside the norm), reconciliations (bank reconciliations and general ledger reconciliations) and periodic audits (both independent external audits and internal audits which help to uncover errors, irregularities and noncompliance with laws and regulations Millichamp, 2008). On the other hand, Chye *et al.,* (2010) agree that accounting-error detection controls are meant to search for and identify errors on a timely basis after they have occurred. They can also be used to measure the effectiveness of preventive controls. In some cases, it may not be possible to have a preventative control and so detective controls are the most effective way to manage certain types of risks (Chye *et al.*, 2010). Errors can occur at any stage in accounting such as transaction occurrence, documentation, record, summarizing process, and financial statement production. Error can be of any of a multitude of kinds-mathematical or clerical or in the omission or errors in the interpretation of, facts (Millichamp, 2008).

Empirical evidence (Ogembo, 2005, , Doyle *et al.*, 2005, LIU Xinmin, 2007 Keating *et al.*, 2005, Rosalind and Downs, 2004 and Kibua *et al.,* (2008) show that accounting error detection controls are important in enhancing firm's performance and competitive advantage.
Using exploratory research design, Ogembo (2005) studied training needs of heads of departments of secondary schools for effective curriculum implementation in Kenya and found that it is at the secondary school level that huge amounts of money are subjected to little accounting procedures and there are no proper structures for making schools accountable.

Doyle *et al.*, (2005) studied determinants of weaknesses in internal controls over financial reporting and the implications for earnings quality using descriptive research design and found that the company level of control problems, which cannot be audited as easily, are associated with lower earnings quality, which explore links between disclosure of material weakness and fraud, earnings management or restatements.

Similarly, a study by LIU Xinmin (2007) on the relationship between a firm's internal control mechanisms and the choice of innovation mode found that strategic control has a positive relationship with radical innovation.

A comparative study by Rosalind and Downs (2004) on funding schools, decentralization and corruption found that the local community awareness about funding system and value received by the schools in Brazil, Poland and England was very low. In addition, very few parents participated in school administration.

Keating *et al.*, (2005) studied audit results for nonprofit organizations using univariate tests and found that smaller organizations and organizations classified as high risk disclosed more internal control problems. Similarly, a study by Kibua *et al* (2008) on making public secondary education in Kenya affordable found that irrational high cost of secondary education is partly due to poor governance of these schools.

Reviewed literatures show that accounting-error detection controls are important in enhancing firm's performance and competitive advantage. Prior researches use convenient sampling methods and exploratory or descriptive research designs and descriptive statistics; study firms in the private, local authorities and education sectors. They employ primary data based on cross-sectional study units, but fail to study revenue authorities using correlational research design. Therefore, no researches relating accounting error-detection controls to performance of Kenya Revenue Authority in Western Kenya.

Corrective controls are designed to correct errors or risks and prevent the recurrence of further errors. They begin when undesirable outcomes are detected and keep the 'spotlight' on the problem until management can solve the problem or correct the defect (Kaplan, 2008). Thuy (2007) also suggest that corrective controls occasioned to prevent errors and irregularities from reoccurring once they are discovered. Examples of these types of controls are policies and procedures for reporting errors and irregularities so they can be corrected, training employees on new policies and procedures developed as part of the corrective actions, positive discipline to prevent employees from making future errors and continuous improvement processes to adopt the latest operational techniques (Thuy, 2007).

According to Sarbanes-Oxley Act (SOX, 2002), corrective actions are comprised of policies, procedures, and systems relating to the reliability of financial reporting. They include redesigned authorizations and approvals, verifications, reconciliations, reviews of performance, security of assets, segregation of duties, and controls over information systems. Corrective actions are a necessary complement to internal control activities in order to achieve the organizations objectives hence realizing value for money (Laura, 2002).

Empirical evidence (Chelimo and Kariuki, 2013, Hooks *et al.*, 1994, Kibua *et al.,* 2008, Keating *et al.*, 2005, LIU Xinmin, 2007 and Kiboiy, 2008) shows that corrective accounting controls are critical in enhancing financial reporting and performance. A study by Chelimo and Kariuki (2013) on evaluation of internal audit function in financial reporting of local authorities in Kenya found a significant effect of internal audit function in financial reporting in the municipal council of Eldoret.

Similarly, a study by Hooks *et al,*. (1994) on enhancing communication to assist in fraud prevention and detective auditing and found that flatter organizational structures and technological innovations had resulted in fewer middle managers, the traditional 'gatekeepers' of control, who were previously responsible for the assembly and distribution of information; checking and authorizing transactions and supervision of employees.A study by Kibua *et al.,* (2008) on making public secondary education in Kenya affordable found that irrational high cost of secondary education is partly due to poor governance of these schools.

Another study by Keating *et al.*, (2005) used univariate tests to examine audit results for nonprofit organizations and found that smaller organizations and organizations classified as high risk disclosed more internal control problems.

LIU Xinmin (2007) studied the relationship between a firm's internal control mechanisms and the choice of innovation mode found that strategic control has a positive relationship with radical innovation, but a negative relationship with incremental innovation, while financial control has a negative relationship with radical innovation, but a positive relationship with incremental innovation.

Another study by Kiboiy (2008) on effectiveness of financial management found out that many schools in Nandi district had untrained bursars and accounts clerks.

Empirical literature shows that corrective accounting controls are critical in enhancing financial reporting. Prior researches use exploratory and descriptive research designs and study firms in the private and school, but fail to study revenue authorities using correlational research design.

Therefore, no researches relating corrective accounting controls to performance of Kenya Revenue Authority in Western Kenya.

In Kenya, tax revenues make up to 80% of the government's budgetary resources with a negligible proportion coming from grants and loans owing to the stringent conditionalities adopted as part of Structural Adjustment programmes (SAPs) imposed on the Kenyan government in the 1990s by International monetary Fund (IMF) and the World Bank (Muriithi and Moyi, 2006). The Kenya Revenue Authority (KRA) is the tax collection agency of the Government of Kenya. It was formed on July 1, 1995 to enhance tax collection on behalf of the Government of Kenya. It brought together Customs and excise and Income Tax departments of the Ministry of Finance and Road Transport departments under the Ministry of Transport. It collects a number of taxes and duties, including Pay as you earn, value added tax, income tax and customs, traffic fees among others. Since KRA's inception, revenue collection has increased dramatically, enabling the government to provide much needed services to its citizenry like free primary education and health Services to all.

Over 95% of annual national budget funding comes from local taxes collected by the KRA. Concerns have also emerged about efficiency of collecting taxes and duties such as pay as you earn, value added tax, income tax and customs, traffic fees among others owing to stringent conditionalities adopted as part of Structural Adjustment programmes (SAPs) imposed on the Kenyan government in the 1990s by International monetary Fund (IMF) and the World Bank (Muriithi and Moyi, 2006).

1.2 Statement of the problem

Management accounting literature show preventive accounting controls, accounting error detection controls and corrective accounting controls as important aspect of enhancing performance among firms, the effect of preventive accounting controls on performance of Kenya Revenue Authority is not apparent. Prior studies fail to link accounting error detection to performance of revenue authorities and it is not apparent how corrective accounting controls relate with performance of revenue collection authorities. Moreover, most reviewed studies do not focus on revenue agencies in the public sector. They employ exploratory research design and use small samples. Therefore the purpose of the study was to asses internal accounting controls mechanisms on performance of KRA, Western Kenya.

1.3 Objectives of the Study

The general objective was to assess internal accounting controls mechanisms on performance of Kenya Revenue Authority, Western Kenya.

Specifically, the study sought to:

i) Establish the association between preventive accounting controls and performance of Kenya Revenue Authority, Western Kenya.

ii) Establish the association between accounting-error detection controls and performance of Kenya Revenue Authority, Western Kenya.

iii) Analyze the relationship between corrective accounting controls and performance of Kenya Revenue Authority, Western Kenya.

1.4 Research Questions

This study tests the following research questions:

i) To what extent does adoption of Preventive accounting controls affect performance of Kenya Revenue Authority, Western Kenya?

ii) What controls are put in place to detect accounting errors in Kenya Revenue Authority, Western Kenya?

iii) What is the effect of corrective accounting controls on performance of Kenya Revenue Authority, Western Kenya?

1.5 Scope of study

The scope of the study is examined in terms of subject, area and time scopes. In terms of the subject scope, this study is limited to the broad business field of management accounting and its subfields of cost accounting, auditing and investigations. Area or geographical scope is the second aspect of scope in this study. The study was carried out in Western Kenya. Western Kenya constitutes Kisumu, Kakamega, Busia, Isibenia and Malaba and it occupies a central location within the Great Lakes region of Africa. This study focuses on Kenya Revenue Authority. The study specifically focused on the influence of internal accounting control mechanisms and performance. The specific internal control mechanisms under study included preventive, detective, and corrective measures as adopted by the authority. Kenya Revenue Authority was studied since over 95% of annual national budget funding comes from local taxes collected by the KRA.

1.6 Significance of the study

The findings from this study would be of significance to a number of partners in the public finance sector. First, the study would help the public finance policymakers, especially those at regional offices, to realize the need to have and implement effective controls in executing revenue collection strategies. Second, the study would generate knowledge to link controls and performance of revenue collection authorities which would guide policy makers in the planning for the limited public resources. Finally, the study would be helpful to all academicians in finance and accounting, management, legal and other fields in the furtherance of their studies in form of future research and in the operations at their work places.

1.7 Conceptual Framework

This study was based on the theoretical perspective presented by Burns & Stalker (1961) on contingency theory of cost accounting who discussed why internal accounting controls practices may be unlike when comparing one organization to the other. Contingency theory looks at certain influential factors that will assist management to decide on an appropriate internal accounting control mechanisms.

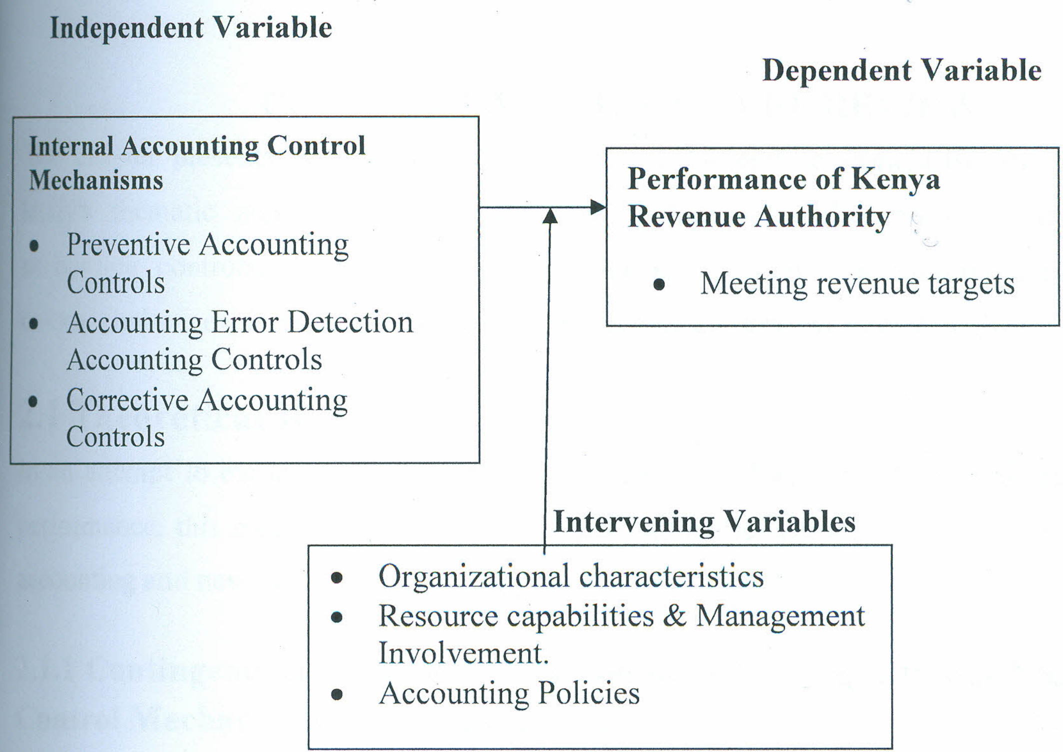

Fig. 1.1: Relationship between Internal accounting control mechanisms and performance of Kenya Revenue Authority.

Source: Adapted and modified from Burns & Stalker (1961).

Figure 1.1 shows the effect of internal accounting control mechanisms and performance relationship. In the framework, the independent variable is the internal accounting control mechanisms with three constructs namely preventive, accounting error detection and corrective accounting controls. The dependent variable is the performance which is measured in terms of meeting revenue targets. In addition, there exist two intervening variables which include: organizational characteristics, resource capabilities and management involvement and accounting policies.

CHAPTER TWO: LITERATURE REVIEW

The chapter presents both theoretical and empirical literature from different sources on the study's thematic areas. The areas reviewed include internal control systems, preventive accounting controls, detective accounting controls, corrective accounting controls, internal control challenges, internal controls and performance, and review of past studies.

2.1 Theoretical Review

In an attempt to explain the relationship between internal accounting control mechanisms and performance, this study focused on two competing theories namely: contingency theory of cost accounting and new institutional sociology.

2.1.1 Contingency Theory of Cost Accounting Linking Internal Accounting Control Mechanisms and Performance

Contingency theory of Woodward (1958) is been employed as the underpinning theory for the research due to the fact that, the theory is one of those theories that are recently been employed in the research area of cost accounting and auditing (Valanciene & Gimzauskiene, 2009; Abushaiba & Zainuddin, 2012). Even though, the use of theory may have different effect, and equally it effectiveness depend upon the field that is been proposed (Drazin & Van de Ven, 1985). Nevertheless, contingency theory enables a researcher to systematically introduce factors to explain or predict expected phenomena (Umanath, 2003). The theory enable hypothesize a conditional relationship between two or more independent variables with a dependent variable and subject it to an empirical validation (Drazin & Van de Ven, 1985). The theory also contributes in the identification of relationship that is complex among variables i.e. examining effect of one variable on another (Heo & Han, 2003). This is in line with Sekaran and Bougie (2009) which affirmed that moderating variables is the one which has strong contingent effect on the relationship between independent and dependent variables. Equally, the theory has been employed by previous researchers in explaining some of the research variables. Krishnamoorthy, (2008), even with regard to audit effectiveness the theory has equally employed by previous researchers (Sudsomboon & Ussahawanitchakit, 2009) as contingent variables can also differ (Wood, 2009).

Burns & Stalker (1961) discussed why internal accounting practices may be unalike when comparing one organization to the other. This can be related to organizations operating in different industries or sectors. Otley (1980) applied contingency theory to internal accounting practices and explained that there is no single general standard accounting practice that can be applied to all organizations. In essence, each organization will have its own internal accounting practices. The theory looks at certain influential factors that will assist management to decide on appropriate internal accounting mechanisms. These factors can either be technological changes and the infrastructure of an organization. For example, a manufacturing food company may want to change the technology used to a more modern hygienic and efficient way of handling, processing and packaging its food. It may then consider installing a computer based system that mass produces its products. However, the type of qualified personnel that is required to operate such highly complex equipment will influence the type of internal accounting practices selected and production costs.

Dugdale (1994) highlighted which internal accounting practices are widely used in manufacturing organizations. Those that were highly favored were budgeting for controlling costs and performance evaluation. His findings revealed that budgeting plays an important role in the managing and directing process of the organization. This tells managers what costs to expect over the next budgeted period and also gives an indication when the company might expect to go through a seasonal change and the impact it will have on the company's cash flows and revenues. Perhaps this is the main reason why this particular management accounting practice is highly rated over many other practices. Dugdale (1994) further went on to mention that budgeting enables organizations to effectively plan and develop strategies to achieve their goals. Luther & Longden (2001) also observed that the budgeting process is an integral part of managing and controlling costs in the manufacturing sector, for example, in the UK, South Africa and Australia.

2.1.2 New Institutional Sociology Linking Internal Accounting Control Mechanisms and Performance

The foundations of New Institutional Sociology (NIS) were laid by Meyer and Rowan's (1977) seminal paper, which came after a series of puzzling observations made in the 1970s by a group of researchers studying the educational sector in the USA. Specifically, they had identified inconsistencies and observed the loose coupling (March and Olsen, 1976; Weick, 1976) of formal structures/procedures and actual work practices, which existing organizational theory could not explain (Meyer and Scott, 1992).

The key contention of NIS is that some organizations exist in highly institutionalized environments. In this sense, "environment" is not merely conceptualized as a source of task constraints or a relational network (of customers, suppliers and other near constituencies) that poses demands for operational coordination and control on an organization. Rather, it includes the cultural rules and social norms that are reflected in specific formal structures and procedures of the organization. That is, institutionalized organizations tend to adopt structures and procedures that are valued in their social and cultural environment. They do this in order to achieve legitimacy and to secure the resources that are essential for their survival.

This search for legitimacy and resources explains why specific organizational forms and procedures are diffused across organizations operating in similar settings –, e.g. similar environments (Scott, 1992), societal sectors (Scott and Meyer, 1992), or organizational fields (DiMaggio and Powell, 1983). Developing this insight, DiMaggio and Powell (1983) suggested that this process of diffusion can create pressures that lead organizations to become isomorphic with other organizations in their institutional setting. Competitive isomorphism (Hannan and Freeman, 1977), such as market forces, is not dismissed, but the emphasis is placed instead on three types of institutional isomorphism – coercive, normative and mimetic isomorphism – that highlight the social and political dimensions of the environment in which organizations are located.

An important aspect that runs through Meyer and Rowan's (1977) paper is that the formal structures and procedures of institutionalized organizations may become decoupled from actual work practices. Formal structures and procedures are adopted in order to acquire legitimacy and guarantee the resources required for the survival of the organization, but they are detached from the everyday organizational practices so as not to disturb the normal processes of daily operations.

Some argue that organizations are strategic in their response to the institutional pressures imposed on them (Oliver, 1991). They may purposefully comply with regulations or adopt specific formal structures and procedures, but do so in a manipulative fashion, in order to gain legitimacy and thereby secure resources, grants, etc. on which they depend (Edelman, 1992). However, this idea of "window-dressing" and decoupling from actual operations has been critiqued in another stream of NIS theorizing (Zucker, 1977). Specifically, the observation that institutionalized structures are decoupled from actual practices conflicts with Berger and Luckman's (1966) definition of institution: a reciprocal typification of habitualized action by types of actors. As Meyer and Rowan draw on this principle early in their 1977 paper, Tolbert and Zucker (1996) claim there is: an inherent ambiguity in their underlying phenomenological argument, because the definition of "institutionalized" itself contradicts the claim that institutional structures are apt to be decoupled from behavior. To be institutional, structure must generate action. As Giddens (1979) argues, structure that is not translated into action is in some fundamental sense not social structure.

2.1.1The Concept of Internal Control Systems (ICS)

Internal control is a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the effectiveness and efficiency of operations, reliability of financial and management reporting, compliance with applicable laws and regulations and protect the organization's reputation (Kaplan, 2008). According to Cunningham (2004), ICSs begin as internal processes with the positive goal of helping a corporation meet its set objectives. Management primarily provides oversight activity; it sets the entity's objectives and has overall responsibility over the ICS. Internal controls are an integral part of any organization's financial and business policies and procedures (Cunningham, 2004). Internal financial controls consist of all the measures taken by the organization for the purpose of protecting its financial resources against waste, fraud and inefficiency; ensuring accuracy and reliability of accounting and operating data; ensuring compliance with the policies of the organization; evaluating the level of performance in all organizational units of the organization, (Kaplan, 2008).

ICSs are applicable to each organization in relation to key risks and are embedded within the operations and not treated as a separate exercise. ICSs should be able to respond to changing risks within and outside the company and they are a means to an end, not an end itself, (Cunningham, 2004). Cunningham (2004) further states that internal controls are effected by people not merely policy manuals and forms, but people functioning at every level of the institution. Internal control only provides reasonable assurance to an institution's leaders regarding achievement of operational, financial reporting and compliance objectives; promoting orderly, economical, efficient and effective operations; safeguarding resources against loss due to waste, abuse, mismanagement, errors and fraud (Kaplan, 2008). Internal controls lead to the promotion of adherence to laws, regulations, contracts and management directives and the development and maintenance of reliable financial and management data, and accurately present that data in timely reports, (Kaplan, 2008).

According to the Combined Code on Corporate Governance (CCCG) (2005); management should identify and manage all risks within the organization and should maintain a sound system of controls to safeguard stakeholders' interests and the assets. According to Treba (2003), a system of internal control is a tool for ensuring that an organization realizes its mission and objectives. He further notes that much as internal controls are often thought to be the domain of accountants and auditors; it is actually management that has primary responsibility for proper controls. A critical element of any comprehensive ICSs is regular monitoring of the effectiveness of internal controls to determine whether they are well designed and functioning properly (Treba, 2003).

2.1.2 The Concept of Preventive Accounting Controls

Preventive controls are the most effective types of internal controls because they are put in place before errors or irregularities occur and are designed to keep these flaws from happening (Chye et al., 2010). Chye et al. (2010) give examples of preventive controls as adequate separation of duties (not having the same person both authorize and process transactions), proper authorization of transactions (a supervisor authorizes a purchase by reviewing and approving the purchase request) and adequate documentation and control of assets (when purchases are made, there should be an approved purchase request and an invoice and receiving documents to show delivery of the items). According to Young and Cardoso (2009), effectiveness of preventive internal controls strengthens transparency in the management of public funds. Apart from transparency, as stated by Young and Cardoso (2009), effectiveness of preventive controls further strengthen accountability, investments in viable projects and helps to meet the wealth maximization objective. Internal audit screens the adequacy, completeness and functionality of the internal control system. Schaefer and Peluchette (2010) indicate that fraudulent financial statements are often avoided by an effective preventive internal control system.

Govender and Parumasur (2010) indicate that managers have to continuously develop new preventive competencies to manage challenges and for organizational survival. Botha and Camphor (2008) urge that development of managerial intelligence and competencies is essential for organizations to achieve their objectives.

Fard *et al.* (2010) urge that presently organizations purely understand the importance of employees' competency improvement since competent ones can apply their knowledge, skills, capabilities, abilities and personal characteristics and prevent an organizational loss. Zezlina (2008) indicates that in order to develop managerial competence, team work, efficient communication and training are important. Whitehead (2009) indicates that in order to develop managerial preventive control, an organization has to highly develop communication, interpersonal and analytical skills. Both Zezlina (2008) and Whitehead (2009) agree that efficient communication is very important while developing managerial controls. Bitencourt (2009) indicates that the training component contributes to the development of managerial preventive controls. Bitencourt (2009) also qualifies the training issue as indicated by Zezlina (2008) in the development of managerial competence. As well Epstein and Hundert (2008) also qualify the issue of interpersonal and analytical skills as indicated by Whitehead (2009).

Vraniali (2010) posits that in any public spending environment, preventive control system and proper accountability are significant factors. Tommasi (2007) emphasizes a credible and affordable budget as a super instrument of public financial management. Vraniali (2010) further urges that a Management Information System (MIS) is extremely important in the monitoring of public expenditure. Dayananda *et al.* (2009) further states that efficient financial management is reflected by the success in achieving the preventive objectives through the investment decision.

Globally, theoretical literature links internal accounting controls and firm performance positively (Zhang, 2007, Hoitash *et al.* 2009, Samson *et al.,* 2006). However, empirical studies on the relationship between internal accounting controls and performance have posted inconclusive results (Keating *et al.,* 2005, Robertson and Louwers, 2004, Rosalind and Downs, 2004, Campbell, 2000 and Liu Xinmin, 2007).They emphasize on the need to monitor internal controls systems arguing that monitoring helps to improve efficiency, earning quality and management (Robertson and Louwers, 2004 and Campbell, 2000). Keating et al., (2005) examined 133 audit results from 1997-1999 using time series data and found that smaller organizations and high-risk organizations disclosed more internal problems. Rosalind and Downs (2004) studied internal controls amongst schools and found that local communities were ignorant of funding systems and associated internal control mechanisms. However, evidence is lacking showing a clear link between the extent of adoption of preventive accounting controls and performance of Kenya Revenue Authority Western Kenya.

2.1.3 The Concept of Accounting-Error Detection Controls

Millichamp (2008) describes detective controls as designed to note errors and irregularities after they occur. In accounting, examples of these types of controls are exception reports (computer reports of occurrences outside the norm), reconciliations (bank reconciliations and general ledger reconciliations) and periodic audits (both independent external audits and internal audits which help to uncover errors, irregularities and noncompliance with laws and regulations). Chye et al. (2010) agree that detective controls are meant to search for and identify errors on a timely basis after they have occurred. They can also be used to measure the effectiveness of preventive controls. In some cases, it may not be possible to have a preventative control and so detective controls are the most effective way to manage certain types of risks (Chye *et al*., 2010).

Errors can occur at any stage in accounting such as transaction occurrence, documentation, record, summarizing process, and financial statement production. Error can be of any of a multitude of kinds-mathematical or clerical or in the omission or errors in the interpretation of, facts (Millichamp, 2008). Millichamp (2008) refers errors as 'unintentional mistakes' which if not contained may lead to funds loss. Errors can occur at any stage in business transaction processing and can take many forms, mathematical or clerical or in the application of accounting principles: there can be mistakes of commission (doing something wrongly), mistakes of omission (leaving something out) or errors in the interpretation of facts (Millichamp, 2008).

According to Domelevo (2006), today strong financial management in the public sector is not a luxury but a necessity. In an era of increased demand for accountability and transparency in government, the 'stakeholders' of the public sector are demanding more effective and efficient use of public resources. Citizen confidence in government and public institutions is sharply affected by the degree to which resources are perceived to be managed. This requires shaping government policy on fighting corruption and detection of leakages and waste of public resources. One avenue on which responsibility lies as an oversight organization in detecting corruption and promoting internal control in the public sector is the internal audit.

The directors are responsible for taking reasonable steps to detecting financial fraud and other malpractices. They are also responsible for preparing financial statements which give a true and fair view. However, the auditors must plan and perform their audit procedures and evaluate and report the results thereof, recognizing that fraud or error may materially affect the financial statements. A strong system of internal control will give the auditors some assurance that fraud and error are not occurring, unless management are colluding to overcome that system (ACCA, 2007). According to Robertson and Louwers (2004), management should asses the quality of the control performance on a timely basis to detect any anomaly. Monitoring includes regular management and supervisory activities and other actions personnel take in performing their duties. Errors, frauds and internal control deficiencies should be reported to help management and to the Audit committee of the board of directors.

Domelevo (2006) notes that today, strong financial management which entails accounting-error correction controls in the public sector is not a luxury but a necessity. In an era of increased demand for accountability and transparency in government, the 'stakeholders' of the public sector are demanding more effective and efficient use of public resources. Citizen confidence in government and public institutions is sharply affected by the degree to which resources are perceived to be managed. This requires shaping government policy on fighting corruption and detection of leakages and waste of public resources. One avenue on which responsibility lies as an oversight organization in detecting corruption and promoting internal control in the public sector is the internal audit (Domelevo, 2006). However, no known study that has linked accounting-error detection controls to performance of Kenya Revenue Authority.

Theoretical literature presented above describes detective controls as designed to note errors and irregularities after they occur for instance exception reports (computer reports of occurrences outside the norm), reconciliations (bank reconciliations and general ledger reconciliations) and periodic audits (both independent external audits and internal audits which help to uncover errors, irregularities and noncompliance with laws and regulations) (Millichamp, 2008 and Chye et al., 2010).

However, empirical studies on the detective internal accounting controls have found that detective controls are meant to search for and identify errors on a timely basis after they have occurred (Robertson and Louwers, 2004 ,Whitehead, 2009,Zezlina, 2008 and Tommasi, 2007).They emphasized on the need for management to assess quality of control performance and that errors, frauds and internal control deficiencies should be reported on regular basis (Robertson and Louwers, Whitehead, 2009 and Zezlina, 2008, Domelevo, 2006).They further note that errors can occur at any stage in accounting such as transaction occurrence, documentation, record, summarizing process, and financial statement production. Error can be of any of a multitude of kinds-mathematical or clerical or in the omission or errors in the interpretation of, facts (Millichamp, 2008). However, it was not apparent how detective accounting controls have affected the performance of Kenya Revenue Authority, Western Kenya.

2.1.4 The Concept of Corrective Accounting Controls

Corrective controls are designed to correct errors or risks and prevent the recurrence of further errors. They begin when undesirable outcomes are detected and keep the 'spotlight' on the problem until management can solve the problem or correct the defect (Kaplan, 2008). Thuy (2007) also suggest that corrective controls occasioned to prevent errors and irregularities from reoccurring once they are discovered. Examples of these types of controls are policies and procedures for reporting errors and irregularities so they can be corrected, training employees on new policies and procedures developed as part of the corrective actions, positive discipline to prevent employees from making future errors and continuous improvement processes to adopt the latest operational techniques (Thuy, 2007).

Once the accounting errors have been identified, specific corrective actions can be undertaken to reduce the propensity of the errors recurring (Kaplan, 2008). According to Sarbanes-Oxley Act (SOX, 2002), corrective actions are comprised of policies, procedures, and systems relating to the reliability of financial reporting. They include redesigned authorizations and approvals, verifications, reconciliations, reviews of performance, security of assets, segregation of duties, and controls over information systems. Corrective actions are a necessary complement to internal control activities in order to achieve the organizations objectives hence realizing value for money (Laura, 2002).

Management should focus corrective efforts on internal controls and the achievement of the organization's mission. For the efforts to be most effective, all employees need to understand the organization's mission, objectives, risk tolerance levels and their own responsibilities (DiNapoli, 2007). Ongoing corrective controls are built into the normal, recurring operating activities of an entity. They involve actions against irregular, unethical, uneconomical, inefficient and ineffective Internal Control Systems (DiNapoli, 2007). According to Kaplan (2008), failure to correct financial risk correctly could lead to financial collapse of an organization. He supplements that, internal audit function is often the key monitor of the ICS; they examine the controls and control system, identify where controls have failed so that these failures can be rectified and also make recommendations to management for new and improved systems (Kaplan, 2008).

From the above review, theoretical literature notes that corrective controls are designed to correct errors or risks and prevent the recurrence of further errors (Kaplan, 2008). Thuy (2007) has suggested that corrective controls are occasioned to prevent errors and irregularities from reoccurring once they are discovered. However, empirical studies on the corrective internal accounting controls have found that corrective controls are meant to rectify the errors and prevent recurrence of further errors (Kibua *et al.*, 2008, Anang, 2010, Ogembo, 2005, Byanguye, 2007 and Chelimo and Kariuki, 2013).They emphasized on the compliance with policies, standard procedures, applicable laws and regulations and corrective actions on audit reports and how these affected financial accountability (Chelimo and Kariuki, 2013). However, it was not apparent how corrective accounting controls had influenced performance of Kenya Revenue Authority, Western Kenya.

2.1.6 Linking Internal Accounting Controls and Performance

Internal accounting controls aim to ensure the reliability of financial information, the effectiveness and efficiency of operations and the compliance of laws and regulations (Zhang, 2007). Zhang (2007) further explains that efficacy of internal controls can be divided into the reliability of financial information, the effectiveness and efficiency of operations and the compliance with laws and regulations. The efficacy of the control over financial information reliability allows managers to gain a timely and in-depth understanding of organizational operations. This empowers them to make the right decisions and improve operational performance. The effectiveness and efficiency of operations ensures the' outcomes of resources utilization reduce unnecessary waste in operational activities and eventually boost operating performance. The control efficacy of the compliance with laws and regulations can prevent illegal or fraudulent behavior and ensure operating performance (Altamuro and Beatty, 2010). Hoitash *et al.* (2009) supplements that efficacy of internal controls influences financial performance via information reliability, operational effectiveness and efficiency, and legal compliance. Hence, the robustness of an internal control system affects the extent of financial stability.

In the United States of America, internal controls are documented in 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. This Act resulted from the 1980s' high-profile audit failures which led to creation of the Committee of Sponsoring Organizations (COSO), organized for the purpose of redefining internal control and the criteria for determining the effectiveness of an internal control system. The framework also points out that controls are most effective when they are "built into" the entity's infrastructure and further states that built-in controls support quality and empowerment initiatives, avoid unnecessary costs and enable quick response to changing conditions.

2.2 Empirical Review

2.2.1 Adoption of Preventive Accounting Controls on Performance

Keating *et al*. (2005) examined 133 audit results from 1997 to 1999 for nonprofit organizations using univariate tests and found that smaller organizations and organizations classified as high risk disclosed more internal control problems. They also reported that organizations with audits performed by national, large regional, and specialist firms reported fewer internal control problems.

A comparative study by Rosalind and Downs (2004) on funding schools, decentralization and corruption found that the local community awareness about funding system and value received by the schools in Brazil, Poland and England was very low. In addition, very few parents participated in school administration.

Doyle *et al*. (2005) on determinants of weaknesses in internal controls over financial reporting and the implications for earnings quality using descriptive research design and found that the company level of control problems, which cannot be audited as easily, are associated with lower earnings quality, which explore links between disclosure of material weakness and fraud, earnings management or restatements.

Using a sample of 585 Chinese firms a study by LIU Xinmin (2007) on the relationship between a firm's internal control mechanisms and the choice of innovation mode found that strategic control has a positive relationship with radical innovation, but a negative relationship with incremental innovation, while financial control has a negative relationship with radical innovation, but a positive relationship with incremental innovation.

A study by Kibua *et al* (2008) on making public secondary education in Kenya affordable found that irrational high cost of secondary education is partly due to poor governance of these schools. They also found that there was rampant corruption particularly at the administration and board levels with regard to procurement of school equipment, consumables, learning materials and hiring of both teaching and non-teaching staff.

Using exploratory research design, Ogembo (2005) studied training needs of heads of departments of secondary schools for effective curriculum implementation in Kenya and found that it is at the secondary school level that huge amounts of money are subjected to little accounting procedures and there 'are no proper structures for making schools accountable. This is because management of such schools is, in most cases undemocratic with principals and a few cronies making arbitrary decisions on expenditures.

Another study by Kiboiy (2008) on effectiveness of financial management found out that many schools in Nandi district had untrained bursars and accounts clerks. He also found out that there were a few schools which had trained accountants. However, where head teachers had no such training, the latter could not supervise the former; several schools lacked the complete range of books of account and internal control was found to be undermined by poor record keeping, absentia of a well defined separation of duties and dishonesty.

A study by Chelimo and Kariuki (2013) on evaluation of internal audit function in financial reporting of local authorities in Kenya found a significant effect of internal audit function in financial reporting in the Municipal Council of Eldoret. This is because risks are appropriately identified and managed; interaction with the various governance groups occurs as needed; there is compliance with policies, standards procedures, applicable laws and regulations; relevant legislative or regulatory issues are recognized and addressed; corrective actions on audit reports are taken by the relevant head of department; audit staff have the necessary competence, skills and the support. As a result, the study concluded that internal audit functions have an effect on financial accountability.

Reviewed literatures show that preventive internal controls are important in enhancing firms performance and competitive advantage. Prior researches use convenient sampling methods and exploratory or case study research designs and descriptive statistics; study firms in the private, local authorities and education sectors. They employ primary data based on cross-sectional study units, but fail to study revenue authorities using correlational research design. Therefore, these researches do not relate preventive accounting internal controls to performance of Kenya Revenue Authority , Western Kenya.

2.2.2 Adoption of Accounting-Error Detection Controls on Performance

Using exploratory research design, Ogembo (2005) studied training needs of heads of departments of secondary schools for effective curriculum implementation in Kenya and found that it is at the secondary school level that huge amounts of money are subjected to little accounting procedures and there 'are no proper structures for making schools accountable. This is because management of such schools is, in most cases undemocratic with principals and a few cronies making arbitrary decisions on expenditures.

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Reviewed literatures show that accounting error detection controls are important in enhancing firm's performance and competitive advantage. Prior researches use convenient sampling methods and exploratory or descriptive research designs and descriptive statistics; study firms in the private, local authorities and education sectors. They employ primary data based on cross-sectional study units, but fail to study revenue authorities using correlational research design. Therefore, no researches relating accounting error detection controls to performance of Kenya Revenue Authority in Western Kenya.

2.2.3 Adoption of Corrective Accounting Controls on Performance

A study by Chelimo and Kariuki (2013) on evaluation of internal audit function in financial reporting of local authorities in Kenya found a significant effect of internal audit function in financial reporting in the Municipal Council of Eldoret. The study concluded that internal audit functions have an effect on financial accountability.

A study by Hooks *et al.* (1994) on enhancing communication to assist in fraud prevention and detective auditing and found that flatter organizational structures and technological innovations had resulted in fewer middle managers, the traditional 'gatekeepers' of control, who were previously responsible for the assembly and distribution of information; checking and authorizing transactions and supervision of employees

A study by Kibua *et al* (2008) on making public secondary education in Kenya affordable found that irrational high cost of secondary education is partly due to poor governance of these schools. They also found that there was rampant corruption particularly at the administration and board levels with regard to procurement of school equipment, consumables, learning materials and hiring of both teaching and non-teaching staff.

Another study by Keating *et al.* (2005) used univariate tests to examine audit results for nonprofit organizations and found that smaller organizations and organizations classified as high risk disclosed more internal control problems. They also reported that organizations with audits performed by national, large regional, and specialist firms reported fewer internal control problems.

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Empirical literature show that corrective accounting controls are critical in enhancing financial reporting. Prior researches use exploratory and descriptive research designs and study firms in the private and school, but fail to study revenue authorities using correlational research design. Therefore, no researches relating corrective accounting controls to performance of Kenya Revenue Authority in Western Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter presents the research methodology, research design, study area, target population, sampling frame, data collection methods, data analysis and finally data presentation.

3.1 Research Design

The study employed a correlational research design which involves relating two or more variables and allows predictions of outcomes based on causative relationships between the variables (Cooper and Schindler, 2003). According to Mugenda and Mugenda (2003), correlational research explores the relationship between variables, that is, the effect of one thing on another and more specifically, the effect of one variable on another. Mugenda and Mugenda (2003) contend that correlational research has the advantage of being relatively cheap and it is used for the current study so as to assess the relationships between study variables.

3.2 Study Area

The study was conducted at the Kenya Revenue Authority (KRA) Western Kenya which is the sole tax collection agency of the Government of Kenya. Western Kenya was chosen because of its centrality in the East African Region and Great Lakes region where it collects a number of taxes and duties, including Pay as you earn, value added tax, income tax and customs, traffic fees among others in the region. It comprises Kisumu, Kakamega, Busia, Isibenia and Malaba.

3.3 Target Population

The target population size was all the 88 employees of KRA in Western Kenya, which comprised of debt collectors (15), auditors (20), compliance officers (28) and finance officers (25). Of the 88, 10% (8) was used to conduct validity test hence reducing the effective population to 80 employees. A Census sampling approach was used for 80 respondents since the units of study were not too many was concentrated in one organization and, therefore, accessible and not prohibitive in terms of cost, time and other resources (Saunders *et al.* 2007; Sekaran, 2000). Such a methodology enhances validity of the collected data by including certain information-rich cases for study (Sekaran, 2000). According to Kothari (2004), census approach enhances validity of the study providing a true measure of the population with no sampling error, availing detailed information about small sub-groups within the population and providing benchmark data for future studies.

3.4 Data Collection

Primary data was collected using a semi-structured questionnaire. The researcher administered the questionnaires through the drop and pick later method. The questionnaires were administered to the employees of KRA, western Kenya. Secondary data was collected using document review of financial statements, journals, ledgers, cash books, cash flow summaries, and revenue collections.

3.4.1 Sources of Data

The study employed both primary and secondary data on internal control mechanisms and performance of KRA, western Kenya. Primary data was collected using semi-structured questionnaires administered to the head of finance of the authority drawn from various sections/departments while the secondary data was collected from different sources including audited published financial statements of the authority, journals, ledgers, cash books, cash flow summaries, and revenue collections reports.

3.4.2 Data Collection Procedure

Primary data was collected through questionnaires. According to Dillman (2000), within business and management research, the greatest use of questionnaires is made in the survey strategy. This is because each respondent is asked to respond to the same set of questions and it provides an efficient way of collecting responses from a large sample prior to quantitative analysis. Secondary data was obtained through desk review of documented sources. According to Robson (2002), desk review technique involves critical assessment of documentations without necessarily or if need be prior to going to the field of study.

3.4.3 Reliability Test for Data Collection Instrument

Reliability refers to the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials. Primary data research instrument reliability was tested using Cronbach's Alpha Method (Cronbach, 1951). According to Sekaran (2001), alpha values for each variable under study should not be less than 0.7 for the statements in the instruments to be deemed reliable. As such all the statements under each variable were subjected to this test and results compared to the threshold of 0.7. The alpha values of all variables were above 0.70 (see Table 3.5 below).

Table 3.5 Summary of Cronbach's Alpha Reliability Coefficients

Variable	No. of Items	Cronbach's Alpha
Preventive Internal Accounting Controls	5	0.820
Accounting-Error Correction Controls	4	0.784
Corrective Internal Accounting Controls	3	0.877
Internal Accounting Control Mechanisms	3	0.899

Source: Survey Data, 2014

Preventive internal accounting controls had alpha of 0.820, Accounting-Error Correction controls had 0.784, corrective internal accounting controls had 0.877 and internal accounting control mechanisms had 0.899. This indicates strong internal consistency among measures of variable items. This implies that respondents who tended to select high scores for one item were likely to select high scores for others. Similarly, those who select low scores for one item are likely to select low scores for others. The data collection instrument was therefore reliable and acceptable for the purposes of the study. This enhances the ability to predict outcomes using the scores and justifies the aggregation of the arithmetic mean. However, the data were piloted at KRA Western Kenya.

3.4.4 Validity Test for Data Collection Instrument

The validity of the data collection instruments was done using experts in the area of study to edit the questionnaire. In addition, validity was enhanced by conducting a pilot study which is aimed at refining the instruments. As proposed by Mugenda and Mugenda (1999), the pilot was administered on 10 % of the participants from each study stratum totaling to 9 respondents. These 9 who participated in the pilot were not included in the final study.

3.5 Data Analysis and Presentation

Data was analyzed using both descriptive statistics such as mean, standard deviation, mode and median; and Pearson correlation analysis was employed. Data was presented in percentages, frequencies charts and tables.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

This chapter contains a detailed presentation of the results of the study which have been discussed under thematic areas and sub-sections in line with the research objective. Information analyzed was generated from questionnaires administered to sampled respondents. Data was analyzed by use of SPSS program. Closed-ended questions were grouped, analyzed and presented on tables, graphs and charts. The interpretation and presentation of data gathered in this study was analyzed and addressed the objectives of the study.

4.1 Response Rate

The researcher administered the questionnaires in person to the respondents. Out of the 80 questionnaires administered to the respondents, 72 were returned constituting a response rate of 90 % of the administered questionnaires.

4.2 Demographic Characteristics of the Sample

The study sought to establish the background of the respondents in the study in terms of age, work experience and departmental affiliation. The results were as shown in following sections.

4.2.1 Respondents' Age Bracket

The respondents were also asked to respond on their ages. The findings are presented below in the categories of ages between 26-30 years, 31-35 years and 35 years and above.

Table 4.1 Respondents' Age

Respondents Age	Frequency	Valid Percent	Cumulative Percent
26-30 Years	10	13.9	13.9
31-35 Years	26	36.1	50.0
Above 35 Years	36	50.0	100.0
Total	72	100.0	

Source: Survey Data, 2014

Table 4.1 reveals that majority of those interviewed were in the age bracket of above 35 years that is, 36 out of the total 72 that translated to 50.0 %. They were followed at a distance by those in the age group of 31-35 years who formed the 36.1 % of the respondents. The least percentage obtained was that in the age brackets of 26-30 years who were an insignificant 13.9 %.

Table 4.2 Departmental Affiliation

Department	Frequency	Valid Percent	Cumulative Percent
Debt Collection	8	11.1	11.1
Accounts	13	18.1	29.2
Compliance	27	37.5	66.7
Finance	24	33.3	100.0
Total	72	100.0	

Source: Survey Data, 2014

Table 4.2 reveals that majority of those interviewed were from compliance department that is, 27 out of the total 72 that translated to 37.5 %. They were followed by those drawn from finance department who formed the 33.3 % of the respondents. The least percentage obtained those from debt collection department who had an insignificant 11.1 %.

Table 4.3 Working Experience

Years of Service	Frequency	Valid Percent	Cumulative Percent
2-4 Years	8	11.1	11.1
5-7 Years	21	29.2	40.3
Above 7 Years	43	59.7	100.0
Total	72	100.0	

Source: Survey Data, 2014

The respondents were also asked to state the numbers of years in service of KRA (work experience) they had served at their respective departments. The findings are presented in table 4.3.4 below. The findings revealed that 8 (11.1 %) of the respondents had served the respective departments the shortest time. However, from Table 4.3, it can also be revealed that the categories of 5-7 years and above 7 years had highest concentration as they obtained 29.2 % and 59.7 % respectively.

4.3 Adoption of Preventive Accounting Controls on Performance

To achieve this objective, descriptive statistic and Pearson's correlation analysis was conducted and the results are summarized in the sub-sections below.

Table 4.4 Descriptive Statistics on Preventive Internal Accounting Controls

Constructs	4	3	2	1	Mean	Std. Dev
a. Duties are not clearly defined to each member	15	18	22	17	2.4306	1.07240
	20.8 %	25.0 %	30.6 %	23.6 %		
b. Duties are cross-cutting	36	16	11	9	3.0972	1.07677
	50.0 %	22.2 %	15.3 %	12.5 %		
c. Team work in performance of duties	11	26	19	16	2.3472	0.99520
	15.3 %	26.4 %	36.1 %	22.2%		
d. Staffers extent beyond their job design	8	14	23	27	2.0417	1.01312
	11.1 %	19.4 %	31.9 %	37.5 %		
e. Work generally not well defined	6	15	21	30	1.9583	0.98492
	8.3 %	20.8 %	29.2 %	41.7 %		
	Overall	Mean	2.375		1.028482	

Key: *Very Great Extent=4, Great Extent=3, Moderate Extent=2, Not at all=1*

Source: Survey Data, 2014

Table 4.4 show that majority of the respondents believe that duties at KRA, Western Kenya were cross cutting (Mean = 3.0972, Std.dev = 1.07677). Specifically, a vast majority of respondents agreed to a very great extent (50.0 %) that duties at KRA were cross-cutting. Only 15.3 % agreed to a moderate extent while 12.5 % were indifferent about the question. These results are consistent with previous studies (Chye *et al*., 2010, Schaefer and Peluchette, 2010 and Young and Cardoso, 2009) who found that adequate separation of duties (not having the same person both authorize and process transactions), proper authorization of transactions (a supervisor authorizes a purchase by reviewing and approving the purchase request) and adequate documentation and control of assets (when purchases are made, there should be an approved purchase request and an invoice and receiving documents to show delivery of the items).

Table 4.5 Results of Bi-Variate Pearson's Correlation Analysis between Preventive Accounting Controls and Performance

Variables		1	2
	Pearson Correlation	1	
1. Preventive Accounting Controls	Sig. (2-tailed)		
	N	72	
	Pearson Correlation	.415**	1
2. Meeting revenue targets	Sig. (2-tailed)	.000	
	N	72	72

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

Source: Survey Data, 2014

When the preventive accounting controls were correlated with performance measured in terms of meeting revenue targets, the correlation coefficient was positive and significant ($r = 0.415$, $p<0.01$). This implies that instituting preventive accounting controls leads to increase in performance as measured in terms of meeting revenue targets. The findings are consistent with those of Keating *et al.* (2005) who reported a positive relationship between internal accounting controls and performance. However, the findings contradict those of LIU Xinmin (2007) who found a negative association between internal accounting controls and performance measured in terms of innovativeness.

Bi-variate results between preventive accounting controls and Kenya Revenue Authority performance show that preventive accounting controls positively associates with performance measured in terms of meeting revenue targets.

4.4 Adoption of Accounting Error Detection Controls on Performance

To achieve this objective, descriptive statistic and Pearson's correlation analysis was conducted and the results are summarized in the sub-sections below.

Table 4.6 Descriptive Statistics on Accounting-Error Detection Controls

	5	4	3	2	1	Mean	Std. Dev
a. Preparation of exception reports.	21	21	12	9	9	**3.5000**	**1.36351**
	29.2 %	29.2 %	16.7 %	12.5 %	12.5 %		
b. Computer reports of occurrence are not prepared regularly.	8	3	18	13	30	**2.2500**	**1.34007**
	11.1 %	4.2 %	25.0 %	18.1 %	41.7 %		
c. Bank and general ledger reconciliation are done regularly.	27	18	12	9	6	**3.7083**	**1.31554**
	37.5 %	25.0 %	16.7 %	12.5 %	8.3 %		
d. Periodic audits are done on regular basis.	28	22	11	7	4	**3.8750**	**1.19786**
	38.9 %	30.6 %	15.3 %	9.7 %	5.6 %		
			Overall	**Mean**	**3.3333**		**1.304245**

Key: *Strongly agree=5, Agree=4, Neutral=3, Disagree=2, strongly disagree=1*

Source: Survey Data, 2014

It is clear from table 4.5.1 above that majority of the respondents believed that periodic audits are done on a regular basis (Mean = 3.8750, Std.dev = 1.19786). Specifically, majority of respondents strongly agreed (38.9 %) that periodic audits were done regularly in KRA. Only 9.7 % disagreed while 5.6 % were neutral about that issue. These results are consistent with previous studies and theoretical predictions (Chye *et al.*, 2010, Millichamp, 2008) who argued that detective controls are meant to search for and identify errors on a timely basis after they have occurred. They can also be used to measure the effectiveness of preventive controls. In some cases, it may not be possible to have a preventative control and so detective controls are the most effective way to manage certain types of risks (Chye *et al.*, 2010).

Table 4.7 Results of Bi-Variate Pearson's Correlation Analysis between Accounting Error Detection Controls and Performance

Variables		1	2
1. Detective Accounting Controls	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	72	
2. Meeting revenue targets	Pearson Correlation	.243**	1
	Sig. (2-tailed)	.002	
	N	72	72

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

Source: Survey Data, 2014

Accounting error detection controls had a positive and significant correlation with performance measured in terms of meeting revenue targets ($r = 0.243$, $p<0.01$). This implies that putting in place accounting error detection controls leads to increase in performance as measured in terms of meeting revenue targets. The finding is contradicts that of Doyle *et al.* (2005) who found that the company level of control problems, which cannot be audited as easily, are associated with lower earnings quality. However, the finding is in tandem with that of Keating *et al.* (2005) who reported a positive relationship between internal accounting controls and performance.

Bi-variate results between accounting error detection controls and Kenya Revenue Authority performance show that accounting error detection controls positively associates with performance measured in terms of meeting revenue targets.

4.5 Adoption of Corrective Accounting Controls on Performance

To achieve the third objective, Pearson's correlation analysis was run. The results are presented in the sub-section below.

Table 4.8 Results of Bi-Variate Pearson's Correlation Analysis between Corrective Accounting Controls and Performance

Variables		1	2
1. Corrective Accounting Controls	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	72	
2. Meeting revenue targets	Pearson Correlation	.149	1
	Sig. (2-tailed)	.211	
	N	72	72

Source: Survey Data, 2014

Corrective accounting controls had a positive and insignificant correlation with performance measured in terms of meeting revenue targets ($r = 0.149$, $p>0.05$). This implies that putting in place accounting error detection controls leads to an insignificant increase in performance as measured in terms of meeting revenue targets. The findings are consistent with those of Keating *et al.* (2005) who reported a positive relationship between internal accounting controls and performance. However, the findings contradict those of LIU Xinmin (2007) who found a negative association between internal accounting controls and performance measured in terms of innovativeness.

Bi-variate results between corrective accounting controls and Kenya Revenue Authority performance show that corrective accounting controls positively associates with performance measured in terms of meeting revenue targets.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The chapter presents the summary of the study findings, conclusions, limitations of the study and finally recommendations for further research.

5.1 Summary of the Findings

Bivariate analysis using Pearson's correlation shows a moderate positive association between the predictor variables and performance with varying significance. Specifically, bi-variate results between preventive accounting controls, accounting error detection controls and corrective accounting controls show a positive association with Kenya Revenue Authority performance measured in terms of meeting revenue targets.

5.2 Conclusions

The study conclusions are outlined as per the objectives as follows:

From the findings of objective one, it can be concluded that t instituting preventive accounting controls affects performance positively. From the findings of objective two, it can be concluded that use of accounting error detection controls affects performance positively and lastly from the findings of objective three, it can be concluded that application of corrective accounting controls influences performance positively.

5.3 Recommendations of the Study

Based on conclusion of objective one, the management of KRA continues to intensify use of preventive accounting controls as this enhances performance of the authority.

From the conclusion of objective two, the management of KRA to emphasize on accounting error detection controls as these are found to improve performance of the authority.

Similarly, from conclusion of objective three, managers at KRA continue applying corrective accounting controls as these leads to high performance of the authority.

5.4 Limitations of the Study

A number of limitations were identified during the conduct of this study. First, the study focused on KRA western Kenya and KRA branches in other regions were not included. Secondly, the study was done in one organization, hence restricting generalizations of the findings. Lastly, the study relied on opinions given by respondents and did not collect secondary data on performance of KRA to compliment the primary data in form of opinions given by the respondents.

5.5 Suggestions for further research

In view of the above limitations, the study recommends the following areas for further research. First, the effect of preventive accounting controls on profitability of firms in western Kenya. Second, the relationship between corrective accounting controls and performance of revenue authorities in East Africa and effect of managerial talent in executing internal accounting controls on performance of firms in Kenya.

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