

## Effect of Audit Quality and Detection of Irregularities in Mdas in Nigeria

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### Abstract

### Original Research Article

The study was concerned with measuring the effect of audit quality on the detection of irregularities in Ministries, Departments and Agencies in Nigeria using an explanatory approach based on the use of quantitative survey data. 391 valid sets of responses, obtained from a cross-sectional survey, were utilised in the estimation of a path model, using the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach. Estimated path coefficients showed Audit Quality components of Audit Independence and Auditor Expertise to be positive and statistically significant predictors of Detection of Irregularities in the study area. It is, therefore, crucial that MDAs strengthen auditor independence by instituting clear reporting lines that separate audit functions from management influence, with periodic review of independence safeguards by regulatory oversight bodies to confirm compliance. Additionally, MDAs should prioritise the continuous development of auditor expertise by implementing structured training programmes, sponsoring professional certifications, and providing access to contemporary auditing tools and technologies. Regular workshops and refresher courses should be institutionalised to maintain up-to-date knowledge of auditing standards and emerging risk areas.

**Keywords:** Audit quality, Auditor independence, Auditor expertise, Detection of irregularities, Public sector auditing.

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### Introduction

Globally, the detection of irregularities in Ministries, Departments, and Agencies (MDAs) remains a critical governance issue, with financial mismanagement, fraud, and corruption posing significant threats to public accountability. Governments worldwide have implemented various audit mechanisms to enhance transparency and compliance with

financial regulations. However, cases of misappropriation of funds, procurement fraud, and weak internal controls continue to undermine public trust. In many countries, including the United States, the United Kingdom, and several European nations, audit reforms have been introduced to strengthen public sector auditing, yet challenges persist. Studies have shown that weak audit quality contributes to the inability to detect irregularities

in public institutions, as ineffective audits allow financial misconduct to go undetected (Kamara, 2023; Arum & Wahyudi, 2020).

In Nigeria, irregularities in MDAs have become a recurring issue, despite the existence of statutory audit requirements and oversight mechanisms. Reports from the Auditor-General for the Federation frequently highlight cases of unaccounted funds, unauthorized expenditures, and violations of financial regulations. The 2022 audit report, for instance, revealed widespread irregularities across several MDAs, amounting to billions of naira in unverified expenses. Weak enforcement of audit recommendations and compromised audit processes have contributed to the persistence of these issues. Scholars argued that the effectiveness of public sector audits in Nigeria is contingent upon the quality of the audit process, which includes independence, expertise, and the role of the audit committee (Riadi, et al., 2025; Umar, et al., 2019; Okaro & Okafor, 2013).

Audit independence is a fundamental aspect of audit quality that enhances the detection of irregularities in MDAs. An independent auditor is more likely to objectively assess financial statements, report inconsistencies, and resist external influences from management or government officials. Studies have shown that auditor independence significantly reduces the likelihood of financial misreporting and fraud in public institutions (Henny, et al., 2024; Gul et al., 2013). However, in Nigeria, audit independence is often compromised due to political interference, inadequate remuneration, and threats to job security. Auditors in the public sector may face pressures to alter reports, leading to a failure in detecting financial irregularities.

Auditor expertise in public sector accounting is another crucial determinant of audit effectiveness. The complexity of government financial transactions requires auditors to have specialized knowledge in public sector accounting standards and regulations. Research has indicated that auditors with expertise in public sector financial management are better equipped to identify fraudulent activities and assess compliance with financial laws (Syamsuri, et al., 2023; Abbott, et al., 2016). In Nigeria, the shortage of skilled auditors in public

sector accounting has been a major challenge, with many audit reports failing to highlight critical financial mismanagement due to a lack of technical competence.

The global challenge of audit quality and the detection of financial irregularities within public sector organizations remains a significant concern. Across different regions, audit failures have led to the mismanagement of public funds, corruption, and inefficient use of resources, despite stringent regulatory frameworks and the adoption of international auditing standards. Previous studies have highlighted that while audit processes in the public sector are designed to identify irregularities, their effectiveness is often compromised by factors such as political interference, inadequate resources, and poorly structured audit committees (Chan & Houghton, 2020; Michels & Schröder, 2019). In particular, many countries face difficulties in ensuring that audits provide a comprehensive view of financial irregularities, leading to challenges in improving governance and accountability.

In the Nigerian context, the problem of audit quality in Ministries, Departments, and Agencies (MDAs) is particularly pronounced. Despite reforms aimed at improving public sector auditing in Nigeria, there remain persistent issues related to the detection of financial irregularities, with many MDAs failing to meet required audit standards (Okoye, Ogbodo, & Adeniyi, 2023). Several studies have explored audit practices in Nigerian banks or non-financial firms (Agbaje et al., 2021), but these findings cannot be directly generalized to MDAs, where unique governance dynamics, political interference, and institutional weaknesses may significantly impact audit quality. This narrow focus of previous studies raises concerns about the extent to which the findings can be applied to MDAs and their auditing challenges.

The existing literature on audit quality in Nigerian MDAs reveals several gaps. Many studies focus on specific sectors, limiting the applicability of their findings to other public sector domains (Salawu, 2017). In addition, studies often rely on outdated data, which does not account for recent regulatory changes or shifts in the Nigerian economic environment

(Adeyemi & Okpala, 2011). The sample sizes used in many of these studies are also small, and their cross-sectional design restricts the ability to draw conclusions about causal relationships between audit quality and irregularities (Uwuigbe & Olayinka, 2020). Furthermore, there is a notable under exploration of contextual factors such as political interference, regulatory weaknesses, and governance challenges that may influence audit quality and the detection of irregularities in Nigerian MDAs (Nuhu & Mohammed, 2019; Sadiq & Raza, 2019).

This study seeks to address these literature gaps by examining audit quality in Nigerian MDAs, with a specific focus on the factors that influence the detection of financial irregularities. Thereby utilizing a more comprehensive approach that includes both quantitative and qualitative methods, this study will explore not only the standard audit committee characteristics but also the broader contextual dynamics, such as political interference and institutional weaknesses that affect audit quality in Nigerian MDAs. Moreover, this study will employ the Smart PLS (Partial Least Squares) method for data analysis, which allows for a more robust assessment of complex relationships among variables, including the impact of audit committee characteristics, governance structures, and institutional factors on audit effectiveness.

This study is particularly motivated by the persistent financial irregularities in Nigerian MDAs, as evidenced in agencies such as the **Nigerian Social Insurance Trust Fund (NSITF)** and the **Nigerian Ports Authority (NPA)**. The NSITF audit report of 2021 revealed over **₦17 billion** in unapproved expenditures, missing financial records, and improper contract allocations. Similarly, the NPA has faced allegations of misappropriation of funds, including unremitted revenues amounting to **₦165 billion**, as highlighted in a 2022 probe by the Nigerian Senate. These cases underscore the critical need to examine the role of audit quality in detecting irregularities and ensuring accountability in MDAs.

Given the prevalence of financial misconduct in Nigeria's public sector and the limitations in the existing audit processes, this study seeks to

evaluate the effect of audit quality specifically audit independence, auditor expertise, and audit committee effectiveness on the detection of irregularities in MDAs. By providing empirical evidence on the relationship between audit quality and financial integrity in government institutions, this research aims to contribute to policy reforms that enhance transparency, strengthen audit independence, and improve financial accountability in Nigeria's public sector.

Premised on the above problem, this study provided answers to the following research questions.

- i. What is the relationship between audit independence and detection of irregularities in MDAs in Nigeria?
- ii. To what extent does auditor expertise in public sector influence the detection of irregularities in MDAs in Nigeria?

## LITERATURE REVIEW

### Detection of Irregularities

Albrecht et al. (2012) defined the detection of irregularities as the ability to uncover fraudulent activities and financial misconduct through systematic audit procedures and forensic techniques. Their study emphasized that effective detection requires a combination of internal controls, external audits, and whistleblower mechanisms to identify discrepancies in financial records. According to Singleton et al. (2006), the detection of irregularities referred to the identification of errors, fraud, and inconsistencies in financial statements through investigative auditing and risk assessment procedures. Their study highlighted that auditors play a crucial role in detecting financial anomalies by employing advanced data analytics and fraud detection models. They also noted that the effectiveness of irregularity detection depends on the independence and expertise of auditors.

### Audit Quality

Audit quality has been defined by various

scholars based on different perspectives, including adherence to auditing standards, auditor independence, and the reliability of financial reporting. DeAngelo (1981) described audit quality as the probability that an auditor will both discover and report a material misstatement in a client's financial statements, emphasizing the role of auditor competence and independence. Francis (2004) viewed audit quality as the extent to which an audit reduces information asymmetry between management and stakeholders by ensuring financial statements are free from material misstatements. Knechel et al. (2013) further explained audit quality as the ability of an auditor to provide assurance that financial statements faithfully represent a firm's financial position and performance. Additionally, Titman and Trueman (1986) suggested that audit quality is determined by the auditor's reputation, as high-quality auditors are more likely to detect and report irregularities. These definitions highlight that audit quality is critical for ensuring the credibility and accuracy of financial reporting.

### **Audit Independence**

Mautz and Sharaf (1961) defined audit independence as the professional auditor's ability to maintain an unbiased and impartial stance in conducting audits. They emphasized that independence is fundamental to ensuring credibility and reliability in financial reporting. Similarly, DeAngelo (1981) described audit independence as the likelihood that an auditor will report a discovered financial irregularity, highlighting that auditor independence is crucial in preventing managerial influence over financial disclosures.

Audit independence directly influences the detection of irregularities in public companies by ensuring auditors remain objective in evaluating financial statements. When auditors maintain independence, they are more likely to detect financial misstatements, fraud, and regulatory violations (Nelson, Elliott, & Tarpley, 2002). For example, auditors who are free from client influence can effectively assess risk factors,

employ forensic accounting techniques, and challenge misleading financial reporting practices, which strengthens corporate transparency.

### **Auditor Expertise Specialization in the Public Sector**

Lowensohn et al. (2007) defined auditor expertise specialization as the extent to which auditors developed proficiency in auditing public sector organizations, emphasizing that specialized auditors were more effective in identifying financial misstatements and non-compliance. Their study suggested that auditors with sector-specific knowledge were better equipped to understand regulatory frameworks, complex government accounting systems, and risks unique to public institutions.

Copley (1991) described auditor expertise specialization as the ability of auditors to apply their technical competence and industry-specific knowledge to evaluate financial reports in the public sector accurately. He argued that auditors who specialized in public sector audits possessed a deeper understanding of governmental accounting standards, financial regulations, and internal control mechanisms, which enhanced their ability to detect financial irregularities. Similarly, Deis and Giroux (1992) noted that audit firms with extensive experience in public sector audits delivered higher-quality audits, as their familiarity with government financial processes enabled them to identify discrepancies more effectively.

### **Empirical Review**

Okoye, et al. (2023) investigated the effect of audit fees and auditors' independence on financial statement fraud among listed non-financial firms in Nigeria from 2011 to 2022. Utilizing an ex-post facto research design, they applied the Beneish M-score model to detect the likelihood of financial statement fraud. The study revealed that neither audit fees nor auditor independence had a significant effect on financial statement fraud, indicating that these factors might not be strong deterrents against fraudulent financial reporting in the Nigerian

context. Though, the study by Okoye, et al. (2023), though insightful, focuses solely on listed non-financial firms, potentially limiting the generalizability of its findings across other sectors like banking or oil and gas. The period covered (2011–2022) is extensive, yet it spans major regulatory and economic shifts which could confound results if not adequately controlled. A sector-specific or segmented analysis might have yielded more nuanced insights.

Agbaje et al. (2021) examined the effect of auditor independence on the financial reporting quality of Nigerian deposit money banks from 2013 to 2018. The study utilized audit fee, audit firm size, and audit meetings as proxies for auditor independence, with financial reporting quality as the dependent variable. Data from ten selected banks were analyzed using panel regression techniques. Results showed that audit fee, audit meetings, and debt ratio had a positive but insignificant impact on financial reporting quality, while audit firm size had a negative and insignificant effect. Thus, the study by Agbaje et al. (2021) focused on Nigerian deposit money banks is a critical sector for financial integrity may have limited its broader applicability by not including other high-risk sectors such as insurance or microfinance institutions, where financial reporting irregularities can also be prevalent. Additionally, restricting the sample to only ten banks may not fully capture the diversity in audit practices and governance structures within the banking sector, possibly affecting the robustness of the findings.

Odin and Oziegbe (2020) investigated the effects of auditors' independence, audit tenure, and firm characteristics on audit quality among ten listed pharmaceutical companies in Nigeria from 2013 to 2019. Using panel regression techniques, the study found that auditors' independence and audit tenure positively and significantly affected audit quality. The authors recommended that audit firms maintain independence and limit auditor-client engagements to three years to avoid familiarity threats. The study by Odin and Oziegbe (2020) makes a valuable contribution by focusing on the pharmaceutical sector, which is often overlooked in audit research. However, limiting the scope to only ten listed companies

may reduce the generalizability of the findings across other sectors with different regulatory and operational complexities. Additionally, while the 2013–2019 period captures pre-COVID dynamics, it omits the audit challenges and governance disruptions introduced by the pandemic, which could have offered deeper insights into auditor independence under stress conditions.

Nguyen and Tran (2020) focused on Vietnam's public sector, investigating whether auditors with public sector experience detect fraud more effectively. The study covered 2011–2019, using a cross-sectional design. Independent variables included auditor specialization and audit tenure, with fraudulent activity detected as the dependent variable. Data was collected from secondary sources such as government audit reports. Panel regression analysis revealed that specialized auditors were more effective at detecting fraud in public sector contracts, particularly in high-risk areas. Therefore, Nguyen and Tran's (2020) study offers an important contribution to understanding the role of auditor specialization in fraud detection in Vietnam's public sector. However, the cross-sectional design limits the ability to draw causal inferences, as it captures data at a single point in time. Additionally, while the study uses government audit reports, relying solely on these secondary sources could introduce reporting bias or overlook cases that were not officially documented. The study's focus on high-risk areas is valuable but may not fully reflect the broader public sector, potentially limiting the generalizability of the findings to less scrutinized areas. Moreover, panel regression could benefit from controlling for other contextual variables like political or regulatory factors that may influence fraud detection outcomes.

Arum and Wahyudi (2020) studied the effect of ethical principles and professionalism on audit quality and its implication on fraud detection. The study was conducted on 30 auditors at the Inspectorate of Jambi Province by distributing questionnaires and analysed using Partial Least Square (PLS) to obtain an effective audit quality model in detecting fraud. The results showed that audit quality, which is determined by the ethics and professionalism of auditors, has an effect on

fraud detection. Furthermore, audit quality is a mediator of ethics and auditor professionalism on fraud detection. Arum and Wahyudi (2020) contribute to the understanding of ethical and professional factors in enhancing audit quality and fraud detection; however, the small sample size (30 auditors) limits the generalizability of the findings. The study relies solely on self-reported data, which may introduce social desirability bias. While the use of PLS is appropriate for modeling complex relationships, the absence of triangulated data or qualitative insights weakens the depth of analysis. The study does not sufficiently account for organizational or regulatory influences that could impact ethical behavior. Additionally, the mediation role of audit quality, though supported, would benefit from further validation across broader contexts. Overall, the findings are insightful but methodologically constrained.

### Theoretical Framework

This study is anchored primarily on Agency Theory, supported by Institutional Theory, Resource Dependency Theory, and Fraud Triangle Theory. These theories provide complementary explanations of the relationship between audit quality and the detection of irregularities in Nigerian Ministries, Departments and Agencies (MDAs).

### Agency Theory

Agency Theory, developed by Jensen and Meckling (1976), explains the relationship between principals and agents where agents may pursue interests that differ from those of the principals. In Nigerian MDAs, the government and citizens represent the principals, while public officials and administrators act as agents entrusted with public resources. Information asymmetry and differences in interests can create opportunities for mismanagement, fraud, corruption, and financial misreporting. Consequently, effective auditing serves as a monitoring mechanism for reducing agency costs and promoting accountability.

The theory is particularly relevant to audit quality because auditor independence, professional competence, and effective oversight can reduce opportunistic behaviour and improve the detection of financial irregularities. Previous studies cited in the study, including Nuhu and Mohammed (2019) and Saeed and Akhtar (2018), support the view that independent and professionally competent audits can reduce agency problems and improve accountability.

However, Agency Theory has been criticized for emphasizing economic self-interest while giving insufficient attention to political, social, cultural, and institutional influences on public-sector behaviour. In Nigeria, political interference and patronage may limit auditor independence and weaken the implementation of audit recommendations. Despite these limitations, Agency Theory remains the most directly relevant framework because it explains why auditing is required as a monitoring mechanism to address conflicts between public officials and those whose resources they manage.

### Institutional Theory

Institutional Theory, associated with Meyer and Rowan (1977) and DiMaggio and Powell (1983), explains how organizations are influenced by formal rules, professional norms, regulatory requirements, and societal expectations. In Nigerian MDAs, audit structures may be adopted because of legislative requirements, regulatory pressures, professional standards, or expectations from external stakeholders. The theory is therefore useful in explaining why organizations may establish audit committees and internal control structures without necessarily achieving effective implementation.

The concept of institutional decoupling is particularly relevant because formal compliance with audit requirements may exist alongside weak practical enforcement. Thus, Institutional Theory complements Agency Theory by demonstrating that the effectiveness of audit quality depends not only on monitoring arrangements but also on the institutional environment within which auditing takes place.

## Resource Dependency Theory

Resource Dependency Theory (RDT), developed by Pfeffer and Salancik (1978), argues that organizations depend on external resources, expertise, legitimacy, information, and institutional support for survival and effective performance. In Nigerian MDAs, audit committees and related governance structures may be influenced by relationships with regulatory institutions, funding bodies, development partners, and anti-corruption agencies.

The theory highlights the importance of external expertise, professional networks, and institutional relationships in strengthening governance and audit effectiveness. Nevertheless, RDT has been criticized for placing excessive emphasis on external dependencies while paying comparatively less attention to internal organizational capabilities and decision-making processes. Its contribution to this study therefore lies mainly in explaining the external institutional and resource conditions that influence audit structures and practices.

## Fraud Triangle Theory

Fraud Triangle Theory, developed by Cressey (1953), explains fraudulent behaviour through three conditions: pressure, opportunity, and rationalization. Pressure represents the motivation to commit fraud, opportunity arises where weak controls or inadequate oversight make fraudulent activities possible, while rationalization enables individuals to justify their unethical conduct.

The theory is relevant to the study because weaknesses in internal controls and audit oversight can create opportunities for financial irregularities within MDAs. High-quality audits can reduce such opportunities through effective examination, independent verification, and timely identification of suspicious transactions. However, the theory has been criticized for concentrating primarily on individual behaviour while giving insufficient attention to organizational culture, collusion, and institutionalized forms of fraud.

Although the four theories provide

complementary perspectives, Agency Theory is adopted as the principal theoretical foundation of the study. It offers the most direct explanation of why audit quality is necessary in Nigerian MDAs. The theory establishes that public officials, acting as agents, may not always act in the best interests of the government and citizens, who are the principals. Independent, competent, and effective auditing therefore provides a mechanism for reducing information asymmetry, monitoring agents, promoting accountability, and detecting financial irregularities.

## METHODOLOGY

The study adopted an **explanatory research design** to examine the causal relationships between Audit Independence and Auditor Expertise (exogenous constructs) and Detection of Irregularities (endogenous construct). The design was considered appropriate because it enables the study to explain how changes in audit quality dimensions influence the detection of irregularities. The population comprised internal audit staff, audit committee members, senior management and financial officers, and risk management and compliance personnel of the Nigerian Social Insurance Trust Fund (NSITF) and Nigerian Ports Authority (NPA) in Lagos and Abuja. Due to the unavailability of a definitive population frame, Cochran's (1977) formula was used to determine the minimum sample size of 385 respondents. This was increased to **500 respondents** to accommodate possible non-response. A multistage sampling procedure involving quota and purposive sampling was used to select respondents across the four study locations.

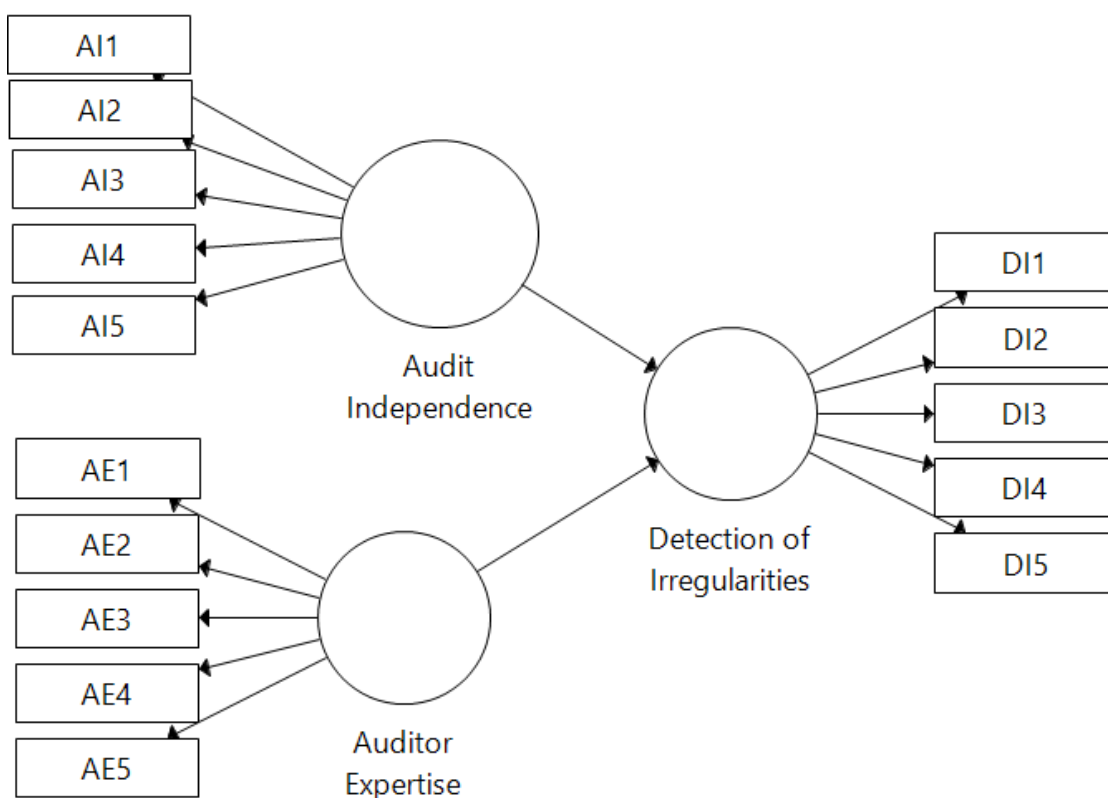
Primary data were collected using a structured **closed-ended questionnaire** based on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The Audit Independence and Auditor Expertise measures were adapted from DeAngelo (1986) and Carcello and Neal (2000), respectively, while the Detection of Irregularities scale was self-developed. Each construct was measured using five items. Questionnaires were administered through both physical drop-off/pick-up and

electronic methods over a one-month period, with the assistance of three research assistants.

The validity of the instrument was established through **content and face validity**. Experienced researchers and the thesis supervisor reviewed the instrument for relevance, clarity, comprehensiveness, and alignment with the study objectives. A pretest involving 45 respondents from the Federal Inland Revenue Service (FIRS), Abuja, was conducted to assess clarity and internal consistency. Reliability was evaluated using Cronbach's Alpha. The coefficients were **0.869 for Audit Independence, 0.915 for Auditor Expertise, and 0.872 for Detection of Irregularities**, all exceeding the conventional 0.70 threshold and indicating satisfactory internal consistency.

Data were analysed using **Partial Least Squares Structural Equation Modelling (PLS-SEM)**. The analysis involved assessment of both the measurement and structural models. The measurement model was evaluated using factor loadings, Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity. The structural model was assessed using path coefficients, bootstrapping, coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ). In addition, PLS-Predict was employed to assess the model's out-of-sample predictive capability using measures including RMSE and MAE. PLS-SEM was considered appropriate because of its capacity to analyse complex relationships among latent constructs and accommodate relatively small samples and non-normal data.

**Figure 1: Specified Path Model for the Study**



**Note.** Extracted from SmartPLS Output.

The study analysis was carried out using the SmartPLS statistical software (version 3).

Table 1 contains a description of model constructs used in the study. All model constructs were ordinal in nature, as measured by the 5-point Likert scale adopted.

**Table 1: Variable Description and Measurement**

| Construct                   | Designator | Description                                                                                                                                                                                                                                                                                                                                                                                                                     | Type    |
|-----------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Audit Independence          | AI         | Measures the extent to which auditors can perform their duties objectively and without undue influence from management or other stakeholders                                                                                                                                                                                                                                                                                    | Ordinal |
|                             |            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |
| Auditor Expertise           | AE         | Measures level of knowledge, skills, and experience possessed by an auditor, particularly in understanding industry-specific regulations, financial reporting standards, and risk assessment procedures.                                                                                                                                                                                                                        | Ordinal |
|                             |            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |
| Detection of Irregularities | DI         | Measures the ability of the audit process to identify misstatements, errors, fraud, or non-compliance in financial records and reporting. It reflects the effectiveness of audit procedures in uncovering financial irregularities that could impact the integrity and reliability of financial statements. Factors such as audit independence and auditor expertise influence the extent to which irregularities are detected. | Ordinal |

**Note. Researcher's Compilation.**

## RESULT AND DISCUSSION

**Table 1: Indicator Loading Statistics**

|                           | Loading | Loading <sup>2</sup> | STDEV | t       | p Value |
|---------------------------|---------|----------------------|-------|---------|---------|
| AE2 <- Auditor Expertise  | 0.871   | 0.870                | 0.011 | 80.164  | 0.000   |
| AE3 <- Auditor Expertise  | 0.886   | 0.886                | 0.009 | 96.028  | 0.000   |
| AE4 <- Auditor Expertise  | 0.884   | 0.884                | 0.010 | 86.886  | 0.000   |
| AE5 <- Auditor Expertise  | 0.883   | 0.882                | 0.010 | 89.826  | 0.000   |
| AI1 <- Audit Independence | 0.880   | 0.881                | 0.008 | 116.131 | 0.000   |
| AI2 <- Audit Independence | 0.906   | 0.905                | 0.010 | 91.875  | 0.000   |
| AI3 <- Audit Independence | 0.785   | 0.783                | 0.027 | 29.384  | 0.000   |
| AI4 <- Audit Independence | 0.770   | 0.768                | 0.028 | 27.854  | 0.000   |

|                                    |       |       |       |         |       |
|------------------------------------|-------|-------|-------|---------|-------|
| AI5 <- Audit Independence          | 0.740 | 0.738 | 0.030 | 24.494  | 0.000 |
| DI1 <- Detection of Irregularities | 0.793 | 0.793 | 0.019 | 42.673  | 0.000 |
| DI3 <- Detection of Irregularities | 0.912 | 0.912 | 0.008 | 121.488 | 0.000 |
| DI4 <- Detection of Irregularities | 0.818 | 0.817 | 0.024 | 34.442  | 0.000 |

**Note. SmatPLS Output.**

Retained indicators were those that conformed to the criteria listed above. Therefore, factors AE1, DI2 and DI5 were deleted from the measurement model. All indicators that were retained had satisfactory p and t values and were determined to be effective measures of their underlying constructs. Indicator reliability was, thus, confirmed for the measurement model.

Internal consistency, as an important component

of measurement model reliability was determined with Cronbach's Alpha and Composite Reliability (CR). Reliability results for internal consistency are contained in Table 8. Satisfactory alpha and CR values were obtained for all constructs given that, in all cases, these values were higher than 0.7, indicating that scale factors provided effective measurements for their underlying construct.

**Table 2: Cronbach's Alpha, Composite Reliability and Average Variance Extracted**

|                             | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|-----------------------------|------------------|-------|-----------------------|----------------------------------|
| Audit Independence          | 0.879            | 0.939 | 0.910                 | 0.670                            |
| Auditor Expertise           | 0.904            | 0.906 | 0.933                 | 0.776                            |
| Detection of Irregularities | 0.796            | 0.821 | 0.880                 | 0.710                            |

**Note. SmatPLS Output.**

In addition to reliability, the measurement model was also assessed in terms of validity. Two types of validity were tested – convergent and divergent. The former was achieved with the use of Average Variance Extracted (AVE) values. As recommended by Hair et al. (2022), AVE should be at, or more than 0.5 for a construct to be considered valid. As obtained values surpassed this threshold, convergent validity was confirmed for all constructs.

Divergent validity was measured using the Heterotrait-Monotrait Ratio (HTMT). The measure was used to indicate the uniqueness of model indicators in measuring their intended constructs. The study used the conservative 0.85 threshold, as suggested by Dzin and Lay (2021). HTMT values were, thus, to be lower than this figure to indicate the presence of divergent validity. Computed HTMT values, shown in Table 9, indicated that divergent validity was confirmed for all constructs.

**Table 3: Heterotrait-Monotrait Ratio (HTMT)**

|                             | Audit Independence | Auditor Expertise |
|-----------------------------|--------------------|-------------------|
| Auditor Expertise           | 0.482              |                   |
| Detection of Irregularities | 0.728              | 0.654             |

**Note. SmatPLS Output.**

Following the confirmation of the accuracy of the measurement model, the structural model was evaluated. An essential aspect of this was a check for multicollinearity, which could lead to inaccurate results. As indicated in Table 10, the

absence of multicollinearity was confirmed by low Variance Inflation (VIF) values for all constructs, given that in all cases, these values were less than 3.

**Table 4: Variance Inflation Factor (VIF) Inner Model**

|                    | Detection of Irregularities |
|--------------------|-----------------------------|
| Audit Independence | 1.257                       |
| Auditor Expertise  | 1.257                       |

**Note. SmatPLS Output.**

The estimated path model of the study is illustrated in Figure 2, the procedure of which was carried out via a bootstrapping process involving 10,000 subsamples. The figure shows

path coefficients indicating the effects of the exogenous constructs of Audit Independence and Auditor Expertise on the endogenous construct of Detection of Irregularities.

**Figure 2: Estimated Path Model for the Study****Note. SmatPLS Output.**

In-sample predictive power was also determined for the structural model in indicating the level to which exogenous constructs explain variations in the endogenous construct. The computed adjusted  $R^2$  value of 0.674, reported in Table 11, indicated that about 67% of variations in the

level of Detection of Irregularities was attributable to the exogenous constructs. The remaining 33% being caused by other factors not included in the model. The high  $R^2$  value indicated a high explanatory power of the estimated model.

**Table 5: In-Sample Predictive Power of the Estimated Model**

|                             | R Square | R Square Adjusted |
|-----------------------------|----------|-------------------|
| Detection of Irregularities | 0.533    | 0.531             |

**Note. SmatPLS Output.**

Estimated path coefficients are provided in Table 12, along with the corresponding t and p values. All path relationships were found to be positively signed, which aligns with a priori expectations. This consistency in the sign of the coefficients

suggests that the hypothesised relationships among the variables were supported by the data, reinforcing the theoretical framework underpinning the study.

**Table 6: Estimated Path Coefficients**

|                                                   | $\beta$ | Mean  | Std. Dev. | t      | P Value |
|---------------------------------------------------|---------|-------|-----------|--------|---------|
| Audit Independence -> Detection of Irregularities | 0.504   | 0.505 | 0.041     | 12.407 | 0.000   |
| Auditor Expertise -> Detection of Irregularities  | 0.347   | 0.347 | 0.043     | 8.098  | 0.000   |

**Note. Smart PLS Output.**

## Hypotheses

**H<sub>01</sub>:** Audit independence does not have significant effect on irregularities in MDAs in Nigeria

Audit independence had a positive and significant effect on the detection of irregularities, with a path coefficient of  $\beta = 0.326$  and a corresponding t-value of 8.906. This result suggested that the more auditors were able to operate without undue interference from management, and the more transparent the audit environment was, the more effectively irregularities were detected. The relatively

strong t-value (8.906) further indicated that this relationship was highly reliable across the sample. Based on this, the null hypothesis was not accepted.

**H<sub>02</sub>:** Auditor expertise in the public sector does not have significant effect on irregularities in MDAs in Nigeria.

Auditor expertise also demonstrated a significant positive effect on irregularity detection, with a coefficient of  $\beta = 0.267$  ( $p < 0.05$ ) and a t-value of 7.564. Although slightly weaker than audit independence, this still represented a substantive contribution to detection outcomes. This

provided sufficient empirical evidence preventing the acceptance of the null hypothesis in this case.

## DISCUSSION

From the analysis carried out, all components of audit quality were found to be statistically significant in their effect on the detection of irregularities. Firstly, the positive and significant effect of audit independence on the detection of irregularities in the MDAs implies that when auditors operate without interference from management and when formal safeguards are in place to preserve professional autonomy, the likelihood of identifying discrepancies, misstatements, or improper financial practices increases. The result aligned strongly with established literature which have consistently argued in favour of independence as a core prerequisite for credible and effective audit outcomes. Studies such as those by Okoye, et al. (2023), Agbaje et al. (2021), and Odin and Oziegbe (2020) emphasise that independent auditors are better positioned to exercise objective judgement and to scrutinise financial information without compromise. This is especially important in the Nigerian context, where public financial management systems have historically struggled with issues of weak oversight and inconsistent accountability, the significance of independence illustrates that internal audit units performed better when granted operational autonomy.

Secondly, auditor expertise also demonstrated a positive and statistically significant relationship with the detection of irregularities. This finding confirmed that auditors' technical competence, practical experience, and familiarity with contemporary auditing standards play an essential role in identifying discrepancies and uncovering potential fraud. This connection is supported by existing pertinent studies such as those by Syamsuri et al. (2023), Barrera and Tovar (2022), Guthrie and Farnsworth (2021), and Okoye and Ogbodo (2021). This finding suggested that in MDAs, the presence of qualified, professionally trained auditors improved detection outcomes because such individuals possessed the analytical capability to

interrogate complex transactions and apply judgment in areas of uncertainty.

## Conclusion

The findings demonstrated that all dimensions had a positive and significant effect on the detection of irregularities. Audit independence was shown to enhance auditors' ability to operate without undue influence, thereby enabling objective evaluation of financial records. Additionally, auditor expertise contributed positively to irregularity detection, highlighting the importance of technical competence, professional training, and the application of sound judgement in auditing processes.

## Recommendations

The following recommendations were put forward based on the study's findings.

- i. MDAs should strengthen auditor independence by instituting clear reporting lines that separate audit functions from management influence. Policies should explicitly protect auditors' professional judgement and ensure transparency in the audit process.
- ii. MDAs should prioritise the continuous development of auditor expertise by implementing structured training programmes, sponsoring professional certifications, and providing access to contemporary auditing tools and technologies. Regular workshops and refresher courses should be institutionalised to maintain up-to-date knowledge of auditing standards and emerging risk areas. Enhancing auditors' technical competence and professional judgment will directly strengthen their capacity to detect irregularities effectively.

## Contribution to Knowledge

This study contributes empirical evidence on how audit quality enhances the detection of financial irregularities in Ministries,

Departments, and Agencies (MDAs) in Nigeria. It highlights the critical role of auditor competence, independence, and rigorous audit processes in strengthening public sector accountability and transparency. The study also provides a framework for policymakers and oversight institutions to improve audit practices and reduce financial mismanagement in the public sector.

## REFERENCES

- Abbott, L. J., Parker, S., & Peters, G. F. (2016). Audit committee characteristics and financial reporting quality: A review of the empirical literature. *Journal of Accounting Literature*, 36, 1–24.
- Adeyemi, S. B., & Okpala, O. (2011). The impact of audit independence on financial reporting: Evidence from Nigeria. *Business and Management Review*, 1(4), 9–25.
- Agbaje, A. G., Sadiq, R., Adesoji, O., & Oyindamola, S. A. (2021). Effect of auditors' independence on financial reporting quality of Nigerian deposit money banks. *Financial Internet Quarterly*, 17(2), 59–65. <https://doi.org/10.2478/fiqf-2021-0014>
- Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2012). *Fraud examination* (4th ed.). South-Western Cengage Learning.
- Arum, E. D. P., & Wahyudi, I. (2021). Audit quality and fraud detection: Evidence of the internal auditor of Jambi Province. In *Proceedings of the Sixth Padang International Conference on Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2020)* (pp. 329–335). Atlantis Press. <https://doi.org/10.2991/aebmr.k.210616.002>
- Carcello, J. V., & Neal, T. L. (2000). Audit committee composition and auditor reporting. *The Accounting Review*, 75(4), 453–467. <https://doi.org/10.2308/accr.2000.75.4.453>
- Chan, K., & Houghton, K. (2020). Audit quality and public sector accountability. *International Journal of Public Sector Management*.
- Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.
- Copley, P. A. (1991). The association between municipal disclosure practices and audit quality. *Journal of Accounting and Public Policy*, 10(4), 245–266. [https://doi.org/10.1016/0278-4254\(91\)90001-Z](https://doi.org/10.1016/0278-4254(91)90001-Z)
- Cressey, D. R. (1953). *Other people's money: A study in the social psychology of embezzlement*. Free Press.
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183–199. [https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1)
- Deis, D. R., Jr., & Giroux, G. A. (1992). Determinants of audit quality in the public sector. *The Accounting Review*, 67(3), 462–479.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Dzin, N. H. M., & Lay, Y. F. (2021). Validity and reliability of the measurement model in PLS-SEM. *International Journal of Academic Research in Business and Social Sciences*.
- Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, 36(4), 345–368. <https://doi.org/10.1016/j.bar.2004.09.003>
- Gul, F. A., Fung, S. Y. K., & Jaggi, B. (2013). Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics*, 56(1), 1–17.

- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Knechel, W. R., Krishnan, G. V., Pevzner, M., Shefchik, L. B., & Velury, U. K. (2013). Audit quality: Insights from the academic literature. *Auditing: A Journal of Practice & Theory*, 32(Supplement 1), 385–421. <https://doi.org/10.2308/ajpt-50350>
- Lowensohn, S., Johnson, L. E., Elder, R. J., & Davies, S. P. (2007). Auditor specialization, perceived audit quality, and audit fees in the local government audit market. *Journal of Accounting and Public Policy*, 26(6), 705–732. <https://doi.org/10.1016/j.jaccpubpol.2007.10.004>
- Mautz, R. K., & Sharaf, H. A. (1961). *The philosophy of auditing*. American Accounting Association.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363. <https://doi.org/10.1086/226550>
- Nelson, M. W., Elliott, J. A., & Tarpley, R. L. (2002). Evidence from auditors about managers' and auditors' earnings management decisions. *The Accounting Review*, 77(Supplement), 175–202.
- Odin, R., & Oziegbe, D. J. (2022). Auditors' independence, audit tenureship, firm characteristics and audit quality: Evidence from Nigeria. *Romanian Economic Journal*, 25(84), 54–68.
- Okaro, S. C., & Okafor, G. O. (2013). Audit market concentration in Nigeria: An empirical study. *Accounting Frontier*, 4(2), 264–276.
- Okaro, S. C., & Okafor, G. O. (2013). Drivers of audit failure in Nigeria: Evidence from Cadbury (Nigeria) Plc. *Research Journal of Finance and Accounting*, 4(6), 14–17.
- Okoye, E. I., Ogbodo, U. K., & Adeniyi, S. I. (2023). Effect of audit fees and auditors' independence on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group. *African Banking and Finance Review Journal*, 7(7).
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper & Row.
- Rahim, S., Ahmad, H., Widya, A., Wahyuni, N., & Junaidi, J. (2023). Auditors' experience in financial statement fraud detection: The role of professional scepticism and idealism. *Management & Accounting Review*, 22(3), 202–222. <https://doi.org/10.24191/MAR.V22i03-08>
- Riadi, S., Nurrahmadini, E. P., Wijayani, D. I. L., & Harlan, F. B. (2025). Fraud detection unveiled: How audit quality shapes auditors' detection capabilities? *International Review of Management and Marketing*, 15(2), 254–261. <https://doi.org/10.32479/irmm.18188>
- Saeed, A., & Akhtar, M. (2018). Audit independence, audit quality and accountability in public sector organizations. *International Journal of Accounting and Financial Reporting*.
- Salawu, R. O. (2017). Public sector accounting and financial accountability in Nigeria. *Journal of Accounting and Taxation*.
- Singleton, T. W., Singleton, A. J., Bologna, G. J., & Lindquist, R. J. (2006). *Fraud auditing and forensic accounting* (3rd ed.). John Wiley & Sons.
- Syamsuri Rahim, Ahmad, H., Widya, A., Wahyuni, N., & Junaidi, J. (2023). Auditors' experience in financial

statement fraud detection: The role of professional scepticism and idealism. *Management & Accounting Review*, 22(3), 202–222. <https://doi.org/10.24191/MAR.V22i03-08>

Titman, S., & Trueman, B. (1986). Information quality and the valuation of new issues. *Journal of Accounting and Economics*, 8(2), 159–172. [https://doi.org/10.1016/0165-4101\(86\)90016-9](https://doi.org/10.1016/0165-4101(86)90016-9)

Tiwari, R. K., & Debnath, J. (2023). Fraud detection by external auditors: A systematic review of experimental evidence. *Journal of Financial Reporting and Accounting*.

Umar, M., et al. (2019). Audit quality, accountability and public sector financial management in Nigeria. *[Publication details require verification]*.

Uwuigbe, U., & Olayinka, M. (2020). Audit quality, financial reporting and corporate governance in Nigeria. *[Publication details require verification]*.