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EFFECT OF COMPUTERIZED AUDIT SYSTEM ON FINANCIAL MANAGEMENT AT WATER RESOURCES MANAGEMENT AUTHORITY IN NAIROBI COUNTY, KENYA

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Abstract

Accounting and auditing systems have been computerized across several public entities. Lack of proper control mechanisms and audit trails have created avenues for corrupt activities in Kenya's public sector. The primary objective of this study was to establish the effect of computerized audit system on financial management at Water Resources Management Authority (WRMA). The study was conducted in WRMA headquarters based in Nairobi, Kenya. Descriptive research design was employed. The study targeted 67 employees attached to the ICT, auditing, and finance/accounting departments as well as management staff. A census design was adopted. A structured questionnaire was first pilot tested to assess its reliability and validity. The collected data were analyzed with the aid of SPSS using descriptive and inferential statistics. The study established that computer-assisted audit techniques and internal controls influenced financial management in WRMA. The study recommended that WRMA should have sound CAATs put in place to identify errors and mitigate financial misappropriation. The internal controls adopted ought to be effective and fully adhere to.

Keywords: Computer assisted audit techniques, computerized audit system, financial management, internal controls, Water Resource Management Authority

INTRODUCTION

Technology revolution in both accounting and auditing is argued to have begun more than half a century ago with the first operational business computer (Fadzil et al., 2005). The accounting systems of many companies large or small are computer-based. It is further argued that there should be complete understanding of the controls in a computer-based environment, and how they impact on the auditor's assessment of risk, and the subsequent audit procedures. The aforementioned procedures according to ACCA (2011) are said to often involve employing computer-assisted audit techniques (CAATs). According to Jones and Young (2006), electronic data process (EDP) auditors established the Electronic Data Processing Auditors Association (EDPAA). The goal of the association was to formulate guidelines, procedures, and standards for EDP audits.

Diamond and Khemani (2005) studied financial management information systems (FMIS) in developing countries. They argued that FMIS design should introduce an improved system of internal and external control for financial management. The internal controls are said to regulate the cycle of recording, analyzing, classifying, summarizing, communicating, and interpreting financial information. The internal audit function, according to the scholars, assists the management in evaluating and assessing compliance with the aforementioned controls. On the other hand, the external control system is exercised through external auditing executed by the supreme audit institution. The Ugandan Government has been in the process of implementing a comprehensive financial management reform program objected to enhance the budget and expenditure management processes and both the central and decentralized government levels. The FMIS system in Uganda provides a facility to allow the generation of cash-based year-end financial statements to meet the audit requirements.

It is asserted that in early 1990s, African countries began to focus on the improvement of public finance specifically, on budget and expenditure management reforms (Heidenhof, 2002). The foregoing is said to have been occasioned by donors' concerns. African governments commenced a critical review of hitherto existing systems and processes. Due to the realization that the existing systems and processes were outdated, integrated financial management systems (IFMIs) were recommended. IFMISs are financial management tools that incorporate the use of computerized systems. According to a report by the United States Agency for International Development (USAID, 2008), the scope and scale of IFMIS can vary. It includes amongst others, auditing processes across national government, local government, and other public sector and quasi-governmental agencies and operations.

It is observed that a comprehensive and well integrated system will, among others, provide a complete audit trail to facilitate audits. It is further posited that, business process reengineering or redesign (BPR) is a critical aspect of IFMIS. BPR is said to be a continuous process that is recommended to be institutionalized. USAID advises that in order to ensure that BPR remains a critical focus long after an IFMIS has been put in place, it can be integrated into the government's internal control and internal audit functions a part of the risk management process. In tandem with audit function, the aforementioned is bound to provide a formal framework for establishing risks, errors, and potential instances of fraud and a framework for responding to those risks (USAID, 2008).

According to Otieno and Oima (2013) in their study on the effect of computerized accounting systems on audit risk management in public enterprises within Kisumu County, Kenya, they noted that as the computers become smaller and more efficient, the computerization of accounting information system has grown across the financial service industry. The foregoing has been consequential in that, audit risk management was established to be significantly related to assessment and determination of risk, monitoring and evaluation control awareness, technology, attitude, and perception. Otieno and Oima further posited that there exists a significant relationship between computerized accounting systems and audit risk management in public enterprises. Moreover, attitude was found to significantly affect the employees' perception towards implementation of computerized accounting systems.

Kenya Anti Corruption Commission (KACC, 2008) spelt out guidelines for corruption prevention on ICT systems in the public sector. The Commission alleged that there were instances where there was a revenue collection system that did not have audit trails and standard access controls mechanism. It was further asserted that, while computerization provides undoubted benefits, it also carries substantial risks to financial and information security. It is argued in tandem that, computerization changes not only how things are done but also the risks they embody. It is believed that risks are bound to be witnessed whenever and wherever a computer is used and technical of managerial safeguards are lacking. KACC further asserts that in some public organizations, there is no separation of duties between IT operations and other departments such as finance. It is exemplified that in some organizations the IT administrator can perform tasks in the finance department. It is argued that failure to separate duties could probably lead to IT administrator perpetrating fraudulent activities in computerized system because there is no proper accountability in the functions allocated. More so, the situation is said to be worse in cases where there are no audit trails in the system of the audit trails are monitored and administered by the same IT administrator. In tandem with the foregoing, this study seeks to establish how computerized audit system affects financial management at Water Resources Management Authority.

Statement of the Problem

Computerized systems appear in different forms such as IFMIS, EDP, CAATs, DSA, EMCP, and CSRP among others. It is asserted that there have been changes in both accounting and auditing system which started more than five decades ago (Fadzil et al., 2005). It is further observed that accounting systems of many organizations regardless of their sizes are computerized. ACCA (2011) recommends for the incorporation of computer-assisted audit techniques in organizations as a way of managing risks.

According to KACC (2008) lack of proper control mechanisms and audit trails have created avenues for corrupt activities in Kenya's public sector. The same problem is also evident in some organizations which in spite of having computerized systems have not separated functional duties between IT operations and other departments such as finance. This is in line with the assertion that while computerization provides undoubted benefits, it also carries substantial risks to financial and information security. Therefore, when the audit system is weak or absent altogether, financial losses are likely to be incurred through corrupt activities of unscrupulous auditors and financial managers. As KACC exemplifies that there exists instances where organizations have a revenue collection system that does not have audit trails and standard access controls mechanism, a situation that creates proliferation of swindling of public funds. The foregoing affects the services that are supposed to be funded by the government through its agencies. Ultimately, the socio-economic development of the country is bound to be negated. As such, the current study was necessitated with the object of determining the effect of computerized audit system on financial management at Water Resources Management Authority.

General Research Objective

To establish the effect of computerized audit system on financial management at Water Resources Management Authority

Specific Research Objectives

i. To assess how computer assisted audit techniques affect financial management in Kenya's Water Resources Management Authority
ii. To establish the effect of internal controls on financial management in Kenya's Water Resources Management Authority

Research Hypotheses

H_{01}: Computer assisted audit techniques do not significantly affect financial management in Kenya's Water Resources Management Authority

H_{02}: Internal controls do not significantly affect financial management in Kenya's Water Resources Management Authority

THEORETICAL FRAMEWORK

In this section both the system theory and the agency theory are reviewed and discussed in context of computerized auditing and public financial management

System Theory

In Systems theory, Wang (2005) refers to information in the sense that assuming information does not necessarily involve any conscious mind, and patterns circulating (due to feedback) in the system can be called information. In other words, it can be said that information in this sense is something potentially perceived as representation, though not created or presented for that purpose. According to Kang'ethe (2002), a system is a group of related and interacting components, which work together to achieve a desired purpose or set of objectives. The writer further observes the need to have control elements to ensure that the process gives the desired level of out-put and avoid or reduce wastage. The need for efficiency and effectiveness therefore brings forth another need of ensuring harmony and synergy between the human resource as the core resource that controls other resources on the one hand and the other tools of trade, in particular modern ICT on the other hand so as to realize the objectives of office secretarial management. There is therefore the clear need to understand the perception of human resource and areas with potential for conflict in the course of interaction between the human resource and modern ICT. When computer and communication technologies are combined, the result is information technology systems, or "InfoTech". Information technology is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of information technology as a whole, it is noted that the use of computers and information are associated.

Emerging ICT can play an important role in fighting corruption in public finance systems by promoting greater comprehensiveness and transparency of information across government institutions. As a result, the introduction of IFMIS has been promoted as a core component of public financial reforms in many developing countries. Yet, experience shows that IFMIS projects tend to stall in developing countries, as they face major institutional, political, technical and operational challenges. Case studies of more successful countries indicate that factors supporting successful implementation include clear commitment of the relevant authorities to financial reform objectives, ICT readiness, sound project design, a phased approach to implementation, project management capability, as well as adequate resources and human resource capacity allocated to the project (Chena, 2009).

Agency Theory

The agency theory outlines the relationship or the dependency between an agent and a principal. The principal delegates responsibilities to the agent most often for a fee. It can also be postulated to mean the practice by which productive resources owned by one person or group are managed by another person or group of persons (Millichamp & Taylor, 2008). The agency theory is said to be one on the internal auditing theories. In the context of an organization, the agency theory agents (directors, managers, and etcetera) should act in the interest of their employers (shareholders). However, the aforementioned agents have been alleged to act in their own interest rather than on the behalf of the shareholders.

The foregoing is argued to beget mistrust between the two parties, particularly from the shareholders (employers). Consequently, the mistrust increases the inclination of enhanced monitoring of the agents' (directors and managers) activities. Upon the foregoing principle lies the foundation of auditing profession (Millichamp & Taylor, 2008). The theory further expounds on the principle agent problem, that is, agency dilemma. The dilemma is said to be occasioned by the inclination of the agent's inclination to act in his own best interest rather than those of the principal. There is a likelihood of moral hazard and conflict of interest arising in the corporate scene. It is exemplified that, the principal (shareholders) may be sufficiently concerned that at the likelihood of being exploited by the agent (directors and managers) that a dilemma may arise in hiring the right agents. The foregoing is necessitated by the desire to minimize or get rid of agency costs (Bebchuk & Fried, 2004).

EMPIRICAL REVIEW

This part captures a review of studies regarding components of computerized audit system, that is, application controls, computer-assisted audit techniques, and internal controls. Also studies on financial management, in particular public financial management are reviewed.

Computer-Assisted Audit Techniques

The objective of enterprise risk management audit and control according to a study by Lorenzo (2001) is to provide an integrated, comprehensive assessment of all the risks that an organization is exposed to and an objective and consistent approach to managing them. The scholar further asserted that, the size and complexity of large firms make computerized auditing more important. On the other hand, the firm's size and complexity make it harder to achieve an enterprise-wide view of risk auditing. Kunkel (2004) further posited that, ERP systems implementation in many corporations has resulted in increased audit related risk because of automated interdependencies among business processes and integrated relational database.

In their study, Diamond and Khemani (2005) noted that developing countries have been encouraged to reform their public expenditure management systems and have, as a result, increasingly embarked on major projects to computerize their government operations. It is averred that, the most popular among the aforementioned projects is computerizing of government accounting and payment operations through introduction of government FMIS.

A study on effect of computerized accounting systems on audit risk management in public enterprises was conducted by Otieno and Oima (2013). The study was limited to Kisumu County, Kenya. According to the study findings, the examined system risk factors included risk of breaches in system security and there was also the risk that, the information provided by the system is an inadequate. In their study on state corporations in Kenya, Odoyo et al. (2014) assert that, there is increased scrutiny of the effectiveness of internal audit function in Kenya. The internal audit function is made more challenging by the ever-changing expectations of shareholders. Technologies and e-commerce are examples of drivers of change in internal audit in Kenya.

Internal Controls

In an evaluation of the effectiveness of PFMS in Zimbabwean government departments, Muzividzi (2013) noted that, the system (PFMS) has effective internal controls with an exception on payment procedures and production of reconciliation statements. After the evaluation, it was recommended that, the system needs a reliable internal control monitoring on payment procedures. Christopher (2003) had earlier argued that, the function of the management of the government line ministries was to have competent internal auditors who complemented the effectiveness of the internal controls of the PFMS and also maintain appropriate systems for accounting and internal audit over financial auditing. The internal auditors would help the management and finance directors to execute audit consistent to the effectiveness of the internal controls of PFMS in government line ministries. Cowan (2004), reasons that the risk management is important to the implementation and that it has become the component of effective modern management. The author further observed that the effectiveness of internal controls of PFMS ought to be properly checked by independent auditors.

It is asserted that, the management has responsibility for internal controls while on the other hand, the internal audit activity essentially provides assurance to the management and the audit committee that internal controls are not only effective but are also working as intended. Oyugi (2005) in her study on fiscal decentralization in Kenya identified various challenges impeding the implementation of the programme. The study had focused on the effectiveness role of internal audit as one of the monitoring units in the management of the then Local Authority Transfer Fund (LATF). The study revealed that, LATF had not met its objectives of enhancing financial management. Rono (2006) further studied the effectiveness of the internal control system in financial management in Kenya's public universities taking a case of Egerton University. It was deduced that, evaluation of the effectiveness of the internal control systems in the university depended on the category of the departments (academic and non-academic). It was established that, internal control systems at the university under study, were effective because of the well established departments charged with the responsibility of implementing the internal controls as they undertake the financial processes.

The Public Procurement Oversight Authority (PPOA, 2007) conducted an assessment of the procurement system in Kenya. The assessment pinpointed several factors which have contributed positively to reinforcing the control systems of Kenya's procurement system in recent years. One of the factors identified was the compliance with the established sound internal audit mechanism. It was revealed that, the Internal Auditor General (IAG) is duly responsible for the internal audit function across government, including in the area of procurement. It is noted that the IAG undertakes internal control in all public entities, excluding parastatals which are controlled by the State Corporations Inspectorate that reports directly to the Office of the President (OP). A study on the effect of integrated financial management information system (IFMIS) on performance of Kenya's public sector (Njonde & Kimanzi, 2014) revealed that, IFMIS has been effective in financial reporting, budgeting, and internal controls. Yet, it was acknowledged that, indeed internal controls faced challenges.

Public Financial Management

A research study conducted in Saudi Arabia, Abu-Musa (2003) explored the perceived threats of accounting computerized accounting information systems in developing countries. The study assessed the use of accounting packages on budgeting process and internal controls on financial management of public funds. It was revealed that, a proper financial management control of public funds required use of an accounting package for accuracy and effectiveness.

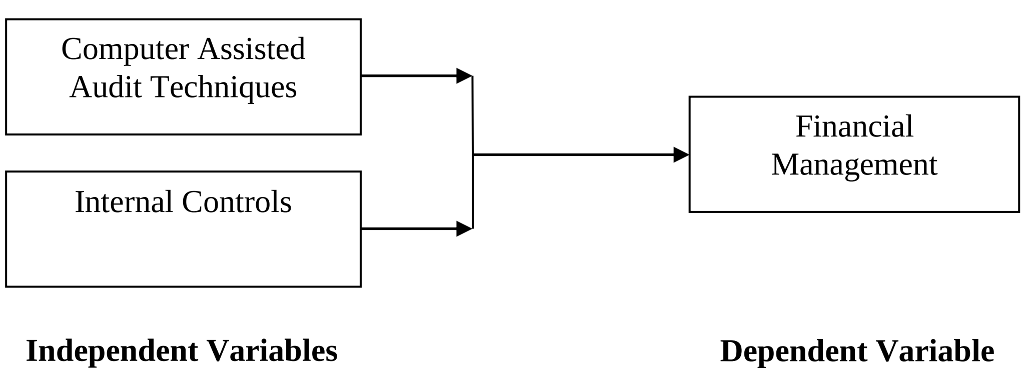
Muzividzi's (2013) study sought to assess the effectiveness of the public financial management System (PFMS) in financial planning, controlling, and monitoring of public funds in

Zimbabwean government line ministries. Contrary to expectations, ministries and departments still faced challenges in the budgeting process, internal controls, and training of end-users. The scholar further lamented that, suppliers to the government ministries and departments were still complaining of inefficiencies in financial reports updates. Financial management control of public funds would be achieved through the use of PFMS (Peterson, 2006). In a study of evaluation of public financial management performance in Zambia (Mwanza et al., 2005), the object was to assess the effectiveness of PFMS in the production of budgets, internal controls and training of users when using such system. The study established that, PFMS was effective in production of budgets and also had effective internal controls.

In Odoyo et al.'s (2014) analytical study on the role of internal audit in risk management implementation in Kenya's state corporation, it is alleged that, in spite of the Kenya Railways operating in the lucrative transport sector and being a key player in Kenya's economic development, it has been facing internal financial and operational challenges. The foregoing problems, arguably, are occasioned by poor governance of the state corporation. The implications of the financial mismanagement were so monumental that the government had to engage the Rift Valley consortium, a private entity, to run the corporation. The study further laments that, despite receiving financial assistance from the National Treasury, most state corporation in Kenya have been reporting financial deficits at the end of every financial year. The scholars cite other state firms that have collapsed, have collapsed and been revived, or have ever been on the brink of collapse. Such include, Kenya Meat Commission (KMC) and Agricultural Finance Corporation (AFC).

Conceptual Framework

Figure 1: Conceptual Framework



The figure shows the presumed relationship between the set of independent variables and the dependent variable. The independent variables are application controls, computer assisted audit techniques, and internal controls. On the other hand, the dependent variable is financial management. The conceptual framework guided the study in that the object was to establish to which extent the aforementioned independent variables influence financial management in the Water Resources Management Authority (WRMA).

METHODOLOGY

Research Design

Descriptive research design was employed. In tandem with Shields and Rangarjan's (2013) argument that, descriptive research aids in describing characteristics of a population or phenomenon under study, the current study sought to describe the opinions of the sampled respondents on issues touching on computerized audit system in public financial management. The study further adopted correlational research design where the researcher sought to establish the relationship between the various components (independent variables) of computerized audit system and public financial management (dependent variable).

Target Population

The population of the study is the population to which the research findings are generalized. The study constituted 67 employees drawn from the information and communication technology (ICT), auditing, and finance/accounting departments as well as the management staff of Water Resources Management Authority head office, Nairobi. The aforementioned employees are deemed to be the most privy with computerized audit system and financial management in the stated government corporation.

Census Design

The relatively small number (67) comprising the target population eliminated the rationale of sampling. In this regard, all members of the target population were included in the study. The census method so adopted besides being necessitated by the relatively small population of the study, also eliminated the sampling bias and sampling error. This enhanced the generalizability of the study findings

Research Instrument

A structured questionnaire was employed to collect requisite primary data from the study's respondents. Mugenda and Mugenda (2009) reason that, questionnaires are appropriate tools for collecting data in a survey research as is the case with this study. Questionnaires are, moreover, inexpensive and adequate data collection instruments. The questionnaire was used to collect data relative to the respondents' background. But more importantly, the instrument was employed to collect data pertinent to all the study variables (application controls, computer-assisted audit techniques, internal controls, and public financial management). Data regarding the study variables were on a 5-point Likert scale.

Reliability of the Research Instrument

Reliability is a measure of consistency of the research instrument. In context of this study, the Cronbach alpha (α) was used to test the reliability. Each variable was supposed to return alpha value equal to or greater than 0.7 ($\alpha \geq 0.7$) for it to be acknowledged as being reliable. As shown in Table 1, all the study variables were reliable since they returned alpha values greater than 0.7.

Table 1: Reliability Test Results

Variables	Number of Test	α
Application Controls	6	0.89
Computer-Assisted Audit Techniques	6	0. 83
Internal Controls	6	0.81
Financial Management	3	0.79

Validity of the Research Instrument

A valid instrument according to Kimberlin and Winterstein (2008) is one that measures what it purports to measure. There are different types of validity. However, in this study, the content validity was assessed. Content validity which is argued that it is not statistically measurable was determined through expert opinion of the University supervisors.

Data Analysis Approach

The collected data was analyzed by use of the Statistical Package for Social Sciences (SPSS) software. Both descriptive and inferential analyses were conducted on the collected data. Descriptive analysis involved measures of distribution, central tendencies and variation. On the other hand, inferential data analysis was in form of Pearson's moment correlation coefficient. Descriptive analysis outlined the opinions of the respondents regarding the various constructs under study. Inferential analysis, on its part, enabled drawing of conclusions pertinent to the study variables. The study findings were presented in form of frequency tables and tables of descriptive and inferential statistics.

ANALYSIS AND FINDINGS

Descriptive Findings

Computer-Assisted Audit Techniques

The study evaluated the opinions of respondents on computer-assisted audit techniques (CAAT) and financial management at Water Resources Management Authority (WRMA). The relevant descriptive findings are shown in Table 2

Table 2: Descriptive Statistics for Computer-Assisted Audit Techniques

		n	Min	Max	Mean	Std. Dev
i.	Our organization has put in place preventive controls such as segregation.	56	1	5	3.70	1.426
ii.	There are effective detective controls designed to detect and report errors and omissions as in the case of expenditures	56	1	5	3.52	1.009
iii.	The corporation has corrective controls that reduce the effect of errors, conduct back-up procedures and rerun in the organization.	56	1	5	2.39	1.139
iv.	The corporation has compensatory controls that minimize the probability of threats.	56	1	5	3.21	1.107
v.	All the IT general control is effective and implementable.	56	1	5	3.57	1.263

The study found out that respondents agreed (mean ≈ 4.00) that WRMA has put in place preventive controls such as segregation; there are effective detective controls designed to detect and report errors and omissions as in the case of expenditures; all the IT general controls are effective and implementable. However, respondents were indifferent (mean = 3.21; std dev = 1.139) that the corporation has compensatory controls that minimize the probability of threats. Respondents were found to disagreed (mean =2.39;std dev = 1.139) that the corporation has corrective controls that reduce the effect of errors, conduct back-up procedures and rerun in the organization.

Internal Controls

Moreover, the study analyzed the perceptions of respondents on internal controls at Water Resources Management Authority. Table 3 summarizes these perceptions

Table 3: Descriptive Statistics for Internal Controls

		n	Min	Max	Mean	Std. Dev
i.	Our corporation employs computer-assisted audit techniques (CAAT).	56	1	5	3.59	1.187
ii.	CAAT enhances risk management.	56	1	5	3.21	1.057
iii.	Integration of CAAT has been necessitated by the complexity of the corporation.	56	1	4	2.29	1.074
iv.	Automated interdependencies among processes have increased audit related risks.	56	1	5	3.70	1.249
v.	Our corporation has an Integrated Financial Information Management System(IFMIS)	56	1	5	3.20	1.394
vi.	The information provided by IFMIS is adequate for auditing purposes.	56	1	5	3.29	1.474

The respondents admitted (mean ≈ 4.00) to the argument that the corporation employs computer-assisted audit techniques (CAAT); automated interdependencies among processes have increased audit related risks. However, respondents were not sure (mean ≈ 3.00) whether or not CAAT enhances risk management; WRMA has an Integrated Financial Information Management System (IFMIS); or if the information provided by IFMIS is adequate for auditing purposes. Respondents also disagreed (mean = 2.29; std dev =1.074) that integration of CAAT has been necessitated by the complexity of WRMA.

Financial Management

Lastly, respondents were requested to comment on issues touching on financial management in Water Resources Management Authority. Table 4 outlines the necessary descriptive results.

Table 4: Descriptive Statistics for Financial Management

		n	Min	Max	Mean	Std. Dev
i.	Internal controls impact on financial management in our corporation.	56	1	5	3.43	1.333
ii.	IT general controls play a central role in financial management in our corporation.	56	2	5	3.71	1.140
iii.	Computer-assisted audit techniques enhance financial management in our corporation.	56	1	5	3.43	.912

The study finding found that respondents agreed (mean = 3.71; std dev = 1.140) with the proposition that IT general controls play a central role in financial management in our corporation. However, respondents were neutral (mean ≈ 3.00) that internal controls impact on financial management in WRMA; computer-assisted audit techniques enhance financial management in WRMA.

Inferential Findings

Effect of Computer-Assisted Audit Techniques on Financial Management

The study also examined how computer-assisted audit techniques (CAATs) influenced financial management in WRMA. Table 5 illustrates the relevant correlation results.

Table 5: Relationship between CAATs and Financial Management

		Financial Management
CAATs	Pearson Correlation	.839**
	Sig. (2-tailed)	.000

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

It was established that the relationship between CAATs and financial management was positive, strong and statistically significant(r = 0.839; p<0.01).This means that these techniques are very crucial to the management of finances in WRMA. Therefore, improving computer-assisted techniques would likely enhance or improve financial management.

Effect of Internal Controls on Financial Management

In addition, the study examined how internal controls affected financial management in WRMA. Table 6 shows the results of relevant correlation analysis

Table 6: Relationship between Internal Controls and Financial Management

		Financial Management
Internal Controls	Pearson Correlation	.715**
	Sig. (2-tailed)	.000

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

The study finding discovered that the relationship between internal controls and financial management was positive, strong and statistically significant (r = 0.715; p < 0.01).This means that internal controls when enhanced are likely to improve financial management in the corporation.

SUMMARY

The study found out that WRMA has put in place preventive controls such as segregation; there are effective detective controls designed to detect and report errors and omissions as in the case of expenditures; all the IT general controls are effective and implementable. However, it was uncertain whether the corporation has compensatory controls that minimize the probability of threats. It was disputed that the corporation has corrective controls that reduce the effect of errors, conduct back-up procedures and rerun in the organization. It was established that the relationship between CAATs and financial management was positive, strong and statistically significant($r = 0.839$; $p<0.01$). The study findings departed from previous scholars' works which failed to kink CAATs to financial performance (Odoyo et al., 2014).

It was agreed that the corporation employs computer-assisted audit techniques (CAAT); and that automated interdependencies among processes have increased audit related risks. It was, nevertheless, unclear whether or not CAAT enhances risk management; WRMA has an Integrated Financial Information Management System (IFMIS); or if the information provided by IFMIS is adequate for auditing purposes. It was disagreed that integration of CAAT has been necessitated by the complexity of WRMA. It was noted that the relationship between internal controls and financial management was positive, strong and statistically significant ($r = 0.715$; $p < 0.01$). The findings concurred with a previous study (Njonde & Kimanzi, 2014) that noted that IFMIS has been effective in financial reporting, budgeting, and internal controls. This implied that internal controls are important determinants of financial performance of organizations

It was admitted that application controls play a central role in financial management in our corporation. However, it was not clear if internal controls impact on financial management in WRMA. In the same line, it was uncertain if computer-assisted audit techniques enhance financial management in WRMA. Computerized audit system was generally established to be consequential to financial management in the aforesaid corporation.

CONCLUSIONS

This section presents the conclusions drawn from the study findings. It is concluded that Water Resources Management Authority has competent internal auditors. It also concluded that the corporation adheres to the established internal controls. In addition, the application controls were deduced to influence financial management in WRMA. It is concluded that WRMA has put in place preventive controls. It was also inferred that IT general controls are effective and implementable. It was concluded that computer-assisted audit techniques are very crucial to financial management. Lastly, the study concluded that internal controls are very important in financial management in WRMA.

RECOMMENDATIONS

The study recommends that Water Resources Management Authority and other State agencies should have sound application controls which should be in line with their functions. Computer-assisted audit techniques should be put in place most especially to identify errors and mitigate financial misappropriation. The internal controls put in place by WRMA ought to be effective and fully adhere to.

It is further recommended that it would be important to conduct studies on computerized audit in other State agencies besides Water Resources Management Authority. It would also be important to carry our comparative empirical studies on corporations that have adopted computerized auditing and those that still conduct manual auditing

LIMITATIONS

The study faced a number of limitations which ranged from time constrains, skepticism of some respondents to reliability of the research instrument. The period of three months may have not been enough to evaluate the computerized audit system at Water Resources Management Authority, a factor that might have compromised study findings. Moreover, some respondents were not willing to participate in the study due to the sensitivity of some of the data being sought. In addition, the instrument might have failed to capture all the opinions of the respondents given that it contained close-ended questions.

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