Forensic Accounting and Fraud Control in Public Institutions in Kenya: A Systematic Review of Literature

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Abstract:- The aim of this study was to examinethe effect of forensic accounting and fraud controlling public institutions in Kenya.The research utilized a systematic review methodology, as guided by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Multiple databases search was conducted to identify relevant studies related. Only primary studies published between 2018 and 2023 were included, based on the predetermined selection criteria. The screening and selection process were performed in accordance with these criteria. This study appropriately referenced and acknowledged the secondary data sources and materials used. Studies reviewed revealed a strong and positive correlation between forensic accounting and fraud control. Public institutions have implemented various measures, including duties segregation, compliance policies and management controls, to control fraud. Components of forensic accounting, including segregation of duties, internal controls, physical controls, compliance, and dispute resolution, were found to be significantly linked to fraud control. However, the systematic review of literature highlighted that many public institutions in Kenya lack effective fraud reporting policies and fraud control plans, which presents a significant obstacle to fraud control efforts. While public institutions in Kenya do have an internal control function, it was observed to be less robust than desired in preventing fraud. The study recommends that public institutions in Kenya prioritize enhancing their adoption of forensic accounting practices to better prevent and control fraud. Moreover, the government should create a supportive environment for the growth of forensic accounting as a discipline, aligning with global trends in fraud control. Regulatory organizations like the Institute of Internal Auditors and the Institute of Certified Public Accountants should incorporate forensic accounting into their curriculum and training, making it a crucial requirement for full membership accreditation in their respective professions. For future research, it is suggested to conduct primary studies among public institutions in Kenya. By doing so, the findings would be more robust, enabling a broader investigation into the impact of forensic accounting on fraud control in these institutions. To gain a deeper understanding of the topic, future studies could also employ mixed methods to enhance findings.This study is important to policy makers in public institutions, who would be equipped with the necessary knowledge to institute policies to prevent fraud. Finance and accounting experts will benefit from this study's findings as they would better comprehend the how forensic accounting affects fraud prevention. Consequently, the experts would give informed professional counsel to their institutions and other institutions.

Keywords:- *Forensic Accounting, Fraud Control, Public Institutions.*

I. INTRODUCTION

➢ *Background of the study*

Due to the increasing globalization and the diversification of economic activities, there has been a rise in economic and financial crimes, which has become a global concern. As a result, the demand for forensic auditing and accounting has grown rapidly (Seda & Tilt, 2023). The challenging global environment has compelled forensic auditors and accountants to establish controls and procedures to detect, prevent, and respond promptly to crimes, with fraud being a prominent concern. Despite the implementation of various measures to prevent and detect fraud in organizations, employees and external fraudsters continue to engage in fraudulent activities (Hassan, 2018).

Preventing fraud is more cost-effective than detecting it later, as recovering losses after a fraud has occurred is difficult. Effective internal controls significantly mitigate opportunities for employee fraud within an organisation (Nwanyanwu, 2018), leading to numerous benefits. Rationalization plays a role in fraud, where individuals may justify committing fraud due to specific circumstances, such as urgent medical bills or a life-threatening ransom situation (Godana, Mwangi & Mwaeke, 2022). In the same breadth, staff in charge of finances may be tempted to utilise funds at their disposal for their personal use. There is therefore an inherent risk in an organisation that staff may engage in fraudulent activities by virtue of their employment.

Forensic accounting involves the use of investigative skills and specialized knowledge by forensic accountants in collecting, analyzing, and evaluating evidence, which they communicate in legal forums like boardrooms or courtrooms. This service encompasses litigation support, dispute resolution, bankruptcy proceedings, special investigations, and fraud examination (Wicaksono & Yuhertiana, 2020). Forensic accountants employ various specialized skills, including auditing, specialized accounting, tax expertise, economics, and others, depending on the assignment's nature.

The study is guided by the fraud triangle theory and the internal controls theory. The fraud triangle theory, proposed by Albrecht, Turnbull, Zhang, and Skousen (2010), identifies perceived pressure, perceived opportunity and rationalization as the three main elements of fraud. These elements are intertwined in every fraudulent act, irrespective of whether fraud is committed for or against an organisation (Albrecht et al., 2009). A better understanding of how these elements contribute to fraud can help organizations implement appropriate measures to prevent it (Albrecht et al., 2010).

The internal control theory, propounded by Harvey and Brown (1998) identifies the control environment, control procedures and the accounting system as the critical elements in internal control of any organisation. An effective internal control system is essential for an organization's safety, success in achieving goals and long-term objectives, and maintaining reliable managerial and financial reporting. It ensures compliance with laws, regulations, policies, and internal rules, reducing the risks that are inherent to an organisation, in the event fraud incidences occur (Puspitasari & Siswantoro, 2019). The internal control theory is relevant to the study as it outlines the policies, rules and internal control procedures that public institutions should adopt.

- *Research Problem*

In Kenya, fraud is a significant and costly problem deeply embedded in various sectors (Kariuki & Sebayiga, 2023). To effectively tackle this issue, it is essential to actively involve forensic accountants at all stages of risk assessment and audit plan development, rather than merely consulting them (Kingsley & Omoghene, 2018). This proactive approach will enable early detection of fraudulent activities, leading to timely mitigation and reducing the extent of losses. Without continuous involvement of the public and improvements in forensic accounting practices, detecting fraud cases will remain challenging, resulting in successful fraudulent activities and failing to meet the expectations of the public (Kiprono & Ng'ang'a, 2018). To combat these crimes effectively, stringent measures should be implemented, and launching anti-fraud initiatives becomes crucial. Forensic accounting plays a vital role as a tool in this endeavor, helping to uncover and address fraudulent activities more effectively.

- *Aim of the Study*

The aim of this study is to examine the effect of forensic accounting and fraud control in public institutions in Kenya.

II. METHODOLOGY

Details on sources of data and the data collection methods are explained. The data collected for this secondary research is derived from existing information. Secondary data is the information that has been collected and analyzed (McCombes, 2019).

- *Study Design*

To ensure reliable and comprehensive findings, this study employs a systematic and qualitative literature review approach, which involves analyzing and comparing relevant authors and their findings. PRISMA guidelines were strictly adhered to. Systematic reviews are conducted to collect information that is relevant to the study. Systematic reviews follow a predefined and rigorous approach, incorporating specific criteria to include or exclude studies. This ensures comprehensive coverage of all relevant research pertaining to the topic under investigation. By adhering to this process, systematic reviews aim to maintain a high level of objectivity and minimize bias in their findings. This approach enhances objectivity, reproducibility and comprehensiveness of the review.

- *Search Strategy*

A research protocol was developed to refine the research questions and establish inclusion criteria for identifying relevant existing studies. Online databases such as the Cochrane Library, EBSCOhost, Mendeley and Google Scholar were searched for articles published between 2018 and 2023. The screening and selection of studies were carried out based on the predefined selection criteria for data extraction.

The search employed various combinations of key terms, including "forensic accounting'' and "fraud control" and "public institutions". Given the varied terminology associated with fraud control, multiple keyword combinations were utilized in the search process. Data analysis was performed using Microsoft Excel, which included information such as author(s) name(s), publication year, study location, design, population, sample size and identified factors influencing fraud control.

- *Selection Criteria*

The study employed inclusion and exclusion criteria to enhance the credibility and reliability of the selected studies.

- *Inclusion Criteria*

The focus was the selection of studies that centered on the public sector setting. Both qualitative and quantitative studies were taken into consideration. The inclusion criteria encompassed effects of forensic accounting on fraud control, as well as original articles published in English. Specifically,

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the study focused on research conducted in Kenya. The articles included in this study were peer-reviewed and accessible freely.

- *Exclusion Criteria*

The review excluded studies that focused on fraud control in the private sector.

- *Ethical issues*

Ethical considerations in secondary research include concerns related to security and confidentiality when sharing and synthesizing data from secondary sources (Hoover & Cohen, 2021). In this study, proper acknowledgment was given to the secondary data sources and materials used. The study ensured that the selected secondary sources were credible, reliable and valid. To maintain objectivity, originality and impartiality, the research process involved systematic data searches and diligent acknowledgement of information and data sources.

III. FINDINGS AND DISCUSSION

This chapter presents the study's findings, which were derived from a comprehensive search across multiple databases, including the Cochrane Library, Mendeley, EBSCOhost and Google Scholar. A total of eight studies were identified through these searches. The content of journals obtained from these databases was carefully analyzed to determine their relevance to forensic accounting and fraud controlling public institutions in Kenya.

Karuti, Mwaniki and King'oriah (2019) carried out research to find out how the adoption of forensic accounting practices would affect county governments' ability to control fraud. Their study included 351 staff members and focused on seven counties in the Mount Kenya region. To determine the level of statistical significance between realistic and predictable values, the study employed analysis of variance. The strength of the correlation between the variables was assessed using the Pearson coefficient of correlation, and the model coefficients were estimated using regression analysis. The findings showed a link between fraud control and forensic accounting. These findings are consistent with those of Godana, Mwangi, and Mwaeke (2022), who also found a positive and significant impact of forensic accounting on fraud control.

In a different investigation, Kalume and Kamau (2021) evaluated the value of proactive forensic audit as a strategy for identifying irregularities in financial information at public institutions. The fraud diamond theory, fraud triangle theory and fraud scale theory served as the foundation for their investigation. The study employed an ex-post facto research design, combining evidence from secondary data. Findings revealed that proactive forensic auditing is an effective strategy for swiftly identify and avert fraud in Kenya's public institutions. Furthermore, it helps strengthen the credibility of financial reporting and reduces the likelihood of lawbreaking behavior and income smoothing. To reduce the danger of illegal actions, the researchers advised institutions to set up a forensic audit team, conduct appropriate forensic investigation of financial accounts, and use litigation services. The study's focus on fraud identification presented a conceptual gap.

Masengeli, Kiragu and Kamau (2019) examined how financial fraud and corruption affect the risk of fraud among state firms in Mombasa County. They used a descriptive research approach, grounded in the fraud triangle theory, to gather information from 64 staff of state firms in Mombasa County via a self-administered questionnaire. The study's data analysis revealed that financial misrepresentation had a favorable and significant impact on the risk of fraud among state firms. The researchers recommended that state corporations should closely monitor financial and accounting transactions and books entries, emphasize proper disclosure of financial statement information and avoid overstating expenditures through accountability reports. They also suggested adopting policies like forensic accounting and auditing to handle financial statements. However, a conceptual gap arose as the study's dependent variable was fraud risk.

Research was done by Wanyama, Okello and Otinga (2019) to determine how financial control affected the profitability of sugar production companies in Western Kenya. Ninety-four respondents from 6 sugar firms were selected and issued with structured questionnaires for data collection. Descriptive and inferential statistics were employed with the help of SPSS version 21 for data analysis. The findings showed that financial controls have a considerable impact on the firms' profitability. Profitability was found to be positively and significantly impacted by budgetary control, audit control and accounting system control. Consequently, management of sugar production companies ought to ensure sure that their asset portfolio is properly balanced to meet the sector's financial needs. Additionally, periodic forensic audits should be conducted to detect and prevent financial malpractices. However, the study's focus on profitability presented both contextual and conceptual gaps, as public institutions like sugar firms primarily exist to provide services rather than generate profit, and their funding comes mainly from the exchequer.

Kiprono and Ng'ang'a (2018) investigated how the Kenya Ports Authority (KPA) performed in relation to internal controls, personnel management, ICT use, and fraud reporting systems. The fraud diamond theory, fraud management lifecycle theory and the fraud triangle theory served as the study's foundations. Two hundred and forty-two KPA personnel were the target population for the descriptive investigation. A total of 73 respondents were chosen for the sample size using stratified random sampling. A semi-structured questionnaire was used to collect main data, while data from financial records and financial statements was used to obtain secondary data. Descriptive and inferential statistics were used in the data analysis, and the results showed that use of ICT, fraud reporting systems, staff management and internal controls favorably affected fraud control. The study recommended for strengthening of the organization's internal controls and institute reward schemes for fraud reporting. Investment in ICT and staff management should also be prioritized to combat fraud effectively. Furthermore, KPA should increase investment in fraud reporting systems. These findings align with those of Karuti, Mwaniki, and King'oriah (2019), who also found a positive and significant relationship between forensic accounting and fraud control.

Bulimu and Kalui (2021) looked on how internal audit procedures helped universities in Kenya avoid substantial financial reporting errors. The study used a descriptive research approach and was informed by the fraud diamond theory, fraud triangle theory and the agency theory agency theory. Public universities in Kenya were the target population, and a sample of 36 universities was chosen using simple random selection, with the head of the internal audit department serving as the respondents. Closed-ended questionnaires were used to collect the data, which was then analyzed quantitatively. The findings showed that Kenyan universities greatly benefited from the prevention of material misstatements in financial reporting as a result of internal audit methods. The study recommended that the universities should implement internal audit procedures to control fraud. These findings were consistent with those of Kalume and Kamau (2021), who also found a positive link between forensic accounting and fraud detection and prevention.

Hassan (2018) ascertained the connection between audit services and fraud prevention in Garissa. Forty-two respondents were the targeted population, which focused on six sub-counties in Garissa. Utilizing both primary and secondary data, questionnaires and county audit reports served as the main data sources. SPSS was utilized to code and analyze the collected data, which was presented in figures and tables for easy comprehension. The findings revealed that audit services had the strongest positive influence on fraud control. However, internal controls showed a negative correlation with fraud control. As recommendations, the study suggested that the county government should establish an audit committee, automate its services to meet financial targets, and ensure the efficient and effective functioning of the internal control system to prevent fraudulent activities. These findings align with those of Bulimu and Kalui (2021), whose study also indicated a positive correlation between internal controls and fraud control.

Mwangi (2019) assessed the effects of large taxpayers' tax fraud mitigation methods on Kenya Revenue Authority revenue collection. The theory of internal controls, the fraud triangle theory and the prospect theory served as the foundation for the study. The study adopted a descriptive research approach. From a population of 1540 officers, purposive sampling was employed to choose a proportional sample size of 90 employees. Questionnaires were used in the study's main data collecting and quantitative data analysis. The results showed that internal control forensic audit, system surveillance, personnel training, and technology adoption all had a positive and significant impact on minimizing tax fraud. As recommendations, the study proposed that Kenya Revenue Authority management should conduct regular awareness seminars on tax evasion and fraud, provide adequate training to staff on the operation of I-tax systems, and implement data analysis forensics to identify, prevent and control fraud. There is convergence of these findings with those ofWanyama, Okello and Otinga (2019) and Kiprono and Ng'ang'a (2018) that technology adoption and staff training on forensic accounting positively and significantly prevents fraud in public institutions.

IV. CONCLUSIONS AND RECOMMENDATIONS

➢ *Conclusions*

The importance of conducting this study cannot be underestimated, as fraud continues to be a significant problem in public institutions in Kenya. The increasing prevalence of fraud in the public sector and the perceived desperation among citizens has drawn the attention of both the public and scholars. The research heavily relied on reviewing existing quantitative studies conducted by other scholars. This study sought to examine the effect of forensic accounting on fraud control in public institutions in Kenya.

Based on the findings, the study concludes that public institutions in Kenya do have an internal control function, but it may not be as robust as required to effectively prevent fraud. It was also observed that compliance policies, management overrides of controls, and segregation of duties contribute to fraud control efforts in these institutions. Additionally, various components of forensic accounting, such as segregation of duties, internal controls, physical controls, compliance, and dispute resolution, were found to have a positive and significant association with fraud control and detection.

The systematic review of literature highlighted a concerning issue — many public institutions lack effective policies on fraud reporting and fraud control plans. This lack of adequate policies poses a significant obstacle to effective fraud control efforts. The study emphasizes the need for strengthening forensic accounting practices and implementing better fraud control measures in public institutions to address the pervasive issue of fraud.

➢ *Recommendations*

The study highlights the importance of enhancing forensic accounting practices in public institutions as a crucial step in controlling fraud. To effectively combat fraud, the government should create a supportive environment for the development and implementation of forensic accounting. Currently, there are limited policies in public institutions regarding the application of forensic accounting, which underscores the need for more comprehensive measures to address fraud. The Institute of Internal Auditors and the Institute of Certified Public Accountants should play an active role to promote adoption of forensic accounting in public institutions. They can achieve this by incorporating forensic accounting into their educational curriculum and training programs. Making forensic accounting a key requirement for full membership accreditation in their respective professions would emphasize its significance and encourage professionals to acquire the necessary expertise. By integrating forensic accounting practices into public institutions and promoting its recognition within the accounting and auditing professions, there is a better chance of staying aligned with global trends in fraud control. Public institutions should regularly train staff and relevant stakeholders on prudent financial management procedures, adopt technology in internal controls and harness the benefits of fraud control for good corporate governance. These efforts can create a stronger control against fraud and lead to more robust and effective measures for detecting and preventing fraudulent activities within the public sector.

This study is a systematic literature review. It is recommended for future research to conduct primary studies among public institutions in Kenya. By doing so, the study's findings would be strengthened, allowing for a broader investigation into the effect of forensic accounting and fraud control in public institutions. Utilizing a mixed methods methodology in future studies could further enhance the understanding of this phenomenon. This is because the studies would effectively triangulate data from various classes of respondents, who would enrich the studies and enhance credibility of findings, conclusions and recommendations.

- *Implications of the study*

This study will be important to public institutions as they will better understand the effect of forensic accounting and fraud prevention. Policy makers in the institutions would be equipped with the necessary knowledge to institute policies to prevent fraud. The policy recommendations of the study will form a basis upon which the public institutions will develop and implement policy to prevent fraud. This study’s findings will be beneficial to finance and accounting experts as they would better comprehend the how forensic accounting affects fraud prevention. Consequently, the experts would give informed professional counsel to their institutions and other institutions. This study finding would be important to scholars as it would add to existing theory on forensic accounting and fraud prevention. Students in the fields of finance, accounting and related disciplines would better understand the effect of forensic accounting on fraud prevention. Recommendations for further studies would forma basis upon which future scholars would conduct their studies.

- *Limitations of the Study*

This study's scope is limited by the range of existing research that was reviewed. As a result, the findings, conclusions, and recommendations of this study are primarily derived from the studies that were examined. This study is limited due to potential bias in publishing certain identified and reviewed studies, potentially excluding others that might have different perspectives or outcomes. This suggests that while the study provides valuable insights based on the available research, its results might not capture the topic under investigation comprehensively, due to the inherent limitations in the selection of studies.

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