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Assessing Auditors' Fraud Detection Competency Gaps in Nigeria: A Required-versus-Possessed Competency Analysis of Professional Knowledge, Forensic Skills and Fraud Risk Assessment

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Abstract
Fraudulent activities have become increasingly challenging problem in Nigeria over the years, influencing the performances of both private and public sector due to its attendant effects of economic instability, absence of public trust and a trigger of monumental financial losses to organizations. As a result, this study thus, examined the gaps between the skills required and those possessed in professional knowledge, forensic skills and fraud risk assessment in an effort to assess the differences in auditors' ability to detect fraud in Nigeria. The study used a quantitative cross-sectional survey research design to gather data from qualified auditors in Lagos and Abuja. The study used a known population of 563 qualified auditors. A sample size of 234 was derived using Yamane's formula. A 20% allowance for non-responses raised the target number of questionnaires to 293. The test was comprised of 268 valid responses. Data were collected by a systematic questionnaire that measured the required and present competency level in the three domains. Descriptive statistics, Cronbach's alpha, paired-samples t-tests and repeated measures ANOVA were used. Results showed significant differences between the necessary and current professional knowledge (mean gap = 0.64, p <.001), forensic skills (mean gap = 0.64, p <.001), and fraud risk assessment skills (mean gap = 0.59, p <.001). The comparison analysis revealed that the levels of the competency gaps were different in the three domains. The study concluded that significant deficiencies in important areas of fraud detection among Nigerian auditors, especially in professional knowledge and forensic skills, with deficiencies being more pronounced. The study recommended the need for continuous professional development on competency gaps, practical training in forensic skills and improved fraud risk assessment skills for auditors. The findings offer empirical support for the establishment of more targeted auditor competency enhancement frameworks in Nigeria.

Keywords: Auditors, Competency Gap, Fraud Detection, Forensic Skills, Fraud Risk Assessment, Nigeria, Professional Knowledge

1. Introduction

The need to improve the fraud detection in Nigeria triggers the requirement for a competency analysis of auditors including their professional knowledge, forensic skills and fraud risk assessment. This is due to the fact that, over time, deceptive practices have emerged as a continual issue in Nigeria, impacting both the public and private sectors. The ubiquity of fraud jeopardizes economic stability, diminishes public confidence, and inflicts substantial financial detriment on enterprises (Al Natour *et al.,* 2025) [3]. The Association of Certified Fraud Examiners (ACFE) reports that worldwide losses due to fraud surpass $5 trillion each year, with emerging countries such as Nigeria being particularly impacted. In Nigeria, there has been a notable rise in financial fraud, cybercrimes, and embezzlement, propelled by weak government, insufficient law enforcement, and technical progress (Kamble & Devarmani, 2024; Abdullahi, 2024) [15, 1]. This renders the significant prevalence of fraud in Nigeria concerning. Tunji and Adediran (2024) [33], disclosed in a daily publication that the Office of the Auditor-General of the Federation identified anomalous payments exceeding ₦197.72 billion across different government bodies from 2020 to 2021. The discoveries encompassed payments for unfulfilled contracts, breaches of procurement regulations, and contracts granted without requisite authorizations. The Nigerian Bulk Electricity Trading Plc was significantly involved, having disbursed ₦100 billion for contracts that were not fulfilled. Furthermore, the investigation by the Nigerian National Petroleum

Corporation (NNPC) indicates an excessive deduction of funds in subsidy claims amounting to ₦28.5 billion, raising significant concerns (Ayodeji, 2024) [6].

Forensic analysis and fraud identification function as crucial tools in the fight against these deceptive practices (Abdullahi, 2024) [1]. Forensic investigation encompasses the utilization of investigative and analytical expertise to address conflicts or uncover fraud, frequently requiring the gathering and examination of court-admissible evidence (Kamble & Devarmani, 2024) [15]. Fraud detection, conversely, emphasizes the identification and prevention of deceitful actions before to inflicting substantial damage. The implementation of forensic investigation in Nigeria is very underdeveloped in relation to advanced economies. Although entities like the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Other Related Offenses Commission (ICPC) are responsible for combating financial crimes, their initiatives are frequently obstructed by systemic obstacles and issues of incompetence, which may stem from insufficient funding, inadequate personnel training, and a deficiency of advanced investigative tools (Odeyemi *et al.,* 2024). The deficiency of essential competency abilities in using various technical innovations, legal standards, proficient personnel, and organizational transparency has complicated forensic audits in Nigeria, resulting in insufficient identification of fraudulent operations (Mbatuegwu *et al.,* 2026) [18]. Nonetheless, in the absence of adequate training and proficiency in fraud detection, fraudulent activities cannot be readily identified, prevented, or deterred in any context. The complexity of contemporary fraud exceeds the capabilities of traditional auditing, which primarily emphasizes compliance and the accuracy of financial reporting rather than the identification of fraudulent activities (Alkhalaileh *et al.,* 2024) [4]. Governments continually seek more efficient methods to safeguard public resources from the menace of fraud within their operating systems. In light of the growing global recognition of forensic auditing as a tool for fraud prevention, it is imperative to evaluate the discrepancies between the requisite professional knowledge for auditors and their actual expertise for effective fraud detection, the forensic skills necessary for auditors and their existing capabilities in this area, as well as the competencies needed for fraud risk assessment compared to those currently held by auditors in Nigeria.

The study advances fraud-detection research by shifting attention from the general relationship between auditors' competencies and fraud detection to the specific magnitude and distribution of competency gaps (Fasua *et al.,* 2023) [9]. By separately examining professional knowledge, forensic skills, and fraud risk assessment, it identifies which competency domains exhibit the greatest shortfalls. This diagnostic focus provides a more actionable basis for targeted professional development and audit-capacity interventions within Nigeria's evolving financial accountability environment (Obadiah and Ibrahim, 2024; Offuh, 2025) [21, 22]. The study's originality lies in its structured comparison of auditors' required and possessed competencies across three distinct domains within the Nigerian context. Rather than treating competency as a single, undifferentiated construct, it operationalises competency gaps as the difference between required and possessed ratings and compares their relative magnitude. Its contribution depends on rigorous measurement, defensible competency benchmarks, and appropriate statistical testing. It does not assume that these domains have never been studied previously (Ogbaini *et al.,* 2024; Karyağdı and Karaca, 2026) [23, 16]. The study is timely amid increasingly sophisticated financial fraud, expanding expectations of auditor professional scepticism, and evolving international auditing requirements. The 2025 revision of International Standard on Auditing 240, effective for audits of periods beginning on or after 15 December 2026, strengthens the relevance of examining auditors' fraud-related competencies. Assessing current Nigerian competency gaps can therefore inform professional training, institutional capacity-building, and preparedness for heightened expectations surrounding fraud-risk assessment and audit responses.

1.1 Research Aim and Objectives

1. To assess the gap between the professional knowledge required of auditors and the professional knowledge they perceive themselves to possess for effective fraud detection in Nigeria.
2. To examine the gap between the forensic skills required of auditors and the forensic skills they perceive themselves to possess for fraud detection in Nigeria.
3. To evaluate the gap between the fraud-risk-assessment competencies required of auditors and the competencies they perceive themselves to possess in this area.
4. To compare the magnitude of perceived competency gaps across professional knowledge, forensic skills and fraud-risk assessment.

1.2 Research Hypotheses

H_{01}: There is no significant difference between the professional knowledge required of auditors and the professional knowledge they possess for effective fraud detection in Nigeria.

H_{02}: There is no significant difference between the forensic skills required of auditors and the forensic skills they possess for fraud detection in Nigeria.

H_{03}: There is no significant difference between the fraud risk assessment competencies required of auditors and the competencies they possess in this area.

2. Literature Review

2.1 Auditors' Competence

Competence of Auditors means the professional skill, knowledge and understanding to effectively perform audit function in compliance with regulatory and ethical norms. It encompasses the technical competence and ethical conscience to guaranty the quality and accuracy of the audit (IFAC, 2020) [14]. Competence entails continuing professional education, knowledge of auditing methodologies, and the ability to use judgment in complex financial situations (Dominic *et al.,* 2024) [7]. Globalization and technology progress have led to an increasingly complex business environment that requires auditors to exhibit strong analytical, digital and ethical competencies. As Eneje *et al.* (2026) [8], pointed out, highly competent auditors are able to employ technology breakthroughs like as forensic tools, data analytics and artificial intelligence to detect fraud and assess risk. Ineptitude typically leads to audit failure, data misunderstanding, and fraud that goes undetected. Furthermore, the professional competence varies

with the changes of accounting rules and technology advancements, it is not constant. Auditors need to exhibit due care, professional judgment, and continual progress to achieve audit credibility, as emphasized by the International Auditing and Assurance Standards Board (IAASB, 2025) [13]. In Nigeria, the problem of the gap in professional competence still exists due to insufficient technological exposure and inadequate training among audit experts. Thus, it is essential to promote auditors' competency through ethics-based education and technical literacy to minimize financial fraud and ensure the proper use of ethical principles in the technologically advanced auditing environment.

2.2 Fraud and Fraud Auditors' Skills

Olayiwola (2021) [27] and Olatunji (2024) [26] characterize fraud as the diverse methods that human creativity might devise, employed by one person to gain an advantage over another through deceitful assertions or the suppression of truth. It encompasses any unexpected events, deceptions, guile, or pretense, as well as any unjust methods via which one is deceived. Fraud encompasses a multitude of diverse behaviors, including deceptive insurance claims and complex, precisely orchestrated corporate frauds. Oyedokun (2024) [29] asserted that a proficient fraud auditor must possess a comprehensive understanding of fraud from several viewpoints: Individual and human, organizational, cultural, motivational, economic/competitive, social, regulatory, legal, and evidentiary. The competencies of a criminal investigator bear certain resemblances to those of an auditor. An auditor and a detective both pursue the veracity of business transaction accounting and the investigator's inquiry into the lawful conduct of individuals. Both ought to possess curious intellects and question elements that seem disordered and out of sequence, such as unusual timings and peculiar placements inside a phrase, aspects that contradict logical expectations.

2.3 Fraud Risk Assessment

Fraud risk evaluation examines the consequences, probability, and effects of fraud (Grove and Clouse, 2020) [11]. Musa and Idris (2024) [20], assert that the assessment of fraud risk has historically concentrated on two elements: The chance of the risk materializing and the importance of its possible consequences, encompassing both direct and indirect expenses to the organization. The speed at which a cybersecurity threat manifests or the duration required to inflict damage on the organization was established as a third element, risk velocity. Fraud risk evaluation proactively recognizes and mitigates an organization's internal and external fraud susceptibilities (Adewale and Yusuf, 2023) [2]. The Committee of Sponsoring Organizations (COSO) recognized twelve principal areas of focus for fraud risk assessment. In general, the evaluation of fraud risk necessitates collaborative efforts among management and aims to address all tiers of the organization to detect fraudulent risks (Ogwiji & Lasisi, 2022) [25]. This evaluation goes further than mere identification to analyze the organization's internal and external conditions. Assessing the probability and consequences of risk. Acknowledgment of the override controls exercised by individual managers is equally significant. Fraud risk evaluation encompasses more than numerical analysis, examining employee conduct and tackling the complexities of triangle fraud. The process involves evaluating the organization's fraud prevention measures and identifying risk reduction initiatives, and necessitates accurate information and techniques for knowledgeable assessment and reaction. Frequent evaluations of fraud risk, a formalized process that adjusts to evolving risk environments, enhance openness and responsibility in the organization's strategy for fraud prevention and oversight.

2.4 Investigative audits and limitations of audit practice

An investigative audit is conducted to examine potential fraud or misappropriation of an organization's funds, usually initiated by reports of atypical or dubious behavior associated with a person or department, concentrating on particular elements of their operations concerning fraud and corruption to enhance prevention and detection mechanisms (Akinyomi and Olutoye, 2025) [5]. It constitutes an essential component of the audit arsenal by addressing risks that jeopardize organizational success, such as deceitful expense claims, fraudulent service delivery, and revenue payment avoidance, while evaluating financial management standards, internal control systems, and electronic services; importantly, in contrast to other audits, it is typically performed without advance notice to potentially impacted individuals (Franca *et al.,* 2023) [10].

As per ICAN (2021) [12], audit methodologies possess inherent constraints; an auditor's assessment does not ensure an organization's future sustainability or the effectiveness of management, since audits primarily concentrate on reviewing historical financial documents, statements, and validating assets and liabilities, lacking certainty regarding future results. The main aim is to determine if the financial statements truthfully represent the company's financial status during the audit and to suggest enhancements in internal controls, rather than to analyze efficiency or validate the accounts as completely accurate. Auditors offer a level of certainty that aligns with user expectations from their reports; yet, they are unable to scrutinize every element of account balances, leaving the possibility of collaboration, misrepresentation, and evidence that is compelling yet not definitive (Oluwaleke, 2024).

3. Materials and Methods

The study utilized a cross-sectional design grounded in positivist philosophy to systematically investigate the variations in the auditors' proficiency in fraud detection in Nigeria focusing on the analysis of required versus possessed professional knowledge, forensic abilities, and fraud risk assessment. The study focused on auditors in Lagos and Abuja, Nigeria. The selection was based on a specific criterion to meet the eligibility requirements. The accessible population of the qualified auditors was 563, out of which 342 were in Lagos and 221 in Abuja. The minimum sample size was determined by the Yamane (1967) [35] finite-population formula, $n = N/[1 + N(e^2)]$ with a precision level of 5%. The minimum sample size required was 234 participants, with a population size of N = 563. To adjust for an expected 20% non-response rate, the sample was calculated by using $n/(1 - r)$ and the target was set for 293 usable responses. This was done proportionally giving a total of 115 participants from Abuja and 178 from Lagos. Where access was given, surveys were sent to all known

qualified auditors, with 293 representing the minimum desired volume of valid responses as outlined in Table 1 below.

Table 1: Summary of the Study's Population

Method	Applicability in this Study
Target population	The broader population of auditors to whom the study is conceptually relevant.
Accessible population	The 563 eligible auditors purposively identified within the study's practical sampling frame.
Minimum sample	234 valid responses calculated from the accessible population using Yamane's formula at 5% precision.
Adjusted target	293 valid responses after allowing for an anticipated 20% non-response rate.
Questionnaires distributed	293
Expected/possible returns	≤293

Source: Author's Construct (2026)

Data were collected using a structured questionnaire. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to explain the characteristics of the respondents and their responses to the items (Muhammed *et al.,* 2022) [19]. The internal consistency of the competency measures was assessed using Cronbach's alpha, as presented in Table 2, with the aim of exceeding the benchmark of.70. For each domain we calculated composite scores separately for required and possessed competencies. Competency gaps were calculated as Required minus Possessed. Paired-samples t-tests were conducted for Objectives 1-3 to examine whether there were significant differences between the desired and the actual levels of professional knowledge, forensic skills and fraud risk assessment proficiency, respectively. Statistical and practical relevance were evaluated by reporting mean differences, 95% confidence intervals, p-values, and Cohen's d. For Objective 4, the extent of the three competency deficiencies was assessed with repeated-measures ANOVA, and Bonferroni-adjusted pairwise comparisons were performed when the omnibus test was significant. Statistical significance was accepted at $p < 0.05$. Preliminary assumptions were checked before running inferential analyzes. Non-parametric alternatives were used where applicable, including Wilcoxon signed-rank and Friedman tests.

Table 2: Reliability Statistics

Construct	Code	Cronbach's α
Professional Knowledge Required	PKR	0.765
Professional Knowledge Possessed	PKP	0.818
Forensic Skills Required	FSR	0.780
Forensic Skills Possessed	FSP	0.825
Fraud Risk Assessment Required	FRAR	0.746
Fraud Risk Assessment Possessed	FRAP	0.821

Source: Author's Construct (2026)

4. Analysis and Discussion

4.1 Descriptive Statistics

This study distributed 293 questionnaires of which 268 were properly filled and returned indicating a response rate of about 91.47 percent. Table 3 shows the descriptive statistics for the background information of the respondents. It indicates the location to include Abuja (105) and Lagos (163) at a response rate of 39.2 and 60.8 respectively. The age group of respondents indicates 21–30 years (28), 31–40 years (86), 41–50 years (82), 51–60 years (56) and 61 and above years (16) at a response rate of 10.4, 32.1, 30.6, 20.9 and 6.0 percent correspondingly. The audit experience of respondents indicates 1–5 years (35), 6–10 (75), 11–15 (81), 16–20 (47) and 21 and above years (30) at a response rate of about 13.1, 28.0, 30.2, 17.5 and 11.2 percent consistently. The highest academic qualification of respondents indicates B.Sc./B.Tech (43), M.Sc./M.Tech (35), MBA/MPA (19), Professional qualification (161) and others (10) at a response rate of 16.0, 13.1, 7.1, 60.1 and 3.7 congruently. The current role of respondents indicates Audit Associate (40), Audit Managers (49), Audit Partner/Directors (32), Forensic/Investigative Auditors (25), Internal Auditors (50) and Senior Auditors (72) at a response rate of 14.9, 18.3, 11.9, 9.3, 18.7 and 26.9 simultaneously. The organizational type of respondents posits big four/international (57), medium audit firms (58), other large audit firms (54), public sector/internal audits (44) and small audit firms (55) at a response rate of about 21.3, 21.6, 20.1, 16.4 and 20.5 percent respectively.

Table 3: Background Information of Respondents

Category	Frequency (f)	Percent (%)	Cumulative Frequency
Location			
Abuja	105	39.2	39.2
Lagos	163	60.8	100.0
Total	**268**	**100**	
Age group (years)			
21–30 years	28	10.4	28
31–40 years	86	32.1	114
41–50 years	82	30.6	196
51–60 years	56	20.9	252
61 and above years	16	6.0	268
Total	**268**	**100**	
Audit experience (years)			
1–5 years	35	13.1	35
6–10 years	75	28.0	110
11–15 years	81	30.2	191
16–20 years	47	17.5	238
21 and above years	30	11.2	268
Total	**268**	**100**	
Highest qualification			
B.Sc./B.Tech	43	16.0	43
M.Sc./M.Tech	35	13.1	78
MBA/MPA	19	7.1	97
Professional qualifications	161	60.1	258
Other	10	3.7	268
Total	**268**	**100**	
Current role			
Audit Associates	40	14.9	40
Audit Managers	49	18.3	89
Audit Partner/Directors	32	11.9	121
Forensic/Investigative Auditors	25	9.3	146
Internal Auditors	50	18.7	196
Senior Auditors	72	26.9	268
Total	**268**	**100**	
Organisation type			
Big Four/Internationals	57	21.3	57
Medium audit firms	58	21.6	115
Other large audit firms	54	20.1	169
Public sector/Internal audits	44	16.4	213
Small audit firms	55	20.5	268
Total	**268**	**100**	

Source: Author's Field Survey (2026)

Table 4 displays the variable-level descriptive statistics for this study. It indicates that the topmost variable with the highest mean to be 'professional knowledge required (M = 4.1201)', 'fraud risk assessment required (M = 4.1172)' and 'forensic skills required (M = 4.0783)' positioned 1st, 2nd and 3rd respectively. The medium ranked variables include 'fraud risk assessment possessed (M = 3.5328)', 'professional knowledge possessed (M = 3.4844)' and 'forensic skills possessed (M = 3.4405)' positioned 4th, 5th and 6th correspondingly in line with the outcome of this study.

Table 4: Variable-level descriptive statistics

Construct	Mean	SD	Rank
Professional Knowledge Required	4.1201	0.4219	1
Fraud Risk Assessment Required	4.1172	0.3978	2
Forensic Skills Required	4.0783	0.4267	3
Fraud Risk Assessment Possessed	3.5328	0.4831	4
Professional Knowledge Possessed	3.4844	0.4792	5
Forensic Skills Possessed	3.4405	0.4983	6

Source: Author's Field Survey (2026)

4.2 Diagnostic Test

Table 5 presents the summary of the diagnostic tests results. After careful examination, the data were deemed appropriate for inferential analysis. All 268 responses were complete with no missing response at the item level or duplicate entries. The few observations identified by IQR across a number of composite variables were not excluded given the limited variability within the specified Likert-type response scale. The internal reliability for the six measurement scales was acceptable to good with Cronbach's alpha coefficients ranging from .746 to .825. All item-total correlations after adjustment were at a satisfactory level, suggesting the reliability of the competency assessments. Although the Shapiro-Wilk tests were statistically significant, the paired-difference distributions had very little skewness (−.354 to .092) and kurtosis (−.063 to .649); with the large sample size (N = 268), the paired-samples t-test is robust enough to accommodate these small distributional irregularities. Mauchly's test showed a violation of sphericity (W = 0.752, $\chi 2 \approx 75.86$, p <.001), thus, the Greenhouse–Geisser correction (ε = .801) was applied to the repeated-measures ANOVA.

Table 5: Diagnostic Test Summary

Diagnostic	Result	Assessment
Valid records	268	Complete
Item-level missing values	0	None
Duplicate IDs	0	None
Cronbach's α: PK required	.765	Acceptable
PK possessed	.818	Good
FS required	.780	Acceptable
FS possessed	.825	Good
FRA required	.746	Acceptable
FRA possessed	.821	Good
Shapiro–Wilk paired differences	W=.976–.979; p<.001	Statistical non-normality; skewness/kurtosis modest
Skewness	−.354 to .092	No serious asymmetry
Kurtosis	−.063 to .649	No serious kurtosis
Mauchly's test	W=.752, $\chi^2 \approx 75.86$, p<.001	Sphericity violated
Greenhouse–Geisser ε	.801	Correction applied

Source: SPSS Output (2026)

4.3 Inferential Statistics

Objective 1: *Professional Knowledge Competency Gap*

The data in Table 6 reveal a large gap between the professional knowledge auditors need to be effective in detecting fraud and the professional knowledge they have. The mean competency gap was 0.636 points. This was significantly higher than the required mean score of 4.120 as against the possessed mean of 3.484. The 95% confidence interval (0.589–0.682) suggests that the estimated gap is always positive and does not contain zero. This difference was also statistically significant by paired-samples t-test, t(267)=27.009, p<.001. Most importantly, the very large Cohen's dz of 1.650 suggests that the finding is not only statistically significant, but practically substantial. The evidence therefore points to a large deficiency in the professional knowledge of the respondents as to the level of knowledge thought necessary to carry out the detection of fraud successfully.

Table 6: Professional knowledge competency gap result

Domain	Required Mean	Possessed Mean	Mean Gap	SD Gap	t	Sig.	95% CI Gap	Cohen's dz
Professional Knowledge	4.120	3.484	0.636	0.385	27.009	0.0000	0.589 to 0.682	1.650

Source: SPSS Output (2026)

Objective 2: *Forensic Skills Competency Gap*

Forensic skills competency gap is summarized in Table 7. The results point to a definite and practically relevant lack of forensic skills in the auditors. Mean level of forensic skills required (4.078) was significantly higher than mean level of forensic skills possessed (3.440) leading to a competency gap of 0.638 points which is slightly larger than the professional-knowledge gap. The 95% confidence interval of 0.587–0.690 gives strong evidence that the true mean difference is positive. The paired-samples t-test indicates that the observed difference is statistically significant, t(267) = 24.400, p <.001. Further, the Cohen's dz of 1.490 reveals a very large within-respondent effect, which suggests that the gap has a large practical magnitude. This means auditors' current forensic skills are probably not enough to deal with the specialized skills needed to look into complicated transactions, assess evidence, and find complex fraud schemes.

Table 7: Forensic skills competency gap result

Domain	Required Mean	Possessed Mean	Mean Gap	SD Gap	t	Sig.	95% CI Gap	Cohen's dz
Forensic Skills	4.078	3.440	0.638	0.428	24.400	0.0000	0.587 to 0.690	1.490

Source: SPSS Output (2026)

Objective 3: *Fraud Risk Assessment Competency Gap*

There is a large gap between auditors' required and possessed fraud-risk-assessment competencies, as shown in Table 8. The mean score of possessed competency (3.532) was comparatively higher than the mean scores of possessed professional knowledge and forensic skills, but significantly lower than the required level (4.117), with a mean gap of 0.585 points. The 95% confidence interval (0.536-0.634) corroborates the direction and consistency of the difference. The paired-samples t-test was t(267) = 23.357, p <.001, which is statistically significant, and the Cohen's dz of 1.427 indicates a very large practical effect. The finding is thus statistically significant and important in itself. Auditors appear to see a substantial gap in their ability to identify, assess and respond to fraud risks properly. Thus, developing auditor fraud-risk-assessment competency should remain an important part of auditor development and fraud-detection capacity building.

Table 8: Fraud risk assessment competency gap result

Domain	Required Mean	Possessed Mean	Mean Gap	SD Gap	t	Sig.	95% CI Gap	Cohen's dz
Fraud Risk Assessment	4.117	3.532	0.585	0.410	23.357	0.0000	0.536 to 0.634	1.427

Source: SPSS Output (2026)

Objective 4: *Comparison of Competency-Gap Magnitudes*

Table 9. Summary of competency-gap mean comparison

The descriptive results indicate that the highest mean gap was in the forensic skills (M = 0.638), followed by the professional knowledge (M = 0.636), and finally in the fraud risk assessment (M = 0.585). However, the differences in means are relatively small, indicating that the competency deficits are generally similar across the three domains rather than concentrated in one domain.

Table 9: Mean comparison of competency-gap result

Competency Gap	Mean	SD
Professional Knowledge	0.636	0.385
Forensic Skills	0.638	0.428
Fraud Risk Assessment	0.585	0.410

Source: SPSS Output (2026)

As shown in Table 10, the repeated-measures ANOVA results indicate that the differences in the magnitude of competency-gap are not statistically significant, F(2, 534) = 2.030, p = .132, with a very small partial η2 of .008. Therefore, the descriptive means are not too different and there is not enough evidence to say that some competence area has a systematically larger gap than the others. The result is consistent with the view that the competency deficit is broad-based and relatively consistent across the three domains.

Table 10: Repeated-measures ANOVA

Source	SS	df	MS	F	Sig.	Partial η^2
Competency-gap domain	0.481	2	0.241	2.030	0.1324	0.008
Error	63.305	534	0.119			
Total	133.970	803				

Source: SPSS Output (2026)

Table 11 indicates the pairwise comparisons summary and reinforce the overall ANOVA result, as none of the three domain comparisons is statistically significant after Bonferroni adjustment (p = 1.000, 271 and .248, respectively). The confidence intervals for all comparisons also include zero, confirming that the observed mean differences could reasonably reflect sampling variation. Therefore, the marginally higher forensic-skills gap should not be interpreted as statistically greater than the professional-knowledge or fraud-risk-assessment gaps.

Table 11: Pairwise comparisons summary

Comparison	Mean Difference	Sig. (Bonferroni)	95% CI
PK vs FS	-0.002	1.0000	-0.059 to 0.055
PK vs FRA	0.051	0.2705	-0.008 to 0.109
FS vs FRA	0.053	0.2483	-0.007 to 0.113

Source: SPSS Output (2026)

4.4 Summary of Findings Against Objectives

Table 12 shows the summary of findings relative to all objectives. It shows that Paired-samples t-test was used to analyze objective 1-3 and objective 4 was analyzed by using repeated-measures ANOVA + Bonferroni. The result shows gap = 0.636; p < .001, gap = 0.638; p < .001 and gap = 0.585; p < .001 for objective 1-3 respectively while F = 2.030; p = 0.1324; partial η^2 = 0.008 was obtained for objective 4.

Table 12: Summary of Findings Against Objectives

Objective	Analysis	Key result
1. Professional knowledge gap	Paired-samples t-test	Required > possessed; gap = 0.636; p < .001
2. Forensic skills gap	Paired-samples t-test	Required > possessed; gap = 0.638; p < .001
3. Fraud risk assessment gap	Paired-samples t-test	Required > possessed; gap = 0.585; p < .001
4. Compare gap magnitudes	Repeated-measures ANOVA + Bonferroni	F = 2.030; p = 0.1324; partial η^2 = 0.008

Source: SPSS Output (2026)

4.5 Discussion of Findings

H_{01}: *There is no significant difference between the professional knowledge required of auditors and the professional knowledge they possess for effective fraud detection in Nigeria.*

The finding implies that the amount of professional knowledge required to detect fraud efficiently is significantly higher than the knowledge available to auditors (p <.001), leading to the rejection of H_{01}. This implies that the specialized knowledge requirements of fraud detection may not be fully satisfied by formal accounting and auditing knowledge. Many public sector studies support this interpretation by showing that forensic-auditing knowledge, including knowledge related to financial statement valuation and economic-damage assessment, is important to effective fraud detection (Oyedokun, 2024; Ayodeji, 2024) [29, 6].

Earlier Nigerian evidence also found knowledge as a core component of the capability requirements of auditors and forensic accountants for fraud related tasks (Popoola *et al.,* 2014; 2015) [32, 31]. This finding indicates that, in terms of competency theory, there is a discrepancy between the knowledge competency required by fraud-detection tasks and the competency that auditors currently possess. This gap is thus, not only an educational shortfall but also a possible task–competency mismatch that can limit auditors' ability to identify complex fraud signals, interpret unusual transactions and exercise appropriate investigative judgment. The finding underscores the need for ongoing professional development beyond the traditional audit knowledge to specialized fraud-detection knowledge.

H_{02}: *There is no significant difference between the forensic skills required of auditors and the forensic skills they possess for fraud detection in Nigeria.*

The result shows a significant difference between the forensic skills required and the skills possessed by auditors ($p < .001$), allowing to reject H_{02}. This finding is especially significant as modern fraud detection increasingly demands investigative, analytical, technological and evidence-evaluation skills rather than dependence solely on traditional audit procedures. The Nigerian evidence is strongly in support of this view. Oyerogba (2021) [30], discovered that forensic-auditor skills and techniques were a significant predictor of fraud detection in the Nigerian public sector. Likewise, studies on Nigerian MDAs revealed that investigative, auditing, legal/litigation, analytical and technical skills generally improve financial-fraud detection. Recent evidence from Nigeria also reported positive effects of forensic auditing skills on fraud detection, although the strength of the individual skill dimensions may vary (Ogbaini *et al.,* 2024; Offuh, 2025) [23, 22]. The perceived gap thus, signifies an underdeveloped human-capital resource and emphasizes the importance of targeted practical training, forensic tools and continuous skills development.

H_{03}: *There is no significant difference between the fraud risk assessment competencies required of auditors and the competencies they possess in this area.*

The results indicate a significant difference between the fraud risk assessment competency required and the competency possessed by auditors, ($p < .001$) leading to the rejection of H_{03}. This implies that auditors may face a capability deficit in one of the most important stages of fraud detection: Identification, evaluation and appropriate response to fraud-related risk signals. This finding is consistent with Nigerian research which considers fraud-risk assessment as a core competency requirement for auditors and forensic accountants. Popoola *et al.* (2015) [31], identified fraud-risk assessment as well as knowledge and skills as key capability requirements for fraud prevention, detection and response. More Nigerian evidence also finds that risk assessment is relevant to fraud detection and reports that forensic expertise, skills and risk assessment capability contribute to countering financial fraud (Tunji and Adediran, 2024; Vutumu *et al.,* 2025) [33, 34]. This finding suggests, from the lens of competency theory, that the technical needs of fraud-risk assessment have outstripped the competencies currently available to auditors. This has important professional implications, as a poor risk-assessment ability may reduce the probability of auditors to detect high risk transactions and to direct audit attention, appropriately, to areas where fraudulent activity is more likely to happen.

Objective 4: *Comparison of Competency-Gap Magnitudes*

The greatest mean competency gap was found to be for forensic skills ($M = 0.638$) followed by professional knowledge ($M = 0.636$). Fraud risk assessment was linked with the lowest mean competency gap ($M = 0.585$). Nevertheless, repeated-measures analyzes indicated that these differences were not statistically significant, suggesting that the magnitude of competency deficiencies does not differ substantially across the three domains. This finding suggests that the lack of auditors' competencies is systemic and not related to a specific field and, therefore, supports the need for integrated competency development rather than isolated interventions (Oni and Oyedokun, 2023) [28]. This result is consistent with the literature that portrays fraud detection as a multidimensional professional capability, based on complementary knowledge, investigative skills and risk-assessment competence, rather than a single competency domain (Ogunleye and Danjuma, 2025) [24]. This finding implies that from a competency theory perspective the required-possessed gap exists across a number of competency dimensions; that is, there is a more systemic misalignment between the capabilities required to meet the fraud-detection responsibilities of today and those possessed by auditors (Kibet and Otieno, 2024) [17]. Therefore, the absence of statistically significant differences is an important finding. Numerically, the shortfalls in forensic skills and professional knowledge are somewhat larger, but there is no area where we can empirically find a disproportionate deficiency. Thus, the development of teachers' competencies should be directed toward all three domains of competencies in parallel and not prioritizing one of them over the others.

5. Conclusion and Recommendations

5.1 Conclusion

This study that assessed auditors' fraud detection competency gaps in Nigeria focusing on a required-versus-possessed competency analysis of professional knowledge, forensic skills and fraud risk assessment concludes that perceived competency challenge is broad-based rather than confined to a single domain indicating that auditors are not incapable of detecting fraud.

5.2 Recommendations

The following recommendations are inferred from this study's conclusion:

1. There is a need for professional accounting and auditing bodies, audit firms and relevant regulatory institutions to enhance the continuing professional development programs by including advanced fraud detection knowledge, complex transaction analysis, financial statement fraud indicators, emerging fraud schemes and specialized investigative knowledge in the mandatory auditor training.
2. There is equally a need for audit firms and professional bodies to create structured, practice-oriented programs for the development of forensic skills, covering forensic investigation, analysis of digital and financial evidence, data analytics, investigative interviewing, evidence documentation and litigation-support techniques,

supplemented by practical, case-based exercises and assessments of competence.
3. Audit firms should enhance their ability to evaluate fraud risk by offering ongoing training on subjects like fraud risk factors, fraud-risk indicators, professional skepticism, risk-based audit planning and response to fraud risk, including the application of formalized fraud-risk assessment tools, and periodic competence evaluations within the audit quality assurance system.
4. Building professional and regulatory institutions should be based on the competency gaps, with the prioritization of interventions based on the magnitude of identified gaps. Special attention should be given to areas with the largest gaps. At the same time, development in all three competency areas should be ongoing to provide a balanced fraud detection capability.

5.3 Contributions and Limitations of the Study

The study provides quantitative evidence of gaps between required and possessed auditor competencies in professional knowledge, forensic skills and fraud-risk assessment in the setting of Nigeria. This study adopts competency theory to auditor fraud-detection capability to conceptualize competency gaps as potential gaps in individual and organizational capabilities. This study extends the traditional studies that only assess auditor competencies in terms of their presence or effectiveness to measure both the required and possessed competency levels. The findings provide an evidence based foundation for professional bodies, audit firms and regulators to prioritize auditor training and professional development on identified competency deficiencies. The results can be used to inform competency standards, continuing professional development requirements and capacity building interventions for auditors involved in fraud detection in Nigeria. The study is limited to auditors in Lagos and Abuja and the extent to which the findings can be generalized to auditors in other Nigerian states is therefore limited. The study is focused on professional knowledge, forensic skills and fraud risk assessment, leaving aside other potentially relevant competences, such as technological proficiency, ethical judgment, communication and professional skepticism. Competency levels are determined on the basis of respondents' perceptions which might be affected by self-assessment bias, social desirability and over or under-reporting of possessed competencies. Data collected at a single point in time limits the ability to determine how competency gaps evolve over time or if professional development subsequently reduces them. The study uses purposively identified and reachable auditors which could lead to selection and accessibility bias and thus reduce the statistical representativeness of the wider Nigerian auditing population.

6. References

1. Abdullahi MJ. Leveraging Machine Learning in Classifying Fraudulent and Legitimate Transactions in Banking Sector. Ilorin Journal of Computer Science and Information Technology. 2024; 7(1 SE-Articles):40-64. https://www.iljcsit.com.ng/index.php/ILJCSIT/article/view/103
2. Adewale T, Yusuf I. Professional skepticism and fraud risk assessment: Evidence from Nigeria. Journal of Accounting and Auditing Studies. 2023; 9(2):44-59.
3. Al Natour AR, Al-Mawali H, Zaidan H, Said YHZ. The role of forensic accounting skills in fraud detection and the moderating effect of CAATTs application: Evidence from Egypt. Journal of Financial Reporting and Accounting. 2025; 23(1):30-55. Doi: https://doi.org/10.1108/JFRA-05-2023-0279
4. Alkhalaileh R, Alshurafat H, Ananzeh H, Al Amosh H. The impact of external auditors with forensic accounting competencies on auditee firm performance. Heliyon. 2024; 10(11):e32099. Doi: https://doi.org/10.1016/j.heliyon.2024.e32099
5. Akinyomi OJ, Olutoye AB. Internal audit independence and fraud prevention in Nigerian public sector institutions. International Journal of Public Sector Management. 2025; 38(2):144-160.
6. Ayodeji IA. Fraud detection and prevention in the Nigerian financial industry. PhD Dissertation, Doctor of Information Technology, Walden University, 2024, 1-112. https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=18284&context=dissertations
7. Dominic ES, Omoye AS, Odubuasi AC. Characteristics and skills of forensic accountants for effective financial fraud control in Nigeria. European Journal of Accounting, Auditing and Finance Research. 2024; 12(7):98-117. Doi: https://doi.org/10.37745/ejaafr.2013/vol12n798117
8. Eneje BC, Udefi GU, Okorieocha OC. Audit Digitalization and its Impact on fraud Prevention and Detection: Evidence from Nigeria. AEFUNAI Journal of Behavioural Accounting (JBA). 2026; 2(2).
9. Fasua HK, Amodu MA, Adeniran TE. Fraud detection and forensic accounting in listed manufacturing firms in Nigeria. International Journal of Research and Innovation in Social Science, 2023. Doi: https://doi.org/10.47772/IJRISS.2023.7439
10. Franca L-AE, Ofurum C, Egbe S. Forensic accounting and fraud detection in Nigerian public sector: A case study of Rivers State. Asian Journal of Economics, Finance and Management. 2023; 5(1):275-286. https://journaleconomics.org/index.php/AJEFM/article/view/207
11. Grove H, Clouse M. Fraud risk assessment for financial institutions. International Journal of Finance and Economics. 2020; 27(2):89-101.
12. ICAN. Advanced Audit and Assurance. Institute of Chartered Accountants of Nigeria, Victoria Island, 2021.
13. International Auditing and Assurance Standards Board. International Standard on Auditing 240 (Revised): The auditor's responsibilities relating to fraud in an audit of financial statements, 2025. https://www.iaasb.org/publications/isa-240-revised-auditor-s-responsibilities-relating-fraud-audit-financial-statements
14. International Federation of Accountants (IFAC). International code of ethics for professional accountants (including International Independence Standards). International Ethics Standards Board for Accountants (IESBA), 2020. https://www.ifac.org
15. Kamble Y, Devarmani NG. Application of Artificial Intelligence (AI) in Forensic Investigation. About the Editors. 2024; 197.

16. Karyağdı NG, Karaca H. The increasing role of auditors' competence and self-efficacy in detecting fraud and the impact of CAATTs implementation. Kafkas University Journal of Economics and Administrative Sciences Faculty. 2026; 17(33). Doi: https://doi.org/10.36543/kauiibfd.2026.010
17. Kibet J, Otieno P. Auditor independence and financial fraud detection: Evidence from Sub-Saharan Africa. African Journal of Accounting and Auditing. 2024; 12(1):77-92.
18. Mbatuegwu CD, Adebisi JF, Adedoyin ET. Forensic accounting and financial fraud detection: Evidence from manufacturing companies in Nigeria. International Journal of Accounting, Management and Economic Review. 2026; 2(2). Doi: https://doi.org/10.57233/ijamer.v2i2.13
19. Muhammed AO, Muhammed AA, Yakubu HA, Suleiman A, Adam A. Assessment of Factors Affecting Contractors Tendering Success for Construction Projects in North-Central Nigeria. International Journal of Real Estate Studies. 2022; 16(1):87-99. Doi: https://doi.org/10.11113/intrest.v16n1.155
20. Musa A, Idris Y. Professional judgment, skepticism, and fraud risk assessment in the audit process. African Journal of Accounting and Management Studies. 2024; 19(1):33-47.
21. Obadiah TG, Ibrahim A. Financial fraud detection in ministries, departments and agencies (MDAs) in Nigeria: The role of forensic accounting skills. International Journal of Research and Innovation in Social Science, 2024. Doi: https://doi.org/10.47772/IJRISS.2024.8080216
22. Offuh AP. Forensic audit skills and fraud detection. Management Sciences Horizon Journal. 2025; 1(1):215-225. Doi: https://doi.org/10.67862/msh.2025.3g6m94kw
23. Ogbaini AC, Akpor AA, Oboh R, Oputa JE, Marvis VB. The role of forensic accounting in fraud detection and prevention in Nigerian public sector: A case study of Lagos, Nigeria. Pedagogik: Jurnal Pendidikan. 2024; 19(1). Doi: https://doi.org/10.33084/pedagogik.v19i1.7005
24. Ogunleye S, Danjuma H. Strengthening auditor skepticism for fraud prevention in emerging economies. Journal of Contemporary Accounting Research. 2025; 12(1):34-50.
25. Ogwiji J, Lasisi IO. Internal Control System and Fraud Prevention of Quoted Financial Services Firms in Nigeria: A Smart PLS-SEM Approach. European Journal of Accounting, Auditing and Finance Research. 2022; 10:1-33.
26. Olatunji JA. Technology adoption and audit quality: A comparative study of Nigeria and developed economies. African Journal of Accounting Research. 2024; 18(2):112-130.
27. Olayiwola YO. Fraud practices and African public enterprises development. International Journal of Sociology. 2021; 10(2):765-781.
28. Oni SO, Oyedokun GE. Forensic accounting evidence: Preservation and admissibility. National Journal of Multidisciplinary Research and Development. 2023; 8(2):53-58. www.multidisciplinaryjournal.org
29. Oyedokun GE. Fundamentals of Forensic Accounting and Fraud Examination. Oge Publishing Limited, Lagos. 3rd Edition, 2024.
30. Oyerogba EO. Forensic auditing mechanism and fraud detection: The case of Nigerian public sector. Journal of Accounting in Emerging Economies. 2021; 11(5):752-775. Doi: https://doi.org/10.1108/JAEE-04-2020-0072
31. Popoola OMJ, Che-Ahmad A, Samsudin RS. Forensic accountant and auditor knowledge and skills requirements for task performance fraud risk assessment in the Nigerian public sector. In Proceedings of the International Conference on Accounting Studies (ICAS 2015), 2015, 401-421. https://repo.uum.edu.my/id/eprint/15849/1/Forensic_Accountant_and_Auditor_Knowledge_and_Skills_Requirement_for_Task_Performance_Fraud_Risk_Assessment pdf.pdf
32. Popoola OMJ, Che-Ahmad A, Samsudin RS. Forensic accounting knowledge and mindset on task performance fraud risk assessment. International Journal of Business and Management. 2014; 9(9):1-16. Doi: https://doi.org/10.5539/ijbm.v9n9p1
33. Tunji S, Adediran O. Auditor-general uncovers N197bn contract fraud in MDAs. The Punch, November 24, 2024. https://punchng.com/auditor-general-uncovers-n197bn-contract-fraud-in-mdas/
34. Vutumu A, Aregbeyen O, Akinteye AS. Impact of Forensic Accounting on Internal Control Effectiveness and Fraud Prevention in Nigerian Public Sector. Journal of Financial Risk Management. 2025; 14:565-592. Doi: https://doi.org/10.4236/jfrm.2025.144030
35. Yamane T. Statistics: An Introductory Analysis. London: John Weather Hill, Inc, 1967.