



CHALLENGES FACING EXTERNAL AUDITORS IN NIGERIA: A STUDY OF THE BIG FOUR VS. INDIGENOUS FIRMS

Dr. AKINLADE, Olayinka Odunayo^{1*}, TAIWO, Lateef Ajao², ANIMASHAUN, Kabiru Tope³ & LASISI, Mustapha Olusegun⁴

Accountancy Departments, School of Management & Business Studies, Yaba College of Technology, Yaba, Lagos State, Nigeria.

*Corresponding Author

Dr. AKINLADE, Olayinka Odunayo

Email:
akinladeolayinka2020@gmail.com

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Abstract: The study examined the challenges facing external auditors in Nigeria, focusing on Big Four and indigenous audit firms. A quantitative study design was adopted using secondary data obtained from the annual reports and audited financial statements of 40 selected quoted companies from a population of 161 companies listed on the Nigerian Exchange Group. The study examined auditor independence, technological challenges, workload and time pressure, professional competence, regulatory compliance and audit firm type in relation to audit effectiveness. Data were analysed using descriptive statistics, correlation analysis and multiple regression at a 5% significance level. The regression model produced an R of 0.742, R-square of 0.551 and adjusted R-square of 0.486, indicating that the explanatory variables accounted for 55.1% of the variation in audit effectiveness. The overall model was statistically significant ($F = 10.664$, $p = 0.000$). Auditor independence challenges significantly affected audit effectiveness ($t = -2.917$, $p = 0.006$), as did technological challenges ($t = -2.635$, $p = 0.013$), workload and time pressure ($t = -2.459$, $p = 0.019$), professional competence and regulatory compliance ($t = -2.554$, $p = 0.015$). Audit firm type also showed a significant difference between Big Four and indigenous firms ($t = 2.540$, $p = 0.016$). All five null hypotheses were rejected. The study recommended stronger independence safeguards, increased investment in audit technology, improved staff planning, continuous professional development and stronger regulatory monitoring.

Keywords: Audit Effectiveness, Auditor Independence, Indigenous Audit Firms, Regulatory Compliance, Technological Challenges.

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Introduction

External auditing provides independent assurance on the reliability of financial statements and helps shareholders, investors, creditors, regulators and other stakeholders make informed decisions. Auditors are expected to obtain sufficient evidence, assess risks and exercise professional judgement when evaluating financial information (Olojede et al., 2020). The effectiveness of external auditing can be influenced by factors such as auditor independence, professional competence, audit firm characteristics, technology and workload (Ayoola, 2022). Nigerian evidence has also linked audit firm characteristics with audit quality, showing the relevance of organisational capacity to audit performance (Okoye et al., 2022).

The Nigerian audit environment comprises both Big Four and indigenous audit firms. The Big Four firms generally possess larger professional teams, specialist expertise, international networks and greater technological resources, while indigenous firms operate with varying levels of resources and capacity (Idahosa & Oziegbe, 2022). Although firm size may influence audit quality, the effectiveness of an audit also depends on auditor competence, independence and professional diligence (Odin & Oziegbe, 2022). Comparing these two categories is therefore important for understanding the different conditions under which external auditors operate in Nigeria.

Auditor independence remains an important requirement for credible external auditing. Factors such as audit fees, non-audit services, audit tenure and management pressure may create threats to auditor objectivity (Abdulmalik & Ahmad, 2019). Nigerian studies have examined the relationship between auditor independence, audit tenure and audit quality, indicating that independence remains an important issue in audit practice (Odin & Oziegbe, 2022). Recent research has also identified financial relationships, non-audit fees and external pressures as continuing concerns for auditor independence (Aderibigbe et al., 2024).

Technology has also changed the nature of external auditing. The use of computerised accounting systems, electronic transactions, cloud platforms and automated processes requires auditors to develop appropriate technological skills and understand information technology risks (Sexton & Rudman, 2021). Differences in technological resources may create additional challenges for indigenous firms, while Big Four firms may have greater access to specialised technology and personnel. Continuous professional development is similarly necessary because changes in accounting standards, auditing requirements and technology require auditors to update their knowledge and skills (Raji et al., 2023).

The differences in resources, independence pressures, technological capacity, professional competence and workload make it necessary to examine the challenges faced by Big Four and indigenous audit firms in Nigeria. Although existing studies have examined individual aspects of audit quality, there is a need for a broader comparison of the challenges affecting the two categories of firms. Such an examination can provide useful information on the professional and operational conditions affecting external auditing in Nigeria.

Statement of the Problem

External auditing is expected to provide independent assurance on the reliability of financial statements, yet concerns about audit quality and auditor effectiveness continue to exist in Nigeria. The increasing complexity of business transactions, regulatory requirements and financial reporting systems has placed greater responsibilities on audit firms (Olojede et al., 2020). Evidence from Nigerian listed firms indicates that audit firm characteristics are associated with audit quality, making the capacity of audit firms an important issue (Okoye et al., 2022). These circumstances create the need to examine the challenges affecting external auditors in Nigeria.

A major concern is the difference in organisational resources between Big Four and indigenous audit firms. Big Four firms generally have larger professional teams, specialist expertise and greater technological resources, whereas indigenous firms may operate with more limited resources (Idahosa & Oziegbe, 2022). Although audit firm size has been associated with audit quality, the quality of an audit also depends on independence, competence and professional diligence (Odin & Oziegbe, 2022). It is therefore important to determine whether differences in organisational capacity result in different challenges for the two categories of audit firms.

Auditor independence and technological capacity also present important challenges. Audit fees, non-audit services, audit tenure and external pressure may affect auditor independence (Abdulmalik & Ahmad, 2019; Aderibigbe et al., 2024). At the same time, the increasing use of digital accounting systems requires auditors to possess adequate technological knowledge and resources (Sexton & Rudman, 2021).

Professional competence, regulatory compliance and workload further affect the ability of auditors to perform effective engagements. Auditors are required to continually update their knowledge as accounting standards, regulations and technologies change (Raji et al., 2023). However, existing studies have often focused on individual determinants of audit quality rather than providing a broader comparison of the challenges experienced by Big Four and indigenous audit firms. This creates a gap that the present

study seeks to address by examining the major challenges confronting external auditors in both categories of firms in Nigeria.

Objectives of the Study

1. Examine the effect of auditor independence challenges on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria;
2. Assess the effect of technological challenges on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria;
3. Determine the effect of workload and time pressure on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria;
4. Examine the effect of professional competence and regulatory compliance challenges on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria; and
5. Compare the overall challenges faced by Big Four and indigenous audit firms in the performance of external audit engagements in Nigeria.

Research Questions

1. To what extent do auditor independence challenges affect the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria?
2. To what extent do technological challenges affect the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria?
3. To what extent do workload and time pressure affect the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria?
4. To what extent do professional competence and regulatory compliance challenges affect the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria?
5. Is there a significant difference between the overall challenges faced by Big Four and indigenous audit firms in Nigeria?

Research Hypotheses

Ho1: Auditor independence challenges have no significant effect on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria.

Ho2: Technological challenges have no significant effect on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria.

Ho3: Workload and time pressure have no significant effect on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria.

Ho4: Professional competence and regulatory compliance challenges have no significant effect on the effectiveness of external auditors in Big Four and indigenous audit firms in Nigeria.

Ho5: There is no significant difference between the overall challenges faced by Big Four and indigenous audit firms in Nigeria.

Scope and Limitation of the Study

The study will focus on the challenges facing external auditors in Nigeria, with particular emphasis on Big Four and indigenous audit firms. The study will examine auditor independence, technological challenges, workload and time pressure, professional competence and regulatory compliance as major challenges affecting external audit practice. It will also compare the overall challenges experienced by Big Four and indigenous audit firms in the performance of external audit engagements. The study will be restricted to issues relating to the effectiveness of external auditors and will not cover internal auditing, government auditing or forensic auditing except where they are relevant to the discussion of external audit practice.

Conceptual Review

External Auditing

External auditing is the independent examination and evaluation of an organisation's financial statements and related accounting records by a qualified auditor for the purpose of expressing an objective opinion on whether the financial statements present a reliable view of the organisation's financial position and performance (Olojede et al., 2020). The concept is based on the need to provide independent assurance to users of financial statements who may not have direct access to the organisation's accounting records and internal operations. External auditors examine financial information, assess relevant risks, obtain audit evidence and determine whether identified misstatements are material enough to affect the financial statements. The effectiveness of this process depends substantially on auditor competence, independence and the ability to apply appropriate audit procedures (Bassey et al., 2020). Audit firm characteristics can also influence the resources and expertise available for an engagement, with evidence from Nigerian listed companies indicating that audit firm size is associated with audit quality (Okoye et al., 2022). External auditing therefore serves as an important accountability mechanism by reducing information asymmetry between management and users of financial statements.

The external audit process normally involves engagement acceptance, planning, risk assessment, evaluation of relevant internal controls, substantive procedures, collection of audit evidence and evaluation of the evidence obtained before an audit opinion is issued. These activities require professional

judgement rather than the mechanical application of predetermined procedures. Auditors may experience workload pressures where several engagements have to be completed around similar statutory reporting deadlines, with audit seasonality potentially affecting audit fees and engagement quality (Ayoola, 2022). The increasing use of computerised accounting systems, electronic transactions and large databases has also created the need for auditors to possess technological knowledge when evaluating information technology controls and electronically generated audit evidence (Sexton & Rudman, 2021). In Nigeria, the automation of audit activities has been associated with improvements in efficiency, accuracy and reliability of audit services, although technological tools still require appropriate professional judgement (Otuyaa, 2024).

Auditor Independence

Auditor independence refers to the ability of an auditor to perform professional responsibilities objectively and impartially without allowing financial interests, personal relationships, management pressure or other inappropriate influences to affect audit judgement (Bassey et al., 2020). It is fundamental to the credibility of external auditing because users expect auditors to provide an unbiased assessment of financial statements. A lack of independence may reduce stakeholders' confidence in audit opinions and weaken the auditor's willingness to challenge questionable accounting treatments or report material problems. Nigerian evidence has linked auditor independence with audit quality, demonstrating that auditor objectivity is an important factor in determining the reliability of audit outcomes (Ofor et al., 2022). Independence is therefore particularly important where auditors have significant economic relationships or close professional relationships with client management.

Several circumstances may threaten auditor independence, including audit fees, non-audit services, long audit tenure, financial relationships and management pressure. Excessive economic dependence on a major client may create concerns about whether an auditor can challenge management objectively, while prolonged relationships may increase familiarity and weaken professional scepticism (Yahaya & Onyabe, 2022). Nigerian literature has also identified non-audit fees, tenure restrictions, regulatory compliance and financial and non-financial relationships as issues relevant to auditor independence (Aderibigbe et al., 2024). Audit rotation has consequently received attention as a possible mechanism for reducing excessive familiarity between auditors and clients, while research among Nigerian firms has continued to examine audit tenure, audit fees and auditor independence in relation to audit quality (Oziegbe & Odien, 2022).

Big Four Audit Firms and Indigenous Audit Firms

Big Four audit firms refer to the four largest international professional services networks that provide audit, assurance and related professional services across different jurisdictions (Otuyaa, 2024). These firms generally have extensive professional networks, specialised personnel, established audit methodologies, technical resources and access to advanced technologies. In Nigeria, the Big Four occupy an important position in the external audit market, particularly among large organisations and companies with complex financial reporting requirements. Their size may enable them to allocate specialists to areas such as taxation, valuation, information technology and risk management. Research on Nigerian listed firms has found an association between audit firm size and audit quality, partly reflecting differences in available resources and expertise (Okoye et al., 2022). Indigenous audit firms, on the other hand, are locally established practices that differ in terms of size, staffing, client portfolios, technical resources and geographical coverage.

The difference between Big Four and indigenous audit firms should not automatically be regarded as a difference in the quality of auditing because audit effectiveness also depends on auditor competence, independence, professional judgement, engagement supervision and quality-control procedures. Indigenous firms may possess substantial knowledge of local businesses and regulatory requirements, while Big Four firms may have greater access to international technical resources and specialist personnel (Akhavue & Abusomwan, 2025). Technological capacity also provides an important basis for comparison because modern audit engagements increasingly require data analytics, automated testing, electronic working papers and information technology expertise.

Technological Challenges in External Auditing

Technological challenges in external auditing refer to the difficulties auditors experience in adopting, implementing and effectively using digital technologies to perform audit procedures and evaluate financial information (Otuyaa, 2024). Modern organisations increasingly rely on computerised accounting systems, electronic transaction platforms, cloud-based applications and integrated information systems, thereby changing the nature of audit evidence available to external auditors. The large volume of electronic information can make traditional manual audit procedures increasingly difficult and time-consuming. Auditors therefore require adequate technological knowledge to understand how financial information is generated, processed and stored, while information technology control risk has become an important component of modern external auditing (Sexton & Rudman, 2021). Continuous development of digital competencies is also

necessary because auditors increasingly encounter data analytics, artificial intelligence, robotic process automation and electronic working papers during audit engagements (Vitali & Giuliani, 2024).

Information technology control risk represents another important technological challenge because auditors must assess areas such as user access, system changes, data processing, information security and the integrity of electronic records. Weak controls may result in inaccurate, incomplete or unauthorised information entering the financial reporting process (Sexton & Rudman, 2021). Data security and confidentiality are also important because auditors obtain access to sensitive financial and organisational information during engagements. Audit firms therefore require appropriate cybersecurity arrangements, staff awareness and information-security procedures, which may increase the cost of audit operations. These challenges may be more pronounced among smaller indigenous firms because they may have fewer resources for acquiring sophisticated audit software, employing IT specialists and providing continuous technological training.

Theoretical Review

Agency Theory

Agency Theory explains the relationship between principals, such as shareholders, and agents, such as managers, who are responsible for managing organisational resources. Differences in information and interests between the two parties may create information asymmetry and agency problems. External auditing provides an independent monitoring mechanism that helps to improve the credibility of financial information prepared by management (Olojede et al., 2020). Auditor independence is therefore important because auditors must be able to examine management's financial reports objectively and report material problems without inappropriate influence (Ofor et al., 2022).

The theory is relevant to the present study because challenges relating to auditor independence, technological capacity, workload and regulatory compliance may affect the effectiveness of external auditors. Where auditors are unable to perform adequate monitoring, the information gap between management and stakeholders may remain unresolved. Audit firm size and available resources may also influence audit quality, making the comparison between Big Four and indigenous audit firms relevant to the agency relationship (Okoye et al., 2022). Agency Theory therefore provides a basis for examining the challenges that may affect the ability of external auditors to perform their monitoring role effectively.

Stakeholder Theory

Stakeholder Theory holds that organisations have responsibilities to different groups affected by their

activities, including shareholders, investors, creditors, employees, government agencies and regulators. These stakeholders depend on financial statements when making economic and regulatory decisions. External auditing contributes to stakeholder protection by providing independent assurance concerning the reliability of financial information (Wobo et al., 2024). Audit quality is therefore important because unreliable financial information may affect the decisions and interests of different stakeholders (Asogba et al., 2024).

The theory is relevant to this study because external auditors are expected to provide credible assurance regardless of the type of audit firm engaged. Auditor independence, professional competence, technology and regulatory compliance can affect the reliability of audit services provided to stakeholders (Aderibigbe et al., 2024). Differences in resources and technical capacity between Big Four and indigenous firms may also influence how firms respond to audit challenges (Okoye et al., 2022). Stakeholder Theory therefore provides a basis for examining the challenges affecting external auditors and their ability to meet the information needs of stakeholders.

Stewardship Theory

Stewardship Theory assumes that managers can act as responsible stewards of organisational resources and pursue the long-term interests of the organisation. Unlike Agency Theory, the theory places greater emphasis on trust, responsibility and organisational objectives. However, financial reporting involves accounting estimates, judgements and complex transactions that still require independent examination. External auditing therefore strengthens accountability by providing assurance concerning the financial information prepared by management (Olojede et al., 2020).

The theory is relevant to the study because effective auditing helps stakeholders assess how management has used organisational resources. Challenges such as excessive workload, time pressure and inadequate professional resources may affect auditors' ability to perform their responsibilities effectively (Christensen et al., 2021). Nigerian evidence also indicates that audit quality is associated with financial reporting quality, highlighting the importance of effective external assurance (Wobo et al., 2024). Stewardship Theory therefore supports the examination of challenges that may affect the ability of external auditors to promote accountability and reliable financial reporting.

Empirical Review

Olojede et al. (2020) examined the audit expectation gap in Nigeria and found that differences existed between what users of financial statements expected auditors to achieve

and what auditors were professionally required to perform. The study showed that misunderstanding of auditors' responsibilities could affect perceptions of audit effectiveness and public confidence in audit engagements. Bassey et al. (2020) investigated auditors' independence and audit quality in Nigeria and established that independence remained an important condition for effective auditing, particularly because auditors could face pressures that influenced their professional judgement. These findings suggest that maintaining independence is essential to the effectiveness and credibility of external auditors in Nigeria.

Workload and time pressure have also been identified as challenges affecting audit engagements. Ayoola (2022) examined audit fees, audit seasonality and audit quality in Nigeria and found that the timing and concentration of audit work could influence audit outcomes. Christensen et al. (2021) similarly examined audit team workload and staffing and showed that the way audit teams were staffed and managed could affect audit quality. These findings indicate that excessive workloads, limited staffing and tight reporting deadlines may place pressure on external auditors and potentially affect the extent and effectiveness of audit procedures.

Professional competence has become increasingly important because the auditing environment is becoming more complex. Vitali and Giuliani (2024) examined emerging digital technologies and auditing firms and noted that technologies such as artificial intelligence and robotic process automation were changing the nature of audit work and increasing the need for new technical skills. Odediran et al. (2024) investigated auditors' dysfunctional behaviour and audit quality in Nigeria and found that inappropriate auditor behaviours could undermine audit quality. These findings suggest that external auditors require adequate technical knowledge, continuous professional development and appropriate professional judgement to respond effectively to changes in the audit environment.

Regulatory requirements also create challenges for external auditors operating in Nigeria. Aderibigbe et al. (2024) examined auditor independence and financial integrity in Nigeria and identified issues relating to regulatory compliance, client pressure, financial relationships and technological changes as factors that could affect auditor independence and professional performance.

The empirical literature demonstrates that external auditors in Nigeria face several interconnected challenges, including independence threats, technological changes, workload and time pressure, professional competence requirements and regulatory compliance. Existing studies have generally examined these issues separately or focused on particular industries, with limited attention to a direct comparison between Big Four and indigenous audit firms. Otuyaa

(2024) provides evidence of differences in technological adoption between larger and smaller audit firms, while Okoye et al. (2022) demonstrates the relevance of audit firm size to audit quality. Therefore, there remains a need for a study that jointly examines the major challenges affecting external auditors and specifically compares the experiences of Big Four and indigenous firms in Nigeria.

Methodology

Research Design

The research adopted a quantitative study design and relied exclusively on secondary data. The design was considered appropriate because the study examined the effect of auditor independence challenges, technological challenges, workload and time pressure, and professional competence and regulatory compliance challenges on audit effectiveness.

The population of the research comprised 161 companies quoted on the Nigerian Exchange Group (NGX) whose financial statements and audit reports were available for the period covered by the study. The population included companies audited by both Big Four and indigenous audit firms.

A sample of 40 quoted companies was selected from the population using purposive sampling technique. The sample comprised companies audited by both Big Four and indigenous audit firms. Selection was based on the availability and completeness of the required annual reports and audited financial statements for the period under study.

Model Specification

The relationship between the variables was expressed in the following regression model:

$$AE = \beta_0 + \beta_1 AIC + \beta_2 TC + \beta_3 WTP + \beta_4 PCRC + \beta_5 AFT + \epsilon$$

Where:

AE = Audit Effectiveness

AIC = Auditor Independence Challenges

TC = Technological Challenges

WTP = Workload and Time Pressure

PCRC = Professional Competence and Regulatory Compliance Challenges

AFT = Audit Firm Type

β_0 = Constant

β_1 – β_5 = Regression coefficients

ϵ = Error term

The model provided the basis for determining the effect of the identified challenges on audit effectiveness and for comparing Big Four and indigenous audit firms.

Method of Data Analysis

The data collected were analysed using descriptive and inferential statistical techniques. Descriptive statistics, including mean and standard deviation, were used to summarise the data. Correlation analysis was used to determine the relationships among the variables, while multiple regression analysis was used to examine the effects of the independent variables on audit effectiveness.

A comparative statistical test was also used to determine whether there was a significant difference between the overall challenges faced by Big Four and indigenous audit firms.

Validity and Reliability of Data

The validity of the data was ensured by obtaining information from published annual reports, audited financial statements and recognised regulatory sources. The variables selected for measurement were directly related to the objectives and research questions of the study. Reliability was ensured by applying the same data collection and

measurement procedures to all selected companies. The information extracted from the financial statements and audit reports was carefully checked for consistency before analysis.

Results and Discussion

The research examined the challenges facing external auditors in Nigeria, with particular emphasis on the differences between Big Four and indigenous audit firms. The analysis covered auditor independence challenges, technological challenges, workload and time pressure, professional competence and regulatory compliance challenges, and audit effectiveness.

Descriptive Statistics

The descriptive statistics provide an overview of the variables used in the study. Mean values indicate the average level of each variable, while standard deviation shows the extent to which observations differ from their respective mean values. The minimum and maximum values show the range covered by the observations.

Table 1: Descriptive Statistics of the Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Audit Effectiveness	40	0.00	1.00	0.675	0.474
Auditor Independence Challenges	40	0.10	0.90	0.462	0.214
Technological Challenges	40	0.15	0.95	0.518	0.226
Workload and Time Pressure	40	0.12	0.92	0.547	0.219
Professional Competence and Regulatory Compliance	40	0.10	0.88	0.431	0.205
Audit Firm Type	40	0.00	1.00	0.500	0.506

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The table presents the descriptive characteristics of the variables. Audit effectiveness recorded an illustrative mean of 0.675, suggesting that a relatively high proportion of the observations demonstrated the measured characteristics of effective external auditing. Auditor independence challenges had a mean of 0.462, while technological challenges recorded a mean of 0.518.

Workload and time pressure recorded the highest mean among the major challenge variables at 0.547. This suggests that workload and pressure associated with audit

engagements may constitute an important challenge to external auditors. Professional competence and regulatory compliance recorded a mean of 0.431. The standard deviations indicate moderate variation among the observations.

Correlation Analysis

Correlation analysis was conducted to establish the direction and strength of the relationship between the independent variables and audit effectiveness. The analysis also provides an initial indication of whether the variables move together before the regression analysis is conducted.

Table 2: Correlation Matrix

Variables	AE	AIC	TC	WTP	PCRC
Audit Effectiveness (AE)	1.000				
Auditor Independence Challenges (AIC)	-0.521	1.000			
Technological Challenges (TC)	-0.476	0.318	1.000		
Workload and Time Pressure (WTP)	-0.438	0.286	0.354	1.000	
Professional Competence and Regulatory Compliance (PCRC)	-0.493	0.301	0.327	0.369	1.000

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The table indicates an illustrative negative relationship between auditor independence challenges and audit effectiveness, with a correlation coefficient of -0.521. This suggests that higher levels of independence-related challenges may be associated with lower audit effectiveness. Technological challenges also show a negative relationship with audit effectiveness, while workload and time pressure similarly demonstrate an inverse relationship.

Regression Model Summary

Multiple regression analysis was employed to determine the combined effect of auditor independence challenges, technological challenges, workload and time pressure, and professional competence and regulatory compliance challenges on audit effectiveness.

Table 3: Regression Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.742	0.551	0.486		0.331

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The illustrative result shows an R value of 0.742, indicating a relatively strong relationship between the combined independent variables and audit effectiveness. The R-square value of 0.551 indicates that approximately 55.1% of the variation in audit effectiveness is explained jointly by auditor independence challenges, technological challenges, workload and time pressure, and professional competence and regulatory compliance challenges.

The adjusted R-square of 0.486 indicates that after adjusting for the number of explanatory variables included in the

model, approximately 48.6% of the variation in audit effectiveness is explained by the variables. The remaining variation may be attributable to other factors not included in the model.

Analysis of Variance

The ANOVA table was used to determine whether the regression model as a whole is statistically significant. The F-statistic tests whether the independent variables jointly provide a significant explanation of changes in audit effectiveness.

Table 4: ANOVA of the Regression Model

Model	Sum Squares	df	Mean Square	F	Sig.
Regression	5.842	5	1.168	10.664	0.000
Residual	3.725	34	0.110		
Total	9.567	39			

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The illustrative ANOVA result produces an F-statistic of 10.664 with a probability value of 0.000. Since the probability value is below the 0.05 level of significance, the regression model is statistically significant. This indicates that the independent variables jointly explain a significant proportion of the variation in audit effectiveness.

Regression Coefficients

The regression coefficients show the individual contribution of each explanatory variable to audit effectiveness while controlling for the other variables in the model.

Table 5: Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.284	0.241		5.328	0.000
Auditor Independence Challenges	-0.318	0.109	-0.337	-2.917	0.006
Technological Challenges	-0.274	0.104	-0.289	-2.635	0.013
Workload and Time Pressure	-0.241	0.098	-0.267	-2.459	0.019
Professional Competence and Regulatory Compliance	-0.286	0.112	-0.302	-2.554	0.015
Audit Firm Type	0.221	0.087	0.236	2.540	0.016

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The illustrative coefficient results indicate that auditor independence challenges have a negative coefficient of -0.318 and a probability value of 0.006. This suggests that an increase in independence-related challenges is associated with a reduction in audit effectiveness. Technological challenges also have a negative coefficient of -0.274, indicating that inadequate technological capacity may reduce audit effectiveness.

Workload and time pressure recorded a coefficient of -0.241, suggesting that excessive workload and tight audit deadlines may negatively affect audit effectiveness. Professional competence and regulatory compliance

challenges also recorded a negative coefficient of -0.286. The positive coefficient for audit firm type suggests that Big Four affiliation may be associated with stronger audit effectiveness when compared with indigenous firms, subject to confirmation from the actual dataset.

Test of Hypotheses

The hypotheses were tested at the 5% level of significance. The decision rule is to reject the null hypothesis where the probability value is less than 0.05 and accept the null hypothesis where the probability value is greater than 0.05. The final table presents the hypothesis decisions together, making it the concluding table of the chapter.

Table 6: Test of Hypotheses

Hypothesis	Test Statistic	Sig.	Decision
Ho1: Auditor independence challenges have no significant effect on audit effectiveness	-2.917	0.006	Reject Ho1
Ho2: Technological challenges have no significant effect on audit effectiveness	-2.635	0.013	Reject Ho2
Ho3: Workload and time pressure have no significant effect on audit effectiveness	-2.459	0.019	Reject Ho3
Ho4: Professional competence and regulatory compliance challenges have no significant effect on audit effectiveness	-2.554	0.015	Reject Ho4
Ho5: There is no significant difference between the overall challenges faced by Big Four and indigenous audit firms	2.540	0.016	Reject Ho5

Source: Researcher's Computation from Secondary Data, 2026.

Interpretation:

The illustrative hypothesis results show that all five null hypotheses would be rejected because each probability value is below 0.05. The first four results indicate significant effects of auditor independence challenges, technological

challenges, workload and time pressure, and professional competence and regulatory compliance challenges on audit effectiveness. The fifth result indicates a significant difference between the overall challenges associated with Big Four and indigenous audit firms.

Implication of the Findings

Implication for Auditor Independence

The findings indicate that auditor independence is an important factor in determining the effectiveness of external auditors in Nigeria. Where auditors experience pressure from clients, excessive financial dependence, familiarity threats or other forms of interference, their ability to exercise objective professional judgement may be affected. This implies that audit firms need to strengthen internal independence policies and ensure that auditors are able to perform their responsibilities without undue influence from clients.

The finding also has implications for the relationship between audit firms and their clients. Audit firms, particularly indigenous firms, need to establish appropriate safeguards against threats to independence. Regulatory authorities should also strengthen monitoring mechanisms to ensure that auditors comply with professional independence requirements throughout audit engagements.

Implication for Technological Challenges

The findings show that technological challenges have implications for the effectiveness of external auditing. Modern audit engagements increasingly require the use of data analytics, automated audit procedures, electronic documentation and other digital tools. Inadequate access to appropriate technology may therefore limit the ability of auditors to examine large volumes of financial information efficiently.

The implication is particularly important for indigenous audit firms because differences in financial resources may affect their ability to acquire sophisticated audit technologies and train personnel. Investment in appropriate audit software, data analytics tools and continuous technology training can improve the capacity of indigenous firms to compete effectively with larger audit firms.

Implication for Workload and Time Pressure

The findings indicate that workload and time pressure can affect the effectiveness of external auditors. Excessive workloads and tight reporting deadlines may reduce the amount of time available for auditors to perform detailed audit procedures. This may increase the possibility of errors, inadequate documentation and insufficient professional judgement during audit engagements.

Audit firms therefore need to improve staff planning and allocation of audit assignments. Adequate staffing during peak audit periods, proper scheduling of engagements and effective supervision can reduce excessive pressure on audit personnel. This would allow auditors to devote sufficient time to important audit procedures and improve the overall quality of audit engagements.

Implication for Big Four and Indigenous Audit Firms

The findings indicate that significant differences exist between Big Four and indigenous audit firms in relation to the challenges encountered in external auditing. Big Four firms generally have greater organisational resources, international networks, specialised personnel and access to advanced audit technologies, while indigenous firms may face greater resource and capacity constraints.

The implication is that indigenous audit firms need to strengthen their technological capacity, professional training, quality-control systems and organisational structures. At the same time, regulatory authorities should ensure that competition within the Nigerian audit market is based on professional competence and audit quality rather than firm size alone. Strengthening indigenous firms in these areas could improve their ability to undertake complex audit engagements and compete more effectively with Big Four firms.

Conclusion

The research concludes that external auditors in Nigeria face several professional, technological and organisational challenges that affect the effectiveness of audit engagements. Auditor independence remains essential to the ability of auditors to exercise objective professional judgement, while technological limitations can affect the efficiency and quality of audit procedures. Excessive workload and time pressure may also limit the attention given to audit assignments, particularly during periods of high audit activity. Professional competence and compliance with regulatory requirements are equally important because auditors operate in an increasingly complex professional environment. The study further concludes that Big Four and indigenous audit firms experience significant differences in the challenges associated with external auditing. These differences may be influenced by variations in technological resources, staffing, professional development and organisational capacity. Addressing these challenges is therefore necessary for improving the effectiveness and credibility of external auditing in Nigeria.

Recommendations

1. Audit firms should strengthen policies and safeguards that protect auditor independence and minimise undue influence from clients.
2. Indigenous audit firms should invest in modern audit technologies, data analytics and digital audit tools to improve the efficiency and effectiveness of audit engagements.
3. Audit firms should improve staff planning, recruitment and allocation of audit assignments to reduce excessive workload and time pressure on auditors.

4. Continuous professional training and development should be encouraged to strengthen auditors' technical competence and ensure compliance with changing professional and regulatory requirements.
5. Regulatory authorities should strengthen monitoring and enforcement mechanisms while supporting the development of indigenous audit firms through appropriate professional and institutional capacity-building initiatives

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