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| RESEARCH ARTICLE

Internal, External, and Forensic Audits as Determinants of Fraud Prevention in Ghana's Metropolitan, Municipal, and District Assemblies

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| ABSTRACT

Fraud and corruption are major global challenges that have a profound effect on individuals, countries, and economies. They incur substantial costs and hinder societal advancement. In Ghana, fraud and corruption present serious obstacles for the Metropolitan, Municipal, and District Assemblies (MMDAs), compromising governance and development efforts. This research assesses how well internal, external, and forensic audits function in curbing fraudulent financial activities within Ghana's MMDAs. A quantitative cross-sectional survey design was utilised to gather data from 343 finance directors, accountants, and internal auditors across 261 MMDAs. Descriptive statistics and multiple regression analysis were used to evaluate the data. The results indicate that internal audits are viewed as effective for identifying early indicators of financial mismanagement (mean = 4.87) and for preventing fraud (mean = 4.60), although issues like lack of independence (mean = 4.23) and insufficient resources (mean = 4.23) exist. External audits are conducted regularly (mean = 5.44) but face challenges with the weak enforcement of their recommendations (mean = 2.56). Forensic audits, despite their limited usage (mean = 1.68 regarding the hiring of forensic auditors), show the most substantial association with fraud reduction ($\beta = 0.228$, $p < 0.001$). Together, audit activities account for 12.2% ($R^2 = 0.122$) of the variance in fraudulent practices, revealing their significant yet constrained effectiveness. The study concludes that although audits are vital for preventing fraud, their success is undermined by systemic shortcomings. It suggests enhancing forensic audit capabilities, ensuring the enforcement of external audit recommendations, and preserving the independence of internal audits to improve fraud prevention in Ghana's local governments. These findings add value to both academic discussions and practical policy reforms in the management of public sector finances.

| KEYWORDS

Fraud prevention, Internal audit, External audit, Forensic audit, MMDAs of Ghana, Financial misconduct, Fraudulent practices

| ARTICLE INFORMATION

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1. Introduction

Fraud and corruption are significant global issues, severely impacting individuals, nations, and economies. They result in enormous costs and undermine societal progress. Factors contributing to fraud include poverty, the low social status of public officials, and a lack of transparency (Kohler & Dimancesco, 2020). Globally, fraud ranges from petty to grand corruption, affecting all jurisdictions. The United Nations highlights corruption as a major barrier to human rights and societal development. The Association of Certified Fraud Examiners reported 2,504 corruption cases across 125 countries, leading to losses of $3.6 billion in 2020 (ACFE, 2020). In Indonesia alone, corruption caused state losses of Rp 56.7 trillion that same year (Guritno, 2021). Globally, $2.6 trillion is stolen annually, representing over 5% of global GDP (Kohler & Dimancesco, 2020).

Corruption hinders development, particularly in developing nations, leading to widespread impoverishment and a decline in quality of life (Enste & Heldman, 2017). For example, Africa is notably corrupt, with South Sudan and Somalia at the top (Mlambo et al., 2023). Recent scandals in Malawi and Zimbabwe highlight the issue of bribery among high-ranking officials (Mhaka, 2022). In West Africa, Nigeria stands out as a fraud hub, with significant annual losses reported by banks and backed by the Economic and Financial Crimes Commission (2018). Addressing fraud has become a crucial policy issue, emphasising the importance of strong, independent Supreme Audit Institutions in enhancing accountability (Muzurura & Mutambara, 2022).

Stakeholders in public and private sectors have implemented mechanisms to prevent and detect fraud, yet it continues to rise globally. In Ghana, the negative impact of fraud is significant, prompting both the government and corporations to develop various strategies to combat it. The Ghana Audit Service, established under Article 187 of the 1992 Constitution, conducts audits across public offices, but annual reports indicate a troubling surge in fraud. From 2016 to 2020, Ghana lost substantial sums to corruption, including over GH¢718m (US$184 million) and GH¢12bn (US$2.3 billion). Despite the establishment of the Internal Audit Agency in 2003 and recoveries totalling over GH¢2 billion (US$368 million) from 2017 to 2022, fraud incidents persist, including misappropriations by the Free Senior High School Secretariat and unaccounted consular fees. Literature suggests that audits can effectively reduce fraud, yet the ongoing challenges raise questions about their efficacy. Corruption, often synonymous with bribery, impacts all sectors, highlighting the need for continued vigilance against this pervasive issue.

Fraud has a significant impact on local governments, manifesting in various forms across operations and often affecting multiple local authorities (CIPFA, 2018). In 2017/18, local authorities detected or prevented £302m in fraud, £34m less than the previous year, despite an increase in detected cases from 75,000 to 80,000. Severe organised crime cases doubled to 56, and business rates fraud rose to £10.4m from £4.3m (CIPFA, 2018). Blue Badge fraud also increased by £3m to an estimated £7.3m in the same period (Sahdan et al., 2021).

Fraud leads to money laundering linked to various illegal activities, with the International Monetary Fund estimating that 20 to 50 percent of the global GDP is derived from criminal proceeds (Sahdan et al., 2021). The misuse of public funds is rising worldwide, with a notable public outcry regarding spending on COVID-19 (Blanco-Varela et al., 2022. Fraudulent practices like asset misappropriation, procurement fraud, and corruption persist despite global audit and control measures (Tutu et al., 2020). Asset misappropriation involves the theft or misuse of an organisation's assets (Albrecht et al., 2019), often perpetrated by those entrusted with managing resources. Corruption, an enduring issue (Usman et al., 2022), has become an international epidemic, undermining regulation and democracy while contributing to poverty (Enste & Heldman, 2017; Feil, 2021). It includes bribery, conflicts of interest, extortion, and illegal gratuities, which can deter investment and distort government budgets for revenue generation (Tantawy & Moussa, 2023; Grossi & Pianezzi, 2018; Lino et al., 2021). Procurement fraud involves any deceitful activities related to a company's purchasing of goods and services or construction projects. This can occur when the tender process is bypassed or through practices like bid rigging (Adam & Kissi, 2021). In Ghana, procurement weaknesses at District Assemblies are attributed to factors like political interference, poor contract administration, and lack of e-procurement systems (Quashie, 2019).

Audit practices are essential for improving financial reporting quality and reducing fraud, offering stakeholders assurance while safeguarding assets. Various types of audits (internal, external, and forensic) aim to identify and prevent fraudulent activities, with their success largely dependent on cultural elements like transparency and leadership tone (Surya et al., 2023). Effective audits can help deter fraud and protect shareholder interests (Dezoort & Harrison, 2018; Guragai & Hutchison, 2019). According to the International Monetary Fund (2019), implementing strong auditing and cultural practices could potentially recover about $1 trillion in lost tax revenues, equivalent to 1.25 percent of the global GDP. However, Kohler & Bowra (2020) reveal that $2.6 trillion is stolen globally each year, with an additional $1 trillion in bribes.

In Ghana, annual audits have highlighted significant corruption, with losses exceeding GH¢718 million (US$184 million) from 2016 to 2020 (Allotey, 2021). Cases of misappropriation and unaccounted funds have been documented, raising concerns about the effectiveness of current audit practices. Several factors contribute to the perceived failure of audits in preventing fraud. Disagreements among auditors regarding immaterial fraud risk can lead to "scope creep," while auditors may face pressure or threats from clients, leading some to overlook misstatements. Additionally, the Information Systems Audit and Control Association (2019) noted that auditors often fail to adapt their testing methods, relying on sampling, which may miss fraudulent transactions, resulting in undetected fraud.

Existing literature on fraud prevention in public sector institutions has extensively examined the role of audits, yet critical gaps remain, particularly in the context of developing economies like Ghana. While prior studies (e.g., Adekoya et al., 2023; Conteh et al., 2024) confirm the positive impact of internal audits on fraud detection, few have explored the interplay between internal, external, and forensic audits within a single framework. Additionally, most research focuses on central government agencies or private sector entities, leaving a void in understanding fraud dynamics in decentralized local governments (MMDAs), where political interference and weak enforcement are prevalent (Owusu, 2018; Bawole & Hossain, 2020).

Moreover, while Agency Theory (Ross & Mitnick, 1970) and the Fraud Pentagon (Crowe, 2011) provide theoretical foundations, empirical studies often overlook context-specific barriers such as resource constraints, lack of auditor independence, and cultural tolerance for corruption in African public sectors. Notably, despite Ghana's robust legal framework (e.g., Public Financial

Management Act, 2016), no study has systematically assessed why fraud persists despite audit mechanisms pointing to a need for research that evaluates both technical audit effectiveness and institutional implementation challenges.
The Government of Ghana has implemented various regulations and institutions to combat fraud, including the Audit Service Act (2000), the Internal Audit Agency Act (2000), and the Public Financial Management Act (2016). However, recent audits indicate a significant rise in fraud within the public sector. Furthermore, there is limited empirical research on the comparative effectiveness of different types of audits (internal, external and forensic) in addressing various types of fraud (asset misappropriation, corruption and procurement fraud), particularly within the context of MMDAs in Ghana (Owusu, 2018; Bawole & Hossain, 2020). Additionally, the interplay between the various audit types and fraud prevention remains underexplored, with a limited understanding of how the individual and combined traits might enhance or diminish the effort of detecting and preventing specific types of fraud (Arena et al., 2020; Meyer & Rowan, 2023). Accordingly, this study aims to evaluate the individual and combined impact of internal, external, and forensic audits on fraud prevention in Ghana's MMDAs. The findings will enhance academic understanding and offer practical solutions to improve governance and audit processes to mitigate fraud and promote ethical conduct.

2. Literature Review

2.1 Theoretical Review

Type The theoretical framework underpinning this study comprises three theories to the research objectives. A theory is a generally accepted principle or explanation of nature or a cluster of statements or principles devised to unravel a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena (Creswell, 2017). The fundamental theories under consideration include Agency Theory, Fraud Triangle Theory, and the Fraud Pentagon. The external, internal and forensic audits are supported by Agency Theory (Ross & Barry, 1970), and the fraudulent financial practices by the fraud triangle (Cressey, 1950) and fraud pentagon (Crowe, 2011).
The agency theory, developed by Stephen Ross and Barry Mitnick in 1970, describes organizations that apply ideologies like audits to reduce information asymmetry. Research by Al-Faryan (2024) and Saida and Said (2024) highlights the theory's focus on the principal-agent relationship, emphasizing conflicts of interest from the separation of ownership and control, which can lead to corruption. Egbon (2024) notes that agency theory enhances public accountability and service delivery by addressing the dynamics between citizens (principals) and government (agents). This relationship necessitates regulation by an independent third party (auditor) to ensure transparent information flow. Citizens fund the government through taxes, expecting to maximise their welfare.
The Fraud Triangle, developed by Dr. Donald R. Cressey, explains why people embezzle funds and consists of three factors: a perceived non-shareable financial need, the opportunity to secretly resolve that need, and the ability to rationalise the fraud. All three elements must be present for trust violations to occur. An extension of this concept, the Fraud Pentagon, introduced by Crowe Howarth in 2011, adds two more factors: competence and arrogance (Crowe, 2011). The Pentagon's first indicator, pressure, arises from unmet goals or time constraints, pushing individuals or management to commit fraud to meet financial targets and gain incentives (Mat et al., 2019). The fraud pentagon theory builds on the fraud triangle theory and is linked to fraudulent financial practices in Ghana's public sector. It tries to explain the psychology behind fraudsters' actions and decisions. This knowledge helps auditors understand fraudsters' behavioural underpinnings.

2.2 Audit and the Prevention and Detection of Frauds

Conteh et al. (2024) investigated the role of internal audit, fraud prevention, and detection on public sector financial performance in Sierra Leone, specifically focusing on district councils. The study utilised quantitative methodology, and data were collected through a Google form questionnaire from internal auditors and finance officers. The study used SPSS 26 for analysis, and the results showed that internal audits have a positive impact on public sector fraud prevention and financial performance in Sierra Leone District Councils. The study conducted by Adekoya et al. (2023) considered the probable influence of Internal Audit Values on Fraud Detection in Nigeria Manufacturing Industries. A survey research design was adopted with a sample size of 392 and questions administered. Descriptive and inferential statistics were used for the analysis. The study revealed that internal audit values positively influenced fraud detection. It further concluded that internal audit values influenced and had a significant impact on fraud detection in Nigeria's Manufacturing Industries.
Menzo (2020) found that although the implementation of financial controls resulted in adherence and compliance, the effectiveness of government controls, internal audit, and control's function was weak, and had minimal impact on procurement. The study's findings indicated that despite strict government financial controls, internal controls, and internal audit functions, fraud tended to increase. Aida et al. (2018) argue that issues with public sector procurement, like fraud and noncompliance, are getting worse. Their study investigated the connection between public sector procurement difficulties and monitoring methods. It was discovered that the main element influencing procurement concerns is job rotation in high-risk regions. The COSO framework's control activity components are among the additional factors. The study further discovered that while internal auditor roles and procurement procedures correlate negatively with procurement difficulties, only procurement procedures significantly affect procurement issues.

Moreover, Asiedu and Deffor (2017) established that full implementation of Act 658 of the internal audit department and independence of the audit department significantly affect the effectiveness of the internal audit function, which negatively impacts corruption. Furthermore, Abdulai and Appiah (2023) found that the role of the internal auditor has a significant effect on fraud prevention, the auditor's professionalism significantly affects fraud prevention, and the test results simultaneously show that the two independent variables have a significant effect on fraud prevention. Taha (2023) found that internal auditors faced unfavourable conditions while performing their duties, including intimidation, threats, and administrative interference. Nisak and Rochayatun (2023) suggest that internal audits are crucial for detecting and preventing university fraud. They help implement effective controls, assess efficiency, and encourage continuous improvement. Internal audits also serve as supervisors, ensuring the effectiveness of university governance and controls. Harry et al. (2024) also disclose that internal audits play a crucial role in enhancing accountability, transparency, and effectiveness in procurement operations. Regular audits ensure compliance with laws and policies, while internal auditors provide valuable insights and suggestions for improving control frameworks, reducing risks, and enhancing cooperation between procurement departments.

Different from the supporting empirical works of literature, Usang and Salim (2016) opine that the Internal Audit unit did not fulfil its mandate and does not contribute significantly to fraud prevention and control in local government administration. Menso (2020) concludes that given stringent government financial controls, internal controls, and internal audit functions, procurement fraud rather increases. Ismail et al. (2018) demonstrated a negative correlation between the function of internal auditors and procurement procedures in the public sector. Comparing the role of internal auditors to procurement difficulties in the public sector, only procurement procedures have a significant relationship. It was therefore concluded that the function of internal auditors and the monitoring mechanisms used in this study about the procurement process impact procurement concerns in the public sector.

David (2019), in his study, concludes that internal audits in Local Government Authorities (LGAs) are ineffective and do not significantly contribute to procurement assignments that result in losses, as demonstrated by the Controller and Auditor General Reports. It also affirms the significance of the internal audit function in LGA procurement assignments. The study suggests that internal auditors should receive training on the Public Procurement Act (PPA), be exposed to various audit environments, and be engaged in teams of auditors with varying skill sets. Auditors should be familiar with all PPA-mandated procedures. Finally, granting the internal audit function adequate resources (funds), removing political pressure from the auditors, and granting access to information are all ways to strengthen the independence of auditors.

Masoud et al. (2021) also demonstrated a negative correlation between the function of internal auditors and procurement procedures in the public sector. Comparing the role of internal auditors to procurement difficulties in the public sector, only procurement procedures have a substantial relationship. Kamal and Elim (2021) posit that procurement management uses anti-hacker software, ownership data analytics, and continuous monitoring to detect and prevent fraudulent activity. Internal auditors enhance data analytics skills, support probity strategies, and offer procurement support. Karikari Appiah et al. (2023) indicate that the association between internal audit effectiveness and procurement performance is considerably mediated by the organisational resilience's cultural and strategic resilience aspects. These findings have consequences for reinforcing audit regulations to guarantee transparency in allocating public sector resources, with an emphasis on mitigating the perception of public sector corruption. The mixed results of the various studies make it imperative to conduct further studies to conclude the potency of internal audits in curbing fraud.

3. Methodology

The specific research design used in this study is a cross-sectional survey design. This design is particularly suited for examining the impact of internal, external, and forensic audits on fraud prevention in the Metropolitan, Municipal, and District Assemblies (MMDAs) of Ghana. A cross-sectional survey design captures data at a single point in time, providing a snapshot of the current state of audit practices, organisational culture, and fraudulent financial activities within the MMDAs. Non-probability sampling strategy was adopted for the study, comprising purposive sampling techniques. The sample size of 343 was drawn from a total population of 2394, comprising Finance Directors, Accountants, and Internal Auditors, using Yamane's (1967) sample size determination formula. The study utilised primary data collected from respondents by the researcher. A self-developed questionnaire was the primary tool for data collection in this study, allowing the researcher to efficiently reach more respondents and gather relevant information quickly. It featured close-ended questions to obtain quantifiable data for accurate correlation of research variables.

The questionnaire encompassed five sections (A, B, and C). Section A captured the socio-demographic characteristics of participants. The data captured included the respondent's institution, gender and designated office. Section B was designed to amass data concerning the independent variable, with Section C focused on data on the dependent variable. Section B consisted of thirty-one self-developed items that measure audit activities within the MMDAs. The scale for the audit activities included an internal audit with twelve statements, an external audit with seven statements, and a forensic audit with twelve statements. Section C consisted of twenty-four self-developed items that measured fraudulent financial practices within the MMDAs. The scale for the fraudulent financial practices included asset misappropriation with nine statements, corruption with seven statements and procurement fraud with eight statements.

The study employed the multiple regression model to ascertain the relationship between the dependent (fraud) and independent variables (internal, external and forensic audit). The Ordinary Least Squares (OLS) regression emerged as the most appropriate estimation technique for the current study. This is primarily because fraud prevention can be effectively operationalised as a continuous or interval-level dependent variable; OLS is well-suited for modelling the linear relationship between such a dependent variable and multiple independent variables, allowing researchers to simultaneously assess the individual impact of internal, external, and forensic audits. Its intuitive interpretability of coefficients, computational efficiency, and broad availability in statistical software make it a pragmatic choice, though careful diagnostic checks for assumptions like homoskedasticity and multicollinearity were essential to ensure the validity and reliability of the estimated coefficients. The Statistical Package for Social Sciences (SPSS v27) was used to analyze the data for this study.
The instrument underwent a pilot test with a 17 percent sample of respondents, who were not included in the actual data collection. The study evaluated the convergent and discriminant validity of the instrument. The Average Variance Extracted (AVE) for constructs related to audit activities (internal audit, external audit, forensic audit) and fraudulent activities (asset misappropriation, corruption and procurement fraud) all showed moderate convergence. The composite reliability values also indicate strong internal consistency among the items.

4. Results and Discussion

State of Internal Audit Activities

To examine the current state of internal audit practices within Ghana's MMDAs, descriptive statistics (means, standard deviations, skewness, and kurtosis) were employed. This quantitative approach provided a comprehensive snapshot of internal auditors' effectiveness, challenges, and perceived value, while highlighting systemic gaps in independence, resources, and management support. The result is shown in the table below.

Table 1: State of Internal Audit Activities

		Mean	Std. Dev	Skewness		Kurtosis	
		Stat	Stat	Statistic	Std. Error	Statistic	Std. Error
1	In my assembly, auditors detect early signs of improper financial management practices	4.87	1.50	-1.36	0.13	0.77	0.25
2	In my assembly, management implement Internal audit recommendations religiously.	3.57	1.60	-0.15	0.13	-1.15	0.25
3	Internal auditors are often caught up in financial malpractices	2.12	1.45	1.20	0.13	0.35	0.25
4	Internal auditors are not independent in my assembly.	4.23	1.78	-0.62	0.13	-1.03	0.25
5	The assembly does not take the training and development of auditors seriously.	4.10	1.80	-0.50	0.13	-1.19	0.25
6	Management intimidates auditors at my assembly.	3.59	1.74	-0.11	0.13	-1.33	0.25
7	Internal Auditors at my assembly are not given adequate resources to function effectively	4.23	1.74	-0.60	0.13	-1.03	0.25
8	Internal Auditors are punished with unnecessary transfers for ensuring swift implementation of internal controls at my assembly.	3.72	1.77	-0.21	0.13	-1.35	0.25
9	Internal Auditors at my assembly have the requisite expertise.	4.75	1.27	-1.31	0.13	1.36	0.25
10	Internal Auditors add value to the operations of my assembly	5.00	1.26	-1.47	0.13	1.70	0.25
11	Internal Auditors ensure value for money in the activities of my assembly	4.84	1.34	-1.24	0.13	0.85	0.25
12	Internal Auditors prevent fraud and error at my assembly	4.60	1.43	-1.05	0.13	0.27	0.25
	Overall	4.14	1.56	-0.62	0.13	-0.15	0.25

The descriptive statistics provide valuable insights into the state of internal audit activities within Ghana's Metropolitan, Municipal, and District Assemblies (MMDAs), aligning with the study's first objective. The data reveals a generally positive perception of internal auditors' effectiveness in key areas such as fraud detection and prevention. Items related to auditors' ability to detect early signs of improper financial practices (mean = 4.87), add value to operations (mean = 5.00), ensure value for money (mean = 4.84), and prevent fraud and errors (mean = 4.60) all scored highly, indicating strong agreement among respondents. These findings suggest that internal auditors in MMDAs are fulfilling their core functions effectively, which supports the theoretical expectation that audits play a crucial role in fraud prevention as outlined in the study's framework.

However, the data also highlights significant challenges that undermine the potential of internal audits. Issues such as lack of auditor independence (mean = 4.23), inadequate training and development (mean = 4.10), and insufficient resources (mean = 4.23) were prominently reported. These barriers align with the study's problem statement, which identifies systemic weaknesses in audit practices. Additionally, moderate agreement was found regarding management interference, including intimidation (mean = 3.59) and punitive transfers of auditors (mean = 3.72), further emphasizing the operational constraints faced by internal audit teams. These findings resonate with the Agency Theory discussed in the study, which highlights conflicts of interest and information asymmetry as key challenges in audit effectiveness.

The relatively low mean score for auditors being involved in financial malpractices (mean = 2.12) suggests that outright corruption among auditors is uncommon. However, the positive skewness (1.203) for this item indicates that while such cases are rare, they do exist and warrant attention. The overall picture that emerges is one of a system where internal auditors possess the requisite expertise (mean = 4.75) but operate in an environment that limits their effectiveness due to structural and cultural barriers.

These findings both reinforce and extend prior research in developing economies. The positive assessment of auditors' fraud prevention role corroborates Adekoya et al.'s (2023) findings in Nigerian manufacturing firms, confirming that internal audits add value even in resource-constrained environments. However, the documented interference from management conflicts with Conteh et al.'s (2024) Sierra Leone study, which reported stronger audit independence in similar contexts. This discrepancy may reflect Ghana's unique governance challenges, particularly political influences in local government operations.

The theoretical implications challenge the conventional application of Agency Theory in developing contexts, suggesting it may underestimate institutional barriers to audit effectiveness. Practically, the results underscore that technical auditor competence alone is insufficient without corresponding organizational support. For Ghana's MMDAs, this means audit reforms must address both capacity building (training, resources) and institutional safeguards (protections against intimidation, enforced implementation of recommendations). The findings particularly highlight the need for legal reforms to strengthen auditor independence, potentially through fixed-term appointments or centralized audit governance structures insulated from local political interference.

State of External Audit Activities

The evaluation of external audit efficacy relied on descriptive statistics to assess frequency, scope, and implementation challenges. By analysing central tendencies and dispersion metrics, this section reveals disparities between procedural compliance (e.g., regular audits) and practical outcomes (e.g., ignored recommendations). The result is shown in the table below.

Table 2: State of External Audit Activities

		Mean	Std. Dev	Skewness		Kurtosis	
		Stat	Stat	Statistic	Std. Error	Statistic	Std. Error
1	External audit reports are not being acted upon by my assembly	2.56	1.58	0.68	0.13	-0.83	0.25
2	No internal mechanism exists to ensure the implementation of external audit recommendations in my assembly	2.26	1.50	1.13	0.13	0.16	0.25
3	In my assembly, financial management practices are getting worse despite external audit activities.	3.13	1.76	0.27	0.13	-1.28	0.25
4	In my assembly external auditors carry out audits every year.	5.44	1.38	-2.52	0.13	5.00	0.25
5	External auditors scrutinize contract documents during the audit of my assembly	4.96	1.43	-1.48	0.13	1.28	0.25
	Overall	3.67	1.53	-0.38	0.13	0.87	0.25

The findings regarding external audit activities in Ghana's MMDAs reveal both strengths and critical gaps in the system. On the positive side, external audits are conducted regularly and thoroughly, as evidenced by the high mean scores for items such as "External auditors carry out audits every year" (mean = 5.44) and "External auditors scrutinize contract documents" (mean = 4.96). This indicates strong compliance with statutory requirements and suggests that auditors are paying attention to high-risk areas like procurement, which is particularly vulnerable to fraud. These results demonstrate that the structural framework for external audits is well-established and functioning as intended, at least in terms of frequency and scope.

However, the data also highlights significant shortcomings in how audit findings are utilized. The low mean scores for items like "External audit reports are not being acted upon by my assembly" (mean = 2.56) and "No internal mechanism exists to ensure implementation of external audit recommendations" (mean = 2.26) point to a systemic failure in enforcing audit recommendations. This lack of follow-through undermines the potential impact of external audits and helps explain why financial mismanagement persists despite regular audits. The positive skewness for these items further reinforces that this is a widespread issue across MMDAs, rather than isolated cases.

The neutral score for "Financial management practices are getting worse despite external audit activities" (mean = 3.13) presents a more nuanced picture. While not overwhelmingly negative, this finding suggests that external audits alone are insufficient to improve financial management practices. The negative kurtosis value indicates varied experiences across different assemblies, implying that some MMDAs may be benefiting more from audits than others. This variability could stem from differences in local governance structures, political will, or resource availability.

Taken together, these findings paint a picture of a system where external audits are being conducted properly on paper, but their real-world effectiveness is severely limited by implementation gaps. The study's second objective - to examine the state of external audit activities - thus reveals a crucial disconnect between audit processes and outcomes. For external audits to fulfill their potential as fraud prevention tools, there needs to be greater emphasis on enforcing recommendations and holding officials accountable for implementing changes. This aligns with the study's broader argument about the need to strengthen audit governance in Ghana's local government system.

The unexpected variation in outcomes across assemblies (evidenced by negative kurtosis values) points to the crucial moderating role of local leadership and institutional culture in audit effectiveness. This finding suggests that the quality of governance at the local level may be a more significant determinant of audit impact than the technical quality of the audits themselves. The theoretical implications question the sufficiency of institutional isomorphism for achieving genuine accountability, while the practical implications demand a fundamental rethinking of audit enforcement mechanisms in Ghana's decentralisation framework.

These findings both confirm and challenge existing literature on audit effectiveness in African contexts. The robust technical execution of audits supports Bawole and Hossain's (2020) observations about Ghana's growing audit capacity, yet the weak enforcement mechanisms contradict Muzurura and Mutambara's (2022) findings from Zimbabwe, where external audits demonstrated stronger deterrent effects. This discrepancy may be explained by Ghana's unique decentralization challenges, where local political dynamics appear to override central oversight mechanisms more effectively than in neighboring countries. The neutral assessment of financial management outcomes despite audit activities particularly undermines conventional assumptions about the automatic benefits of external oversight.

State of Forensic Audit Activities

Descriptive statistics were used to gauge the adoption and impact of forensic audits in MMDAs. Low mean scores and positive skewness highlighted systemic underutilization, while kurtosis values confirmed consistent deficiencies across assemblies. This analysis exposed critical gaps in specialised fraud detection capabilities, emphasising the untapped potential of forensic audits in Ghana's anti-fraud framework. The result is shown in the table below.

Table 3: State of Forensic Audit Activities

		Mean	Std. Dev	Skewness		Kurtosis	
		Stat	Stat	Statistic	Std. Error	Statistic	Std. Error
1	My assembly has employed the services of a Forensic auditor before.	1.68	1.26	2.20	0.13	4.25	0.25
2	My assembly has never been in court with a fraud-related case before	4.16	1.90	-0.54	0.13	-1.27	0.25
3	My assembly regularly trains senior management Staff on forensic investigation techniques	1.93	1.31	1.42	0.13	1.09	0.25
4	My assembly trains staff on techniques for preventing fraud red flags.	2.35	1.47	0.84	0.13	-0.44	0.25

5	My assembly trains staff on techniques for detecting fraud red flags.	2.30	1.42	0.89	0.13	-0.23	0.25
6	My assembly has employed fraud detectives before	1.78	1.21	1.72	0.13	2.41	0.25
7	My assembly regularly sponsors auditors to train on forensic audit.	1.98	1.30	1.43	0.13	1.35	0.25
8	I have attended seminars on forensic investigation before.	2.28	1.71	1.12	0.13	-0.21	0.25
9	I have in-depth knowledge of forensic audit.	2.60	1.60	0.65	0.13	-0.79	0.25
10	My assembly has set up an anti-fraud council.	1.69	1.18	2.08	0.13	4.01	0.25
11	My assembly has a whistle-blowing policy	2.05	1.41	1.30	0.13	0.73	0.25
	Overall	2.25	1.43	1.19	0.13	0.99	0.25

The findings regarding forensic audit activities in Ghana's MMDAs reveal significant gaps in fraud prevention capabilities, aligning with the study's third objective to examine their current state. The data paints a concerning picture, with an overall mean score of just 2.25 across all forensic audit-related indicators, suggesting these critical tools remain severely underutilized in local government operations. Particularly alarming is the extremely low score (mean=1.68) for assemblies having employed forensic auditors, indicating such specialized audits are rare exceptions rather than standard practice. This is compounded by minimal investment in staff training, evidenced by similarly low scores for training senior management in forensic techniques (mean=1.93), teaching fraud prevention methods (mean=2.35), and instruction on detection approaches (mean=2.30). The consistently positive skewness values across these items (ranging from 0.648 to 2.195) further confirm that proper forensic audit practices are absent in most MMDAs.

The data also highlights a troubling lack of institutional safeguards against fraud. Most assemblies operate without basic anti-fraud structures, as shown by the minimal scores for having an anti-fraud council (mean=1.69), implementing whistleblower policies (mean=2.05), or employing fraud detectives (mean=1.78). The high kurtosis values (reaching up to 4.245) demonstrate these deficiencies are widespread and systemic across nearly all MMDAs, not just isolated cases. While there are a few marginally better indicators - such as the relatively higher mean (4.16) for no fraud-related court cases and moderate scores (2.28-2.60) for individual forensic knowledge - the negative skewness (-0.54) for court cases reveals some assemblies do face fraud litigation, and the positive skewness for knowledge items indicates most staff lack proper forensic expertise.

These findings align with Owusu's (2018) earlier observations about Ghana's underutilization of forensic tools, they dramatically contradict global best practices documented in Lois et al.'s (2022) comparative study, where even peer-developing nations showed progressive adoption of forensic techniques. These findings have important implications for fraud prevention in Ghana's local government system. Currently, forensic audits appear to be used reactively (after fraud occurs) rather than as preventive measures. The minimal investment in building forensic capacity and the widespread absence of fundamental anti-fraud structures leave MMDAs vulnerable to financial malfeasance. To address these gaps, the study recommends mandating regular forensic audits for high-risk areas, developing comprehensive fraud training programs, establishing robust whistleblower protections and dedicated anti-fraud units, and incorporating forensic techniques into routine audit processes. The data clearly shows forensic audit practices represent the weakest component of Ghana's anti-fraud framework in local government, highlighting a critical area requiring urgent reform to effectively combat corruption in MMDAs.

Effect of Audit Activities on Fraud Prevention

Multiple regression analysis quantified the relationship between audit types (internal, external, forensic) and fraudulent financial practices. This statistical approach validated the complementary roles of different audits while highlighting the need for holistic reforms to maximise their collective impact. The result is shown in the table below.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.350a	0.122	0.115	0.56168	0.122	16.878	3	363	0

a Predictors: (Constant), Forensic Audit Activities, Internal Audit Activities, External Audit Activities

Table 5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.975	3	5.325	16.878	.000b
	Residual	114.522	363	0.315		
	Total	130.497	366			

a Dependent Variable: Fraudulent Financial Practices
b Predictors: (Constant), Forensic Audit Activities, Internal Audit Activities, External Audit Activities

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.381	0.196		12.166	0.000		
	Internal Audit Activities	0.162	0.045	0.203	3.565	0.000	0.748	1.336
	External Audit Activities	0.093	0.04	0.134	2.333	0.020	0.731	1.368
	Forensic Audit Activities	0.151	0.033	0.228	4.569	0.000	0.972	1.028

a Dependent Variable: Fraudulent Financial Practices

The regression analysis provides important insights into how different audit mechanisms influence fraudulent financial practices in Ghana's MMDAs, directly addressing the study's fourth objective. The model explains approximately 12.2% of the variation in fraudulent activities ($R^2 = 0.122$), suggesting that while audit activities play a statistically significant role in fraud prevention, other unmeasured factors likely contribute substantially to financial misconduct. This moderate explanatory power underscores the complex nature of fraud, which involves not just procedural controls but also behavioural and organisational culture elements.

All three types of audit activities demonstrate statistically significant relationships with fraudulent practices, though their relative impacts vary. Internal audits show the most consistent influence ($\beta = 0.203$, $p < 0.001$), supporting their crucial role as the first line of defence against fraud. This finding aligns with agency theory, emphasising how internal audits help align the interests of management (agents) with those of stakeholders (principals). External audits, while significant ($\beta = 0.134$, $p = 0.02$), exhibit a weaker effect, likely reflecting implementation gaps identified in earlier analyses, particularly the frequent failure to act on audit recommendations. Forensic audits emerge as particularly potent ($\beta = 0.228$, $p < 0.001$), suggesting their specialised investigative capabilities make them highly effective at uncovering and deterring fraud when properly deployed.

The model's overall significance ($F = 16.878$, $p < 0.001$) confirms that audit mechanisms collectively contribute to fraud prevention, while the absence of multicollinearity issues (all VIFs < 1.4) indicates each audit type provides distinct value. However, the modest R^2 value suggests audits alone cannot fully address fraud risks. This reinforces the need for complementary measures like whistleblower protections, ethical training, and stronger accountability mechanisms to create a comprehensive anti-fraud framework.

This finding supports Arena et al.'s (2020) contention that audits constitute a necessary but insufficient component of comprehensive fraud prevention systems. The particularly strong performance of forensic audits challenges prevailing scepticism about their applicability in local government contexts (Tantawy & Moussa, 2023), while simultaneously highlighting a troubling policy paradox: the most effective tool remains the least utilised in practice. The relatively weaker showing of external audits compared to internal ones contradicts Dezoort and Harrison's (2018) cross-country findings, possibly reflecting unique challenges in Ghana's decentralised system, where local political interference may disproportionately undermine external oversight.

These results carry important theoretical implications for adapting agency theory to account for power dynamics in audit relationships and for refining institutional theory to better explain implementation resistance in decentralised systems. The practical implications point toward the need for audit portfolio optimisation that reallocates resources to underutilised but high-impact forensic capabilities, while also developing integrated frameworks that strategically sequence different audit types based on risk assessments. The findings ultimately argue for moving beyond standalone audit solutions toward holistic integrity systems that combine formal oversight with cultural and institutional reforms.

Conclusion

This study set out to investigate the effectiveness of internal, external, and forensic audits in preventing fraudulent financial practices within Ghana's Metropolitan, Municipal, and District Assemblies (MMDAs). The findings present a nuanced picture of an audit system that, while structurally sound in many respects, suffers from critical implementation gaps that undermine its potential to curb fraud effectively. The research reveals that internal audits are widely recognized for their value in detecting and preventing financial malfeasance, with respondents affirming their role in identifying improper financial practices and ensuring value for money. However, this positive assessment is tempered by persistent challenges, including inadequate resources, lack of independence, and management interference, which collectively constrain auditors' ability to function optimally. External audits, though conducted regularly and with commendable thoroughness in scrutinizing documents and contracts, demonstrate limited impact due to systemic failures in enforcing recommendations. Most strikingly, forensic audits while showing the strongest correlation with fraud reduction remain severely underutilized, representing a missed opportunity in Ghana's anti-fraud arsenal. The regression analysis confirms that all three audit types contribute meaningfully to fraud prevention, but their combined explanatory power accounts for only 12.2% of the variation in fraudulent practices, underscoring the need for complementary measures beyond traditional audit mechanisms.

This study demonstrates that while audits remain an essential component of fraud prevention in Ghana's MMDAs, they cannot by themselves solve the problem of financial malfeasance. The findings call for a fundamental rethinking of anti-fraud strategies, moving beyond technical compliance to address the systemic and institutional barriers that undermine audit effectiveness. A comprehensive approach combining strengthened audit systems with political reforms, capacity building, and cultural change will be essential to curb fraud and promote accountability in Ghana's local governments. The study provides both a roadmap for immediate policy action and a foundation for future research to develop more nuanced, context-sensitive solutions for fraud prevention in decentralized governance systems across the developing world.

Recommendations

The study recommend institutionalizing forensic audits for high-risk transactions, creating mandatory enforcement mechanisms for external audit recommendations, and implementing safeguards to protect internal auditors from political interference. For MMDAs, there is to adopt integrated fraud prevention strategies that combine robust audits with whistleblower protections, staff training, and citizen oversight. The cross-sectional design, while providing a comprehensive snapshot of current audit practices, cannot establish causal relationships or track changes over time. The reliance on self-reported data, particularly on sensitive topics like fraud and audit shortcomings, may introduce response biases, despite efforts to ensure anonymity. The focus on Ghana's MMDAs, while providing valuable context-specific insights, may limit the generalizability of findings to other decentralized systems with different governance structures. Additionally, the study did not quantify certain qualitative factors such as political will, organizational culture, and informal networks that likely influence audit effectiveness but are difficult to measure through surveys alone. These limitations, while not undermining the core findings, suggest areas for methodological refinement in future research.

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