

Effect of Internal Control on Fraud Detection and Prevention in District Treasuries of Kakamega County

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ABSTRACT: *This paper aims to ascertain the effect of internal controls on fraud prevention and detection in district treasuries of Kakamega County. Purposive sampling method was used to select Treasury Staffs while simple random sampling method was used to select Heads of Departments to respond to the data collection instruments. The study used closed ended questionnaires designed for treasury staff and their clients and was administered by the researcher through drop and pick method. Key respondents were Senior Treasury Staffs and Heads of Departments in Kakamega County. Data collected was analysed using both descriptive and inferential statistics using Statistical Package for the Social Science (SPSS). Reliability and Validity of data collection instruments was ascertained through the test-retest method. Findings of the study revealed that there was a statistically significant and positive relationship between the adequacy of internal control systems and fraud prevention and detection in district treasuries in Kakamega County. The study recommends that effective and efficient internal control policies and procedures should be put in place to prevent and detect fraud within district treasuries and other institutions.*

KEY WORDS : *Control environment, Efficiency, Control activity, Fraud, Risk*

I. BACKGROUND OF THE STUDY

Investors and other stakeholders in public and private sector institutions are concerned with the safety of their assets. Shareholders delegate rights to managers to act in the principal's best interest. This separation of ownership from control implies a loss of effective control by shareholders and taxpayers over managerial decisions hence concerns over the safety of their investment. It is therefore important that good governance and accountable policy practices are adopted to achieve organizational goal of safeguarding shareholders assets and wealth maximization. Key among the best practices is the control measures put in place to detect and prevent frauds within the entity whether private or public (COSO, 2011).

The Association of Certified Fraud Examiners 2002 report to the USA Federal Government Occupational Fraud and Abuse reveals that 46.2% of frauds occur because the victims lacked sufficient controls to prevent the fraud. In Kenya, The Treasury News of 2010 revealed that between 25 and 30 percent of the national budget or about Kshs. 270 billion is lost annually through fraud. These losses were mainly attributed to the escalation of costs in Government procurement occasioned by weak internal controls. Reports from watchdog institutions also reveals that government departments do not properly account for funds allocated to them.

II. STATEMENT OF THE RESEARCH PROBLEM

Plunder of public resources goes on in Government in spite of the internal control systems which are put in place and structured to deal with elements of fraud at detective and preventative levels. An effective system of internal control can give managers the means to provide accountability for their programs as well as the means to obtain reasonable assurance that the programs they direct meet established goals and objectives. (NYSGAIC, 2007) According to Auditor General Report of 2011 six districts in Kakamega County could not account for Kshs 40 million allocated to them due to irregularities associated with weak controls systems. National Tax Payers Association of Kenya (NTA) report indicated that 60% of the CDF allocation in the three districts in Kakamega County could not be accounted for due to misappropriation of funds (NTA, 2012). Also, the Efficiency Monitoring Unit, Internal Auditor General in the Ministry of Finance, Inspectorate of State Corporations, the Office of the Auditor General, and the Kenya Anti-Corruption Commission all were established and mandated to recommend for effective internal controls systems and deal with acts of fraud in one way or the other in Kenya. It is upon this backdrop that this study sought to investigate the relationship

between internal controls systems put in place to manage public resources and Fraud Detection and Prevention in the District Treasuries in Kakamega County.

III. OBJECTIVE OF THE STUDY

The study was guided by the following specific objective:

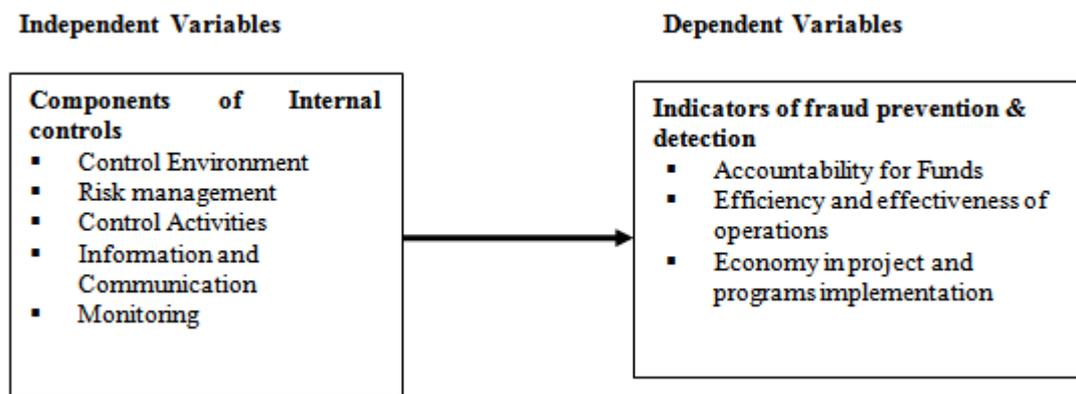
To establish the effect of internal control systems on fraud detection and prevention in the District Treasury in Kakamega County.

Research Hypothesis

The study was guided by the following research hypothesis;

H₀1: There is no statistically significant effect of internal control systems on fraud detection and prevention in the District Treasuries in Kakamega County

Conceptual Framework



IV. LITERATURE REVIEW

Internal Control : Internal control is defined as a process affected by organisation’s structure, work and authority flows, people and management information systems, designed to help the organisation accomplish specific goals or objectives (AICPA, 2003). Internal control systems are not new to the Government and private sector organisations. There are checks and balances already in place which have been part of normal day to day working of the Government Ministries and Departments. In both sectors, accountability is of prime importance. (COSO, 2011). Most of the internationally accepted standards and best practices in internal control has classified internal controls into five components namely:

- **Control Environment** : The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the integrity, ethical values and competence of the entity’s people; management’s philosophy and operating style; the way management assigns authority and responsibility, organizes and develops its people; and the attention and direction provided by the board of directors (COSO, 2011). In an empirical study by Valentine, Godkin and Lucero (2002), a positive association was found between ethical environment and employee organizational commitment. Based on a sample of 304 young working adults, Valentine et al (2002) found that ethical environment was positively and significantly associated with the level of employees’ organizational commitment. Furthermore, in a recent study, Kizirian and Leese (2004) studied audit papers of 60 information systems audit engagements and found that the ethical tone of the audit clients’ management has a significant impact on the strength of their security controls.

• **Risk Assessment and Management** : Risk assessment is the identification and analysis of relevant risks which can impair the achievement of objectives, forming a basis for determining how the risks should be managed. Because economic, industry, regulatory and operating conditions will continue to change, mechanisms are needed to identify and deal with the special risks associated with change. According to the IIA-PPF (1999), risks are assessed in order to determine the likelihood of an event occurring, the impact, and risk tolerance level. Once identified the risks are then classified as high, medium and low. Based on the accuracy of the assessment, risk tolerance level can then be determine. In order to determine whether risk management are effective, relevant risk information should be captured and communicated in a timely manner across the organisation, enabling staffs, management and the board to carry out their responsibilities. (IIA: PPF, 1999)

• **Control Activities** : According to NYSGAAIC Act 2007 many different control activities can be used to counter the risks that threaten an organization's success. Most control activities, however, can be grouped into two categories: detection and prevention control activities. Prevention activities are designed to deter the occurrence of an undesirable event. The development of these controls involves predicting potential problems before they occur and implementing ways to avoid them. Detection activities are designed to identify undesirable events that do occur, and alert management about what has happened. Prevention controls tend to be more expensive than detection controls. Costs and benefits should be assessed before control activities are implemented. Management should also remember that an excessive use of prevention controls can impede productivity. No one control activity provides all of the answers to risk management problems. In some situations, a combination of control activities should be used, and in others, one control activity could substitute for another.

• **Information and Communication** : According to NYSGAAIC Act 2007, communication is the exchange of useful information between and among people and organizations to support decisions and coordinate activities. Information should be communicated to management and other employees who need it in a form and within a timeframe that helps them to carry out their responsibilities. Communication with customers, Suppliers, regulators and other outside parties are also essential for effective internal control. Information can be communicated verbally, in writing and electronically. While verbal communication may be sufficient for many day-to-day activities, it is best to document important information. This provides a more permanent record and enables managers and others to review the information. Information should travel in all directions to ensure that all members of the organization are informed and those decisions and actions of different units are communicated and coordinated.

• **Monitoring and Assurance** : Internal control systems need to be monitored - a process that assesses the quality of the system's performance over time. This is accomplished through ongoing monitoring activities, separate evaluations or a combination of the two. On-going monitoring occurs in the course of operations. It includes regular management and supervisory activities, and other actions personnel take in performing their duties. The scope and frequency of separate evaluations will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures. According to NYSGAAIC Act of 2007 monitoring is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. Management should focus monitoring efforts on internal control and achievement of the organization's mission. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, risk tolerance levels and their own responsibilities.

The Concept of Fraud : Fraud, as is defined in accounting standards reports, "is an intentional act that results in a material misstatement in financial statements that are the subject of an audit" (AICPA, 2003). There are two ways in which a material misstatement could occur with respect to fraud: misappropriation of assets and fraudulent financial reporting. Misappropriation of assets, as the name suggests, refers to the theft of company assets that may result in the company's financial statements being materiality misstated (AICPA, 2003). According to ACFE (2007), fraud is any intentional or deliberate act to deprive another of property or money by deception or other unfair means. The association also classifies fraud into eight categories namely; misrepresentation of material facts, concealment of material facts, corruption, illegal gratuity, extortion, conflict of interest, embezzlement and theft .Fraud refers to any illegal act characterized by deceit, concealment, or violation of trust. According to Cressey, Martin et al. (2002), three factors that are present in every situation of fraud: motive or pressure – the need for committing fraud: need for money, etc; rationalization – the mind-set of the fraudster that justifies them to commit fraud; and opportunity – the situation that enables fraud to occur – often when internal controls are weak or non-existent.

Empirical review :Inconsistent results have been found in relation to internal controls existence and the likelihood of fraud (Beasley, 1996; McMullen, 1960; Dechow et al., 1996). However, internal control system effectiveness has been found to reduce the likelihood that companies are sanctioned for fraudulent financial reporting (Abbott et al., 2000). A positive relation was found between concentration of power in the hands of insiders and the likelihood of issuing fraudulent financial statements (Dunn, 2004). In South Africa, a negative relation has been found between the proportion of independent directors and institutional investors and the likelihood of fraud, while a positive relation was found between duality (chair of board and also the chief executive officer) and the likelihood of fraud, (Sharma, 2004). One difference from this study to others was that in his measure of fraud (Sharma, 2004) used both financial statement fraud and misappropriation of assets. Analysts suggest that with sufficient pressure, incentive and rationalisation, the perpetrators often turn their attention towards the opportunities that exist within the public financial management system's internal control structure that could allow for fraud to be committed (Mars Group, 2008).

In Kenya, the GFRP directs the Accounting Officer of ministries to ensure that it has, and maintains, effective, efficient and transparent systems of financial and risk management and internal control to safe guard against fraud. The GFRP further requires the accounting officers to ensure that a system of internal auditing exists under the control and direction of an Internal Auditor General to evaluate the effectiveness of internal controls. The impact of organizational environment on fraud has been consistently determined in previous studies. Employee theft has been found to be influenced by organization's work climate (Weber et al., 2003; Appelbaum et al., 2006; Kulas et al., 2007) and employees attitudes toward honesty (Greenberg, 2002). It has also been determined that organizational variables might be more likely to influence deviance directed at harming organizations (Robinson and Bennet, 1995). Rae and Subramaniam (2008) found the quality of internal control procedures has a moderating effect on the relationship between perceptions of organizational justice and fraud. The authors suggest that strategies relating to fraud need to focus on organizational factors such as work environment, internal control activities, and training. The importance of internal control mechanisms in curbing fraud-bent behaviour, specifically employee fraud, has been investigated. Studies relating to internal controls provide relevant, albeit limited, research concerning employee fraud (O'Leary's et al; 2006). Employees' perceptions on both certainty and severity of organizational sanctions were found to be related to employee theft (Hollinger and Clark, 1983). Holmes et al (2002) found that whenever top management firmly supports internal control, internal perpetrators and fraud were less likely to occur. Another study found that access to various control mechanism alone does not curb losses due to fraud (Holtfreter, 2004). Breaking the Fraud Triangle is the key to fraud detection. Breaking the Fraud Triangle implies that an organization must remove one of the elements in the fraud triangle in order to reduce the likelihood of fraudulent activities. Out of the three elements, removal of opportunity is most directly affected by the system of internal controls and generally provides the most actionable route to detection of fraud. (Cressey Cendrowski, et al, 2002)

V. RESEARCH METHODOLOGY

- **Research Design** : The study used descriptive survey design to collect data from the key respondent. This method was applied because of its convenience and reliability in collecting data in an exploratory study. According to Mugenda and Mugenda (2003), descriptive survey design is considered to be relevant in a survey because it involves collecting data which can then be used to answer the research question in the current state of the object of the study.

- **The Study Area** : The study was conducted in Kakamega County. The county is located in the Western region of Kenya. It consists of 11 operational districts namely Kakamega Central, Kakamega East, and Kakamega South, Kakamega North, Khwisero, Butere, Mumias, Matungu, Lugari, Matete and Likuyani. It borders counties like Bungoma to the North, Vihiga to the West, Nandi to the South and Uasin Gishu to the East. It lies between Longitude 34⁰ E and 42⁰ E, Latitude 0⁰ and 3⁰

- **Sampling Techniques** : The target respondents in the participating treasuries comprised of key informants who were Senior Treasury Staffs and Head of Departments (HODs) in the respective districts. HODs were considered appropriate because they were clients who sought for financial services from the district treasuries. Purposive sampling technique was used to select the key informants who were the District Accountants, District Internal Auditors and Provincial Departmental Heads. This research method was employed because the targeted treasury officials and HODs had access to vital information, experience and professional skills that were necessary and relevant for the study. Due to their position of responsibility they had a better understanding of internal controls in relation to the use of public funds.

- Sample Size :** In this study there were 31 key respondents sampled out of a population of 122. In order to obtain the optimum sample size the researcher employed Kerlinger’s method of determining sample size. According to Kerlinger (1983), a sample is representative of the total population if it ranges between 10% -30% of the total population. That translated to 20% which was within the acceptable range. The respondents comprised of 6 District Accountants and 5 District Internal Auditors and 20 HODs .The six accountant and five auditors were sampled from a population of 22 while 20 HODs were randomly sampled out of a population of 100 and majority were from Kakamega central since most of them had jurisdiction that covers the whole county. The specific number of respondents that were in each cadre was obtained proportionately (see Table 3.1).

Table 3.1: Sample Size of Respondents

Category	Population	Sample Size	Sampled Percentage (%)
District Accountants	11	6	54.55
District Internal Auditors	11	5	45.45
Heads of Department	100	20	20.0
Total	122	31	25.41

Source: Researcher (2014)

- Distribution of Respondents per District**

The specific distribution of respondent in the six districts was as shown in Table 3.2:

Table 3.2: Sample Distribution of Respondents per District

Name of District	Accountants	Auditors	HODs	Total
Kakamega Central	1	1	6	8
Kakamega East	1	-	2	4
Kakamega South	1	-	1	3
Kakamega North	1	1	-	2
Mumias	1	1	-	2
Butere	1	1	5	7
Khwisero	-	1	3	5
Total	6	5	20	31

Source: Researcher (2014)

- Data Collection Procedure :** The researchers employed the drop and pick method when administering the questionnaire and allowed respondents up to 14 days to respond to the questionnaire items at their convenience. During the dropping of the instruments the researcher established rapport with the respondents to encourage them to respond to the data collection instruments acutely and precisely and also assured them of confidentiality for any information obtained from them. Secondary data was collected by studying and analysing financial documents and records held at the district treasuries’ library. it contained detailed information in relation to internal control which Ministry of Finance have put in place to ensure prudent management of resources in the districts. Ministry of Finance operating manuals and guidelines and Acts of parliament like Public Finance Management Act of 2012, Public Procurement and Disposal Act 2005, Ethics and Anti-Corruption Act 2003, Government Financial Regulations and Procedures (GFRP), Treasury & DPM circulars, Code of Regulations, Internal Audit Manuals and Charter, International Accounting Standards Manuals, Audit and Accounting reports and correspondences.

- Reliability of the Study Instruments :** Test-retest technique was used to measure reliability of the data collection instruments. These involved administering the same instrument twice to a sample of 10 treasury staff members and 10 heads of department in the neighbouring Vihiga County and after keeping the initial conditions constant administered the same test to the same respondents 2 weeks later. The responses from the first and second round of testing were analysed using Pearson Correlation of Reliability and a comparison drawn using Cronbach’s Alpha Index to determine the coefficient of reliability. The study instruments obtained a coefficient of reliability index of 0.836 which is above 0.7 the rule of the thumb.

- **Data Analysis and Presentation Techniques :** Data were analysed by use of both descriptive and inferential statistics using Statistical Package for the Social Sciences (SPSS) version 20.0 for windows.

The regression model was as follows;

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

Y is the value of the Dependent variable (Y), what is being predicted or explained

α (Alpha) is the Constant or intercept

β₁ β₂ β₃ β₄ β₅ is Beta coefficients

VI. RESULTS AND DISCUSSION

- **Duty Stations of Respondents :** Respondents were asked to state the districts where they worked as at the time of data collection. Findings are presented in Table 4.1;

Table 4.1: Duty Station of Respondents

Districts	Frequency	Percentage (%)
Kakamega Central	8	25.8
Butere	7	22.62
Khwisero	5	16.1
Kakamega North	2	6.5
Mumias	2	6.5
Kakamega East	4	12.9
Kakamega South	3	9.7
TOTAL	31	100.0

The findings in Table 4.1 show that 25.8% of the respondents worked in Kakamega Central district (sub-county) while 22.62% were from Butere sub-county. It was also established that 16.1% of the respondents were working in Khwisero district while 12.9% were based in Kakamega East. It was further established based on the study findings that 9.7% of the respondents were working in Kakamega South, 6.5% working in Kakamega North and Mumias districts respectively. Findings show that the study sought opinion of respondents from wide spectrum of the study area and this would enable generalization of the findings to the entire county given level of representation.

- **Designation of Respondents :** The researcher sought to establish the positions in which the respondents worked. The aim was to establish the level of responsibility assigned to the officer which was to be used to assess the ability to understand internal controls and fraud .Findings on the questionnaire item seeking information on the designation of respondents are presented in Figure 4.1;

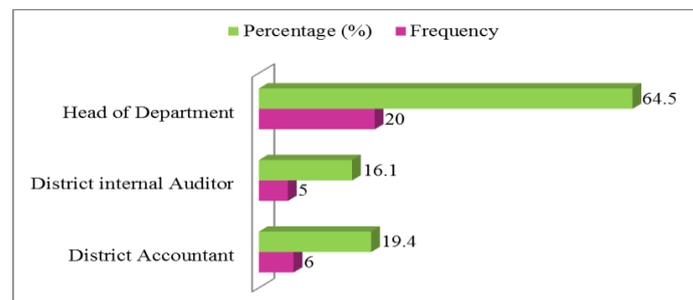


Figure 4.1: Designation of Respondents

The findings in Figure 4.1 reveal that 64.5% of the respondents were heads of departments drawn from the various ministries and departments represented in the different districts where data was collected. Such heads of departments are clients of their respective district treasuries and were well placed to respond on issues relative to the key study variables. It was further established based on the study variables that 19.4% of the respondents were District Accountants while 16.1% were District Internal Auditors. Both District Accountants and District Internal Auditors were interviewed because they were directly responsible for the financial transactions at their respective district treasuries.

• **Length of Service in the station** : Respondents from the categories of District Accountants and District Internal Auditors were asked to state how long they had served in their current duty stations. Respondents from the category of Heads of Departments were asked to state how long they had transacted with their respective district treasuries. The objective of this question was to assess the length of exposure and interaction with control challenges within the treasuries. Findings from the two sets of responses are presented in Figure 4.2;

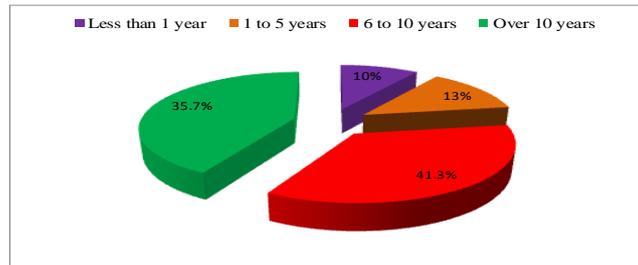


Figure 4.2: Length of Service of Respondents

Results in Figure 4.2 indicate that 41.3% of the respondents had worked in their present duty stations for a period between 6 and 10 years while 35.7% had worked in their current duty stations for over 10 years. Findings further revealed that 13% of the respondents had worked in their present stations for between 1 year and 5 years while 10% had worked for less than 1 year. This is an indication that most respondents had worked a longer period of time in their current duty stations and that they were well placed to respond accurately to the questions in relations to internal control and fraud prevention and detection in the treasuries. It was there appropriate to conclude that the information they gave were reliable.

• **Level of Education** : The researcher sought to determine the level of education of respondents from the category of treasury staff. The category had District Accountants and District Internal Auditors. Findings are presented in Table 4.2;

Table 4.2: Level of Education of Treasury Staff

Education Level	Frequency	Percentage (%)
Certificate	-	0.0
Diploma	3	27.27
Undergraduate Degree	6	54.55
Postgraduate	2	18.18
TOTAL	11	100.0

Results in Table 4.2 reveal that 54.55% of the respondents in the category of treasury staff had undergraduate degrees while 27.27% had diploma qualifications. It was also established that 18.18% of the respondents from this category had postgraduate qualifications. Findings show a well-educated and highly qualified work force at the district treasuries that would discharge their functions with utmost competence. This indicates the level of literacy and competence and ability to understand the concept of controls and fraud prevention and detection at their place of work. This further reinforce reliability of their responses.

To further establish the percentage response on the 4 point Likert scale for the items under internal control factors and how they influence fraud detection and prevention, the researcher computed percentage responses for each factor and presented findings in Table 4.3.

Findings of the study reveal that all the various components as selected by this study to operationalize internal control systems had influence on fraud detection and prevention in district treasuries with varying magnitudes.

Table 4.3: Descriptive Scores of the Effect of Internal Control Factors on Fraud Detection and Prevention

Influence Of Specific Internal Control Factors On Fraud Detection And Prevention	Strongly Agree	Agree	Disagree	Strongly Disagree
Information and Communication	37.9%	39.1%	12.3%	10.7%
Risk management	39.7%	38.5%	16.5%	5.3%
Monitoring	42.1%	43.3%	7.3%	7.3%
Control Environment	39.7%	45.1%	13.7%	1.5%
Control Activities	40.4%	42.3%	10.9%	6.4%

Findings in Table 4.6 reveal that majority of respondents agree that internal control factors have a significant bearing on fraud detection and prevention in district treasuries in Kakamega County.

- **Inferential results :** The study sought to determine whether internal control systems within district treasuries had effect on fraud detection and prevention in Kakamega County. This was tested using Pearson Product Moment Correlation Coefficient at 95% confidence level and findings presented in Table 4.4;

Table 4.4: Relationship between Internal Control Systems on Fraud Detection and Prevention

		Fraud Detection and prevention
Internal Control Systems	Pearson Correlation	.596**
	Sig. (2-tailed)	.000
	N	31

**Correlation is significant at 0.05 levels (2- tailed)

*Correlation significant at 0.01 levels (2 - tailed)

The findings in Table 4.4 reveal a statistically significant positive relationship between internal control systems and fraud detection and prevention ($r=0.596$; $P<0.05$). This means that an improvement in internal control strategies results in improved fraud detection and prevention in district (sub-county treasuries) in Kakamega County. The first 6 items in the questionnaire under control activities sought to determine the understanding of respondents regarding how internal control influences fraud detection and prevention. A descriptive summary of the responses relation to the first 6 items under control activities is presented in Table 4.5.

Table 4.5: Descriptive Analysis for Control Activities Based on Responses

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
There is strict compliance with the existing government regulation, rules and procedures by treasury staffs and AIE holders	38.2%	26.8%	24.3%	10.7%
There is a well-designed and properly understood organisation line of authority and responsibility at the district treasury	39.1%	30.7%	22.5%	8.7%
Authorization, duty segregation, reconciliation are the most important tools in safe guiding public funds at the D. Treasury	32.3%	33.3%	19.9%	14.5%
The current Treasury operations are benchmarked against the internal accounting standards and best practices	29%	36.1%	15.7%	19.2%
External factors have strong impact on the efficient operations and service delivery at the district treasury leading to override of controls by management?	31.4%	32.3%	17.9%	18.4%
With proper rules and regulation ,no public fund will be lost	35.2%	30.8%	11.7%	22.3%
You are aware of any important financial reconciliation that has not been performed that should be performed?	16.7%	15.1%	28.9%	39.3%
Petty cash is reconcile and replenished monthly as require by the regulation	29.9%	36.7%	15.9%	17.9%
Do you agree with one of the watch dog institutions report that 40 % of funds allocated for government programs are lost due to weak internal controls	27.8%	34.4%	17.7%	20.1%

The findings in Table 4.5 show that 34.2% of the respondents strongly agreed with the first 6 items of the questionnaire which sought to affirm that internal control measures assist in fraud detection and prevention. It was also established that 31.67% of the respondents agreed with the first 6 items while 18.67% disagreed. Study findings further reveal that 5.63% of the respondents strongly disagreed with positive items regarding the relationship between control activities and fraud detection and prevention. Findings of this study were consistent

to (Ardts, Jansen & Van der Velde, 2001) who found that the ethical environment within the firm is likely to influence employee behaviours in two ways. First, through organizational socialization processes, employees will learn to behave according to the level of ethical climate, and the higher the ethical values, the greater the ethical outcomes. Since findings of the study predict a significantly positive association between internal control strategies and fraud prevention and detection at 95% confidence level, According to result of this test hypothesis is hereby rejected and its alternative which states that there is a statistically significant effect of internal control systems on fraud detection and prevention adopted.

Table 4.6: Multinomial Logistic Regression Analysis for Internal Control Factors Against Fraud Detection Prevention

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1 (constant)	1.115	.081	-	.033	.001
Information and Communication	.192	.071	.179	.100	.033
Risk management	1.025	.064	1.048	.039	.016
Monitoring	1.007	.059	1.001	.072	.043
Environment	.305	.055	.050	.128	.045
Control Activities	1.201	.054	.023	1.225	.024

A regression analysis was conducted using control systems variables as a predictor of the direction and influence of control systems on fraud detection and prevention in district treasuries in Kakamega County. The regression equation becomes

$$Y = 1.115 + .192X_1 + 1.025X_2 + 1.007X_3 + .305X_4 + 1.201X_5$$

Where X_1 X_2 X_3 X_4 and X_5 represents Information and Communication, Risk management, Monitoring, Environment and Control Activities as components of internal control respectively and Y represent Indicators of fraud prevention & detection.

Findings of this study were compared with empirical studies relating to internal control aspects involved in fraud detection and prevention. Kenneth Lauden et.al. (2009),found that pertinent information must be identified, captured and communicated in a form and timeframe that enables people to carry out their responsibilities. Huge amounts of money are spent on information systems and technology hardware, software, telecommunication and management consulting services due to importance attached to information and communication. Management use of technology and the impact of technology make it a very interesting area in frauds control.

Organizations are moving towards a digital firm where nearly all the significant business relationships with customers, employees, suppliers are digitally enabled and mediated Kenneth (2009). Digital firms respond to the organization environment of achieving operational excellence faster than the traditional methods. Information systems produce reports, containing operational, financial and compliance-related information that make it possible to run and control the business.

V. CONCLUSIONS

In line with the findings of the study, the study concludes that there is a significant positive relationship between internal control systems and fraud detection and prevention in sub-county treasuries in Kakamega County.

VI. RECOMMENDATIONS

The following recommendations are made:

Fraud detection is based on the premise that fraud is not a random occurrence but occurs where the conditions are right for it to occur. Fraud detection attacks the root causes and enablers of fraud. Improving organizational procedures to reduce or eliminate the causal factors of fraud is the single best defence against fraud. Therefore there is need for treasury staffs to maintain effective, efficient and transparent governance and

financial systems to minimize or eliminate fraud. This will address the weakness within the organisation structure that normally exposes resources to risk of loss due to fraud. It is recommended that Management should always ensure that, risks are effectively assessed and managed, laws and regulations strictly complied with, and that, there is effective communication and monitoring within the district treasuries. This will ensure effectiveness and efficiency of operations, reliability of financial reporting, and compliance with laws and regulations and finally prudent use of public funds

The five identified and studied components of effective internal controls: control environment; risk assessment; control activities; information and communications and monitoring, need to be applied in a synergistic linkage to form an integrated system that reacts dynamically to changing conditions. The internal control system should be intertwined with the operating activities of the various districts (sub-counties) to detect and prevent fraud.

Suggestions for Further Research

- [1] Further research can be undertaken on the impact of internal control systems on fraud detection and prevention in the private sectors especially manufacturing organizations and results compared with those of this study. This will broaden our understanding of the extent to which internal control systems impact on detection and prevention of fraud depending on the governance structures .
- [2] Further still, the relationship between organizational culture (way of doing things) and fraud detection and prevention in government departments to be interrogated and explored. This is because culture is inbuilt in all systems in terms of value, attitudes and norms shared across members of the organization. Therefore for fraud detection and prevention to succeed, organizational culture issues need to be looked into as predictors of success of such programs. This argument is supported by Victor and Cullen (1988).

REFERENCE

- [1] Abbott, L.J., Parker, S. and Park, Y. (2000). The Effects of Audit Committee Activity and Independence on Corporate Fraud. *Managerial Finance* 26 (11): 55-67.
- [2] Albrecht, W.S. (1996). *Employee Fraud*. Internal Auditor, October, p: 26.
- [3] Albrecht W. S. (2000). *Fraud Detection and prevention*; American Institute of Certified Public Accountants. (New York 1211 Avenue of the Americas, New York 10036-8775).
- [4] Ardts, J., Jansen, P. and Van Der Velde, M. (2001). The breaking in of new employees: Effectiveness of socialization tactics and personnel instruments. *Journal of Management Development*, 20(2), pp. 159-178.
- [5] American Institute of Certified Public Accountants (AICPA) (2003). *Consideration of Fraud in Financial Statement Audit*. Statement on Auditing Standards No.82, New York.
- [6] Association of Certified Fraud Examiners (2007). New York, UAS
- [7] Beasley, M. S. (1996). An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review* 71 (4): 443- 465.
- [8] Cressey, C. and Martin, P. (2002). *The Handbook of Fraud Deterrence*.
- [9] COSO (2011). *Internal Control—Integrated Framework: Volume I*, American Institute of Certified Public Accountants, Inc. New York, NY 10036-8775.
- [10] COSO (2012). *Principles-Based, and More Guidance*, American Institute of Certified Public Accountants, Inc. New York, NY 10036-8775.
- [11] Dechow, P. M., Sloan, R. G. and Sweeney, A. P. (1996). Causes and Consequences of Earnings Manipulations: An Analysis of Firms Subject to Enforcement Actions by the Sec. *Contemporary Accounting Research* 13 (1): 1-36.
- [12] Dunn, P. (2004). *The Impact of Insider Power on Fraudulent Financial Reporting*. *Journal of Management* 30 (3): 397-412.
- [13] Government Financial Regulations and Procedures (2002). Government Printer, Nairobi, Kenya.
- [14] Greenberg. "Who Stole the Money, and When? Individual and Situational Determinants of Employee Theft," *Organizational Behaviour and Human Decision Processes*
- [15] Hollinger, R.C. and Clark, J. P. (1983). Deterrence in the Workplace: Perceived Certainty, Perceived Severity, and Employee Theft, *Social Force*.
- [16] Holmes, S.A., Langford, M., Welch, O. J., and Welch, S. T. (2002). "Associations between Internal Controls and Organizational Citizenship Behaviour," *Journal of Managerial Issues*, (14:1), Spring.
- [17] Holtfreter, K. (2004). Fraud in US Organizations: An Examination of Control Mechanisms. *Journal of Financial Crime*
- [18] Institute of Internal Auditors (1999). *Definition of Internal Auditing*. Altamonte Springs, FL: II: Canada.
- [19] Institute of Internal Auditors (IIA), also available at <http://www.theiia.org>
- [20] Kenneth C. L. (2009). *Management Information Systems: 10th Edition* Pearson, New Jersey
- [21] Kizirian, T. & Leese, W. R. (2004). *Security controls and management tone*. Internal Auditing, Vol. 19, No. 2, pp. 42-46.
- [22] Kerlinger, P., J. Gehring, W., Erickson, R., Curry, A. J and Guarnaccia, J. (2010). Night Migrant Fatalities and Obstruction Lighting at Wind Turbines in North America: A Review. *Wilson Journal of Ornithology* 122:744–754.
- [23] Mars Group (2008). Report on Corruption in Kenya
- [24] Mugenda, O. M. and Mugenda, A. G. (2003): *Research Methods: Qualitative and Quantitative Techniques*. Africa Centre for Technology Studies, Nairobi, Kenya
- [25] National Tax Payers Association Report (2012). *National Taxpayers Association Launch of NTA Citizen's audit CDF and LATF funds* also available at <http://www.nta.or.ke/>
- [26] O'Leary, C., Iselin, E., and Sharma, D. "The Relative Effects of Elements of Internal Control on Auditor's Evaluations of Internal Control (2006). *Pacific Accounting Review*
- [27] Rae, K. and Subramaniam, N. (2008). Quality of Internal Control Procedures: Antecedents and Moderating Effect on Organizational Justice and Employee Fraud," *Managerial Auditing Journal*

- [28] Robinson, S. L. and Bennett, R. J. (1995). A Typology of Deviant Workplace Behaviours: A Multidimensional Scaling Study, *Academy of Management Journal*.
- [29] Sharma, V. D. (2004). Board of Director Characteristics, Institutional Ownership, and Fraud: Evidence from Australia. *Auditing: A Journal of Practice & Theory*
- [30] Valentine, Godkin et.al (2002). Ethical Context, Organisational Commitment and Person – Organisational Fit. *Journal of Business Ethics*: 41(4):349 – 360.
- [31] Weber, K. L. B. and Pentico, D.W. (2003). *Why Do Employees Steal?* Business and Society.