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Determinants of Tax Audit Effectiveness in Southwestern Nigeria

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ABSTRACT

The study assessed the determinants of effectiveness of tax audits in southwest Nigeria. The study was based on descriptive survey research design using questionnaire administered to targeted population. The study population consists of the four hundred (400) staff members of Nigeria Revenue Service (NRS) in Southwestern Nigeria as at 2026. Based on purposive sampling technique, 364 staff members involved in audit and collection functions were selected as the sample size (tax controllers, auditors, and other relevant officers). A quantitative method of analysis was employed through an adapted questionnaire which was distributed to 364 staff members, asking about their thoughts on tax audit effectiveness. Descriptive statistics and Feasible Generalized Least Squares (FGLS) were used to examine the determinants of effectiveness of tax audits practice. Results from analysis showed that audit quality and professionalism, legal framework and tax laws, and audit procedure and methodology have significant impact on tax audit effectiveness. On the other hands, determinants such as risk management and prioritization, taxpayers' cooperation and compliance culture, audit follow-up and enforcement, and political support and stakeholders' engagement have insignificant impact on tax audit effectiveness in southwest Nigeria. The study concluded that there is significant variation in the determinant factors influencing tax audit effectiveness in southwest Nigeria. Among other things, the study recommends that government should strengthen the institutional, legal, and procedural factors thorough tax policy as they are essential for enhancing the effectiveness of the tax audit system in Southwestern Nigeria.

Keywords: Tax Audit, Effectiveness, NRS Staff Members, Southwestern Nigeria
JEL Classifications: H83, H26, H71

1. INTRODUCTION

Over the years, taxes as been a primary source of revenue to governments worldwide in carry out their projects such as funding public goods, infrastructure, construction of good roads, hospitals, sinking borehole among others. Achieving those projects is based on the amount of revenue generation which is hinges on effective tax administration system. One of the responsibilities of taxpayers is self-assessment where taxpayers voluntarily calculate and remit appropriate taxes to the relevant tax authorities as stipulated in tax law. The authorities also play a major role in verifying the taxpayers' submission and the level of compliance by embarked on tax audit which a pivotal control apparatus for the authorities to verify declarations and ensure compliance. The sincerity of the whole system, consequently, depends on the likelihood that any act of noncompliance in taxpayers' submission will be detected and the evaders appropriately sanctioned. Governments strive to enhance tax revenue, with tax audits being among the most effective policy tools to combat tax evasion (Barreto, 2025). An effective tax audit system is theoretically expected to enhance tax compliance and revenue mobilization to fund public goods and services, whereas an ineffective system yields the opposite result (Oyedokun, 2016).

However, achieving tax audit effectiveness is not automatic. ThankGod and Ajinwo (2020) posited that tax audit operations in Nigeria remain at a suboptimal level, thereby hampering its potential to curb tax evasion. Over the years, Nigeria recorded one of the lowest taxes to GDP ratio in the world, suggesting that there is still a high level of tax evasion resulting from low tax morale and weak tax administration. This development is common with many of the developing nations, and it is largely attributed to the weak enforcement of the provisions of the tax laws (Fjeldstad and Heggstad, 2012; Bird, 2015). As a result, large amounts of legally due taxes remain uncollected despite tax audits being carried out, undermining fiscal sustainability and increasing reliance on volatile oil revenues and public debt. More so, one factor that has been reported by prior studies which significantly contributes to tax evasion is lack of intensive audits and absence of predetermined audit criteria.

The core problem is that the specific factors that determine whether a tax audit achieves its intended purpose in Nigeria are not well-established. Prior studies at international and local arena that focused on determinants of tax audit effectiveness include (Adane, 2020; Alao 2021; Chebeso et al., 2024; Barreto, 2025 and Oladejo et al., 2025) identified different determinant of tax audit effectiveness. This is an indications that factor that affect tax audit effectiveness differed in different location for the expected revenue generation from the taxes. According to Hauptman et al. (2014) and Chalu and Mzee (2017), different factors affect tax audit effectiveness which may include location and time-specific, dependent on a nation's administrative trustworthiness and context. From the foregoing, it is observed that several studies have tried to examine the determinant of tax audit effectiveness, either directly or indirectly. However, there are problems that persist in the literature that actually necessitate the present study. The fundamental problem is lack of extant literature from southwest Nigeria. This gap impedes the development of targeted interventions to strengthen the audit function. Without a clear understanding of the key drivers of audit effectiveness, reform efforts may be misdirected. Therefore, this study seeks to examine the factors that determine the effectiveness of tax audits in Nigeria.

2. LITERATURE REVIEW

Existing literature reveals divergent outcomes and multiple concepts indicating factors determining how effective tax audit is. Drogalas et al. (2015) investigated the factors affecting audit effectiveness in the Greek firms. With data from over two hundred questionnaires served on the tax audit personnel in the Greek taxing authority, the competence of the tax audit professionals to discover tax infringements was measured, which was used as the proxy for effective tax audit. The result showed that information systems and IT instrument employed in tax audit process can help them to track tax infringements properly, thereby increasing tax audit effectiveness. They also found that consistent review of the tax laws inhibits the effectiveness of tax audit. Drogalas et al. (2015) further found that educated and trained Tax Auditors are more capable of improving tax audit effectiveness It was also found that adequacy of supporting facilities, professional training number auditors and accessibility to existing information systems significantly affect tax audit. Karyeija (2021) studied the determining factors of the effectiveness of tax audit in Uganda with data gathered through interview of 30 tax auditors selected from the Uganda Tax Authority. The study found that three types of Audits were being carried out which include special project audit, refund audit and de-registration audit. It was found that both tax authority-related and taxpayers-related factors in tax audit affect its effectiveness. It was further revealed that support from top management, organizational independence, including audits' attributes significantly influence tax audit, while organizational setting has negative influence on tax audit.

In Tanzania, Chalu and Mzee (2017) divided the determinants into four categories relating to the following: Organizational, tax auditors, tax payers and regulatory related. Data were gathered through questionnaires administered on audit officials in twenty-three tax regions around Tanzania. The inferential statistics which include Explorative Factor Analysis (EFA) and Multiple Regression Analytical technique were utilized. Result of the analysis found important factors which fall under five categories. These include Tax auditors' recommendations implemented, under the organizational category, Adequate Tax audit unit which was in the tax auditors' category, taxpayers' attitude which was in the taxpayers' category. Availability and application of regulation for tax audit regulations affects tax audit effectiveness under the regulatory related category, while in the regulatory strata, leadership and tax policies were identified. The study concluded that by implication, tax audit effectiveness relies heavily on regulations.

Supriyatin et al. (2019) researched to analyze what effects the auditors' competences and job satisfaction have on the quality of tax audit, with time pressure as the moderating factor and with a focus on tax auditors in Indonesian tax offices. They found that the job satisfactions and competent audit practices significantly affects the audit process, and the quality of audit report. Addisu (2019) obtained evidence from the staffs of Ethiopian Revenue offices at Addis Ababa to identify the determining factors in tax audit effectiveness. The study revealed Auditors' experience, case selection method, information systems in use and Auditors' training as influencing factors of Tax Audit Effectiveness. Control variables incorporated are Education level and Tax legislation. The study recommended policy intervention that simplifies information systems and automation of Audit case selection to improve tax audit process.

Beredugo et al. (2019) adopted survey research design to find the relevance of effective tax audit and investigation to address tax evasion and avoidance in Cross River state, Nigeria. Both federal and Cross River tax authorities were focused in the study. The data were analyzed through Chi-square. Penalty and Thoroughness of Tax Audit were found to significantly affect compliance and discourage tax evasion and avoidance. They recommended tax education and adequate penalty implementation as a way to improve tax compliance in Nigeria. Serikova et al. (2020) explored the necessity of applying innovative tools for improving state tax audit. It was revealed that the introduction and execution of information and innovative systems improve the effectiveness of state tax audit. In Abebaw (2020), data were gathered from 353 respondents which include officials of Category A and Category B tax offices of Ethiopia to examine the determinants of tax audit effectiveness. It was revealed that quality of auditing, independence of auditors, support from management, competence of audit staff and information system affect tax audit significantly.

Tesfie et al. (2021) studied an assessment of Tax Audit effectiveness in Ethiopia using 105 respondents consisting of tax audit experts and taxpayers. They found significant positive relationship between the explanatory variables (Audit selection process, Auditors' experience and type of audit) and the dependent variable (tax audit), while auditor's age and study discipline have a negative effect. Alao (2021) carried out the same study in Kwara state, Nigeria. State Internal Revenue Service staff was focused, and data were analysed with a regression model. Auditors Competence, Auditors' integrity, and information systems had a significant influence, while audit type has no relationship with tax audit.

In the United States, Kasper and Alm (2021) carried out an experiment to investigate the effect of audit effectiveness on post audit tax compliance, and whether the effect of tax audit depends on taxpayers' reporting behavior before the audit. They found that the tax audit effectiveness of audits differentially affects post audit compliance. It was also found that tax audit deterrent strategies are ambiguous in contrast with the behavioral model, suggesting that taxpayers' compliance level depends both on the effectiveness of tax audit and on taxpayers' prior reporting behaviour.

By conducting a case study type of research, Wahyudin et al. (2022) evaluated the implementation of tax audits at Large Tax Office Four. They found that tax audit implementation has not effectively supported tax revenue. This is due to limited facilities and infrastructure, insufficient supporting data; unpleasant feelings caused by mutation and insufficient Tax Auditors personnel. In another case study research on a broader research subject, Marlisza and Yulianti (2022) revealed that the causes of the relatively low ACR in Indonesia are the unequal number of tax audit personnel with the number of taxpayers; the inadequate training programs; the imperfect implementation of promotion and mutation system; the lack of integration of information technology system; the lack of data provided by taxpayers and external parties in supporting tax audit activities; and the lack of communication with other sections.

For example, Derya (2023) investigated the tax audit practices in Turkey. Qualitative research and interview methods were employed, with content analysis carried out. The study identified the absence of dynamic structures for legislation and a low level of awareness as the most important problems of tax audit in Turkey. Other problems identified include a poor taxpayers' approach to tax audit, excessive informal economy, and constant changes in tax legislation. Melliniawati and Mulyono (2023) investigated the factors that affect tax audit in the North Jakarta region of Indonesia. The study identified three categories of factors affecting tax audit, which include Top Management Support, proxied by three variables, which are budgetary accuracy, available support facilities, and sufficiency of technical training. Khamis and Mastor (2023) investigated trust in the tax authority as a moderating factor on tax audit and enforced tax compliance among e-commerce businesses in Malaysia. The result showed that the tax penalty relates significantly to enforced compliance. The result further showed that tax audit having direct but insignificant relationship with compliance, and relates positively with Trust in Authority, which serves as the mediating factor.

Meanwhile, a study conducted by Alao (2021) in Kwara state concluded that tax auditor competence, tax auditor's integrity and information system had strong positive and significant relationship with tax audit effectiveness while audit program is related but insignificant to the study. Chebeso et al. (2024) in Ethiopia concluded that organizational independence, top management support, and tax audit quality were statistically significant factors inflecting tax audit effectiveness while audit communication, audit attributes, tax legislation system, and information system utilization, were elements that had a negative impact on tax audit effectiveness. Similarly, the result from study conducted by Oladejo et al. (2025) showed that regulatory framework, tax policies, compliance culture and political environment are the major determinants of tax audit practice in Osun state. Hence, to give a clearer picture of the determinants of tax audit effectiveness in southwestern Nigeria, the study is guided by the following research question:

What are the determinants of tax audit effectiveness in southwestern Nigeria?

3. METHODOLOGY

This study adopted a survey research design to thoroughly address the research questions and objectives. The study was carried out across 21 Nigeria Revenue Service (NRS) offices in the South-West region of Nigeria, covering Lagos, Ogun, Ondo, Osun, Ekiti, and Oyo States. These offices include Large, Medium, and Small Tax Offices and were selected because they encompass major business and economic hubs in Nigeria, have wide operational coverage, and operate under uniform principles with staff frequently transferred across the nation. From a total population of 400 staff members, a sample of 364 was selected for this study using a purposive sampling technique.

Primary data were collected through a structured, closed-ended questionnaire and in order to establish the construct validity of the instrument, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted. The determinant of the correlation matrix was 0.004, indicating sufficient correlations among items to justify the use of factor analysis. Reliability of the instrument was censured by calculating Cronbach's alpha for each construct, confirming internal consistency of the measurement items. The data collected were analyzed using Ordinary Least Squares (OLS) regression and Feasible Generalized Least Squares (FGLS) to examine the relationship between the determinants and tax audit effectiveness. The model for this study is specified as:

$$TAE_i = \beta_0 + \beta_1 ACS_i + \beta_2 TAQ_i + \beta_3 TU_i + \beta_4 LFTI_i + \beta_5 RMP_i + \beta_6 APM_i + \beta_7 TCC_i + \beta_8 AFE_i + \beta_9 PSS_i + \beta_{10} PPA_i\, \varepsilon_i \quad \text{(i)}$$

Where:
TAE is tax audit effectiveness
ACS is audit coverage and scope

TAQ is tax audit quality and professionalism
TAI is technology and innovation;
LFT is legal framework and tax laws
RMP is risk management and prioritization
APM is audit procedure and methodology;
TCC is taxpayers' corporation and compliance culture
AFE is audit follow-up and enforcement
PSS is political support and stakeholders engagement
PPA is public perception and awareness

β_0 is the constant term, β_1 ... β_{10} are the slopes of the regression to be estimated and ε_i captures the stochastic error term.

A priori expectation: $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10} > 0$

3.1. Data Processing for Regression Analysis

To generate the composite values (from the primary data drawn from a structured questionnaire designed with multiple items under each construct) suitable for regression analysis, the responses to the items under a particular variable were averaged to generate a single score representing that construct, which was applied consistently across all variables. This helps researcher to ensure that these variables are signified by a single continuous score, capturing the overall tendency of responses while minimizing measurement error through the averaging method. According to Hair et al. (2019), standard practices in quantitative research are required where multi-item scales were aggregated for composite index for proper analysis. Hence, the composite scores computed for the variables were used as the independent and dependent variables in the regression analysis for the study.

4. RESULTS AND DISCUSSION

4.1. Descriptive Profile of the Respondents

Questionnaires were distributed to NRS staff in southwest Nigeria through self-reported questionnaires written in English language distributed using Google form channel. The study receives a total of 364 valid responses a month later, which is more than the minimum targeted sample (360 samples). Demographic results show that out of 364 respondents, 204 (56.04%) were male and 160 (43.96%) were female. This showed that men were the majority that responded to the questionnaire administered to the NRS staff in southwest Nigeria. In regard to age group, respondents were categorized into five age groups, 38 respondents (10.05%) were between 20 and 29 years, 94 respondents represent (25.82%) were aged between 30 and 39 years, 134 respondents represent (36.26%) were aged between 40 and 49 years, representing the largest age group, 83 respondents represent (22.8%) were aged between 50 and 59 years, and 17 respondents (4.67%) were 60 years and above. This indicates that the majority of respondents are still within the active working age range of 40-49 years which are relatively mature and likely knowledgeable group of professionals.

Similarly, the result in the Table 1 shows that 2 respondents representing 0.55% had diploma as qualification, 240 respondents

Table 1: Demographic profile of respondents

Variable	Category description	Frequency	Percentage	Mean	Standard deviation
Gender	Male	204	56.04	0.56	0.5
	Female	160	43.96		
Age	20-29 years	38	10.44	2.85	1.04
	30-39 years	94	25.82		
	40-49 years	132	36.26		
	50-59 years	83	22.8		
	60+years	17	4.67		
Highest educational qualification	Diploma	2	0.55	3.37	0.57
	B.Sc.	240	65.93		
	M.Sc.	108	29.67		
	PhD	14	3.85		
Position in organization	Officer	91	25	2.84	1.33
	Supervisor	66	18.13		
	Manager	32	8.79		
	Senior Staff	160	43.96		
	Director	15	4.12		
Years of engagement	1-5 years	72	19.78	2.26	0.77
	6-10 years	127	34.89		
	11+years	165	45.33		
Professional qualification	ICAN	116	31.87	2.64	1.44
	ANAN	74	20.33		
	CITN	119	32.69		
	ACCA	5	1.37		
	CFE	26	7.14		
	CPA	24	6.60		
State location	Ekiti	23	6.32	4.35	1.31
	Ondo	27	7.42		
	Osun	22	6.04		
	Ogun	52	14.29		
	Lagos	209	57.42		
	Oyo	31	8.52		

Source: Author's computation, 2026

representing 65.93% had a B.Sc. degree. Meanwhile, 108 respondents representing 29.67% possessed M.Sc. degrees, while 14 respondents representing 3.85%, possessed a PhD degree. This distribution implies that majority of respondents were highly educated with Bachelor degree and advanced degrees. In the same vein, Table 1 shows that the respondents in terms of organizational roles, 91 respondents represent 25% were officer, 66 (18.13%) for supervisors, 32 (8.79%) for managers, 160 (43.96%) for senior staff and 15 representing 4.12% for directors. This indicates that majority of the respondents were senior staff that have understand of tax audit effectiveness offering a rich pool of informed opinions.

Furthermore, Table 1 shows that the largest proportions of respondents, 165 representing 45.33%, which range from 11 years and above, have professional experience, follow by 127 respondents representing 34.89% had professional experience between 6 and 10 years. The respondents that have between 1 and 5 years of engagement were the least in the Table 1, which represent 72 or 19.78%. This is an indication that the majority of respondents were experienced professionals, likely to have comprehensive knowledge of institutional practices. Regarding professional qualification, 116 respondents representing 31.87% were with ICAN, 74 respondents representing 20.33% were with ANAN, 119 respondents representing 32.69% were with CITN, 5 respondents representing 1.37% were with ACCA, while 26 respondents representing 7.14% were with CFE and 24 respondents representing 6.60% were with CPA. This implies that majority of respondents were professional qualified and have knowledge in the area of tax auditing.

The distribution base on geographical location, 23 respondents (6.32%) were from Ekiti state, 27 respondents representing 7.42% were from Ondo state, 22 respondents (6.04%) were from Osun state, 52 respondents (14.29%) were from Ogun state, while 209 respondents representing 57.42% were from Lagos state, representing the largest respondents and 31 respondents (8.52%) were from Oyo state. The higher concentration of respondents in Lagos state can be attributes to different reasons which many include; Lagos as the commercial hub of Nigeria and a higher number of NRS tax offices.

4.2. Tax Audit Effectiveness

Table 2 shows the level of individual construct on perceived return on audit investments and the system's ability to reduce the tax gap. The response includes; never, rarely, sometimes, often, always, mean and standard deviation. The result based on respondents indicates that tax audit effectiveness shows positive but nuanced perception from the respondents. Majority agreed that tax audits can lead to taxpayers' compliance and revenue generation in southwest of Nigeria; while others have different opinion concerning efficiency, fairness, and system design. Table 2 shows that mean score of the items range from 2.85 to 3.53. Audit covers relevant taxpayers has a highest (3.53) while Future audit threat promotes compliance has the lowest means score.

The overall results indicates that tax audits are superficial to effectively target non-compliant taxpayers, lead to recover of unpaid taxes, and improve tax record keeping from both tax authorities and taxpayers and overall compliance behaviuors. Respondents concluded that resources are reasonably well utilized and audit timing is largely adequate. Meanwhile, on the note of persist regarding fairness, cost justification, auditor training, and procedural transparency. On the other hand, there is a relative low in regard to confidence in the deterrent power of future audits and in risk-based competence this call for strategic improvements in how audits are planned, communicated, and executed from the tax authorities.

4.3. Determinants of Tax Audit Effectiveness

Table 3 shows the level of individual construct on the operational drivers that determine how effectively audits are planned and executed. The factors include audit scope, auditor capacity, and use of technology, legal clarity, and risk-based selection as shown in Table 3. The finding show the determinants of tax audit efficiency which reveals a complex mix of structural, procedural, and

Table 2: Tax audit effectiveness

Item	Never	Rarely	Sometimes	Often	Always	Mean	Standard deviation
Audit covers relevant taxpayers	2.2	12.09	32.69	36.26	16.76	3.53	0.98
Audit identifies tax evaders	6.32	22.25	32.97	26.92	11.54	3.15	1.09
Audit recovers unpaid taxes	7.14	20.88	30.22	29.95	11.81	3.18	1.11
Revenue recovery cost-effective	10.71	17.03	30.22	30.77	11.26	3.15	1.16
Audit completed timely	7.97	15.38	38.46	26.1	12.09	3.19	1.09
Audit resources well utilized	7.42	17.86	31.87	30.49	12.36	3.23	1.11
Audit cost justified by revenue	9.34	25.82	28.02	27.2	9.62	3.02	1.14
Audit detects evasion	8.79	16.76	37.64	26.1	10.71	3.13	1.09
Auditors trained for fraud detection	9.34	21.43	34.89	23.63	10.71	3.05	1.12
Audit process transparent and fair	12.36	23.08	32.97	20.33	11.26	2.95	1.17
Audit notice and information adequate	5.22	20.6	30.22	28.3	15.66	3.29	1.12
Dispute resolution fair and timely	9.89	25.27	33.52	22.25	9.07	2.95	1.11
Clear appeal guidelines	7.42	25.27	29.4	25.82	12.09	3.1	1.13
Errors resolved promptly	9.89	19.51	36.81	23.63	10.16	3.05	1.11
Audit promotes record keeping	4.67	19.78	32.42	29.4	13.74	3.28	1.07
Future audit threat promotes compliance	11.81	28.3	32.69	17.58	9.62	2.85	1.14
Risk-based auditing efficient	12.64	24.73	32.69	21.43	8.52	2.88	1.14
Risk-based selection effective	9.34	19.78	30.77	27.2	12.91	3.15	1.16
Audit system improves compliance	6.87	18.68	35.44	26.65	12.36	3.19	1.09
Audit reduces tax gap	3.3	17.58	29.4	31.59	18.13	3.44	1.08

Source: Author's computation, 2026

Table 3: Determinants of tax audit effectiveness

Questions	Never	Rarely	Sometimes	Often	Always	Mean	Standard deviation
Audit scope comprehensive	2.47	12.09	31.87	37.36	16.21	3.53	0.98
Audit targets high-risk taxpayers	4.12	26.37	37.09	24.73	7.69	3.05	0.99
Auditors are knowledgeable	6.87	17.31	30.77	31.32	13.74	3.28	1.11
Auditors identify discrepancies	6.87	20.05	30.49	26.65	15.93	3.25	1.15
Qualified auditors used	7.69	21.15	31.59	28.02	11.54	3.15	1.11
Audit quality is consistent	9.07	17.31	33.79	28.57	11.26	3.16	1.12
Use of technology in audit	7.97	23.9	34.89	23.9	9.34	3.03	1.08
Technology improves audit	6.59	22.53	35.99	24.73	10.16	3.09	1.07
Integrated IT supports audit	7.42	18.41	34.89	27.75	11.54	3.18	1.09
Tax laws are clear	7.14	21.98	34.89	25.27	10.71	3.1	1.09
Legal framework is transparent	5.22	24.73	34.89	22.53	12.64	3.13	1.08
Tax law enforcement is strong	10.16	18.68	33.24	28.3	9.62	3.09	1.12
Data-driven risk selection	7.97	21.15	35.71	24.73	10.44	3.09	1.09
Risk mgmt. targets well	6.04	23.9	33.24	24.45	12.36	3.13	1.1
Risk-based audit reduces over-auditing	7.42	23.08	31.59	26.1	11.81	3.12	1.12
Audit procedures standardized	8.79	23.08	30.22	29.12	8.79	3.06	1.11
Procedures are clear/documented	7.97	23.63	29.4	27.47	11.54	3.11	1.13
Auditors use checklists	10.44	20.05	31.87	26.37	11.26	3.08	1.15
Taxpayer cooperation high	10.71	26.92	33.52	22.53	6.32	2.87	1.08
Taxpayer recordkeeping good	10.44	23.9	33.52	21.7	10.44	2.98	1.14
Audit promotes accuracy	7.69	21.43	38.19	23.35	9.34	3.05	1.06
Compliance culture is strong	8.52	19.23	30.77	29.4	12.09	3.17	1.13
Follow-up on findings	7.42	23.35	32.97	24.45	11.81	3.1	1.11
Effective penalty mechanism	8.79	20.6	34.89	21.7	14.01	3.12	1.15
Clear audit result communication	7.69	20.05	36.26	25.82	10.16	3.11	1.08
Timely enforcement of findings	7.69	20.33	33.79	27.75	10.44	3.13	1.09
Political support for audit	10.99	27.47	32.42	20.05	9.07	2.89	1.13
Audit policy collaboration	8.52	21.15	35.71	23.08	11.54	3.08	1.11
Government commitment is clear	6.04	20.88	32.69	27.2	13.19	3.21	1.1
Political will supports audit	10.71	24.73	34.62	21.15	8.79	2.93	1.11
Public views audit as fair	12.36	21.43	32.42	23.35	10.44	2.98	1.17
Taxpayer awareness is high	10.99	21.7	33.24	22.8	11.26	3.02	1.16
Clear audit communication	6.32	21.43	40.11	21.15	10.99	3.09	1.05
Public awareness promotes compliance	7.14	19.51	37.36	26.37	9.62	3.11	1.1
Tax audit improves compliance	9.62	17.03	32.14	27.2	14.01	3.19	1.13
Audit process addresses noncompliance	7.14	16.76	34.34	28.57	13.19	3.14	1.11
Audit system increases tax revenue	2.2	11.54	29.12	37.09	20.05	3.61	0.98

Source: Authors' computation, 2026

behavioural drivers. The results show that technical capacity and stakeholder engagement significantly shape the effectiveness of tax audit operations. The response includes; never, rarely, sometimes, often, always, mean and standard deviation. Majority agreed on the listed determinants as factors that influence tax audit effectiveness in southwest of Nigeria. Table 3 shows that mean score of the items range from 2.87 to 3.53. Audit scope comprehensive has a highest (3.53) while taxpayer cooperation high has the lowest means score. This is an indication that tax audit efficiency is most strongly driven by factors related to audit scope, auditor competence, technological integration, structured procedures, and revenue outcomes. While legal frameworks and risk-based models support efficiency, gaps persist in political support, taxpayer cooperation, and public perception. Enhancing audit efficiency will therefore require both internal capacity strengthening and external engagement, particularly with taxpayers and political actors, alongside the continued modernization of audit systems and procedures.

4.4. Estimates of Factors Determining the Effectiveness of Tax Audit in Southwestern Nigeria

Ordinary Least Squares (OLS) regression was used in determine the determinants of tax audit effectiveness in Southwestern Nigeria. More so, for robustness the result shows the presence of heteroskedasticity because it has violated the requirement of the OLS assumption of constant error variance. To correct that, the study conducted the Feasible Generalized Least Squares (FGLS) estimation technique as a remedy in correcting the problem of heteroskedasticity and yields more efficient and reliable coefficient estimates and robust standard errors.

The result in Table 4 show that Audit Coverage and Scope (ACS), Tax Audit Quality and Professionalism (TAQ), Technology and Innovation (TAI), Legal Framework and Tax Laws (LFT) and Audit Procedure and Methodology (APM) served as determinant tax audit effectiveness in southwest Nigeria. This implies that unambiguous and enforceable tax audit legislation has a positive association with tax audit effectiveness. Accordingly, tax audits typically yield better outcomes when tax laws are suitably drafted, updated frequently, and enforced because there is less uncertainty and better compliance enforcement systems.

However, Risk Management and Prioritization (RMP), Taxpayers' Cooperation and Compliance Culture (TCC), Audit Follow-up and Enforcement (AFE), Political Support and

Table 4: Estimates for the factors that determine the effectiveness of tax audit in Southwestern Nigeria

Variable	OLS estimate	Feasible GLS estimate
ACS	0.0415*	0.0414**
	(−0.025)	(−0.0239)
	[1.66]	[1.73]
TAQ	0.1286***	0.1302***
	(−0.0304)	(−0.0286)
	[4.23]	[4.56]
TAI	0.0626**	0.0523**
	(−0.0257)	(−0.0244)
	[2.44]	[2.15]
LFT	0.0654**	0.0602**
	(−0.0262)	(−0.0251)
	[2.49]	[2.40]
RMP	0.0522*	0.036
	(−0.0266)	(−0.0253)
	[1.96]	[1.42]
APM	0.0858***	0.0583**
	(−0.0268)	(−0.0259)
	[3.20]	[2.25]
TCC	0.0326	0.043
	(−0.0313)	(−0.0292)
	[1.04]	[1.47]
AFE	0.0706**	0.0414
	(−0.0308)	(−0.0288)
	[2.29]	[1.44]
PSS	0.0443	0.0252
	(−0.0293)	(−0.0288)
	[1.51]	[0.87]
PPA	0.0398	0.0589**
	(−0.0313)	(−0.0293)
	[1.27]	[2.01]
OVEF	0.0242	0.0099
	(−0.0277)	(−0.0259)
	[0.87]	[0.38]
CONS	1.1147***	1.3967***
	(−0.1554)	(−0.1657)
	[7.17]	[8.43]
Observations	364	364
R-squared	0.3684	0.2598
Adj. R-squared	0.3487	0.2366
Root MSE	0.3173	0.2974
F-statistic	18.67	11.23
Prob>F	0	0

Source: Authors' computation, 2026. ( ) is Standard Error, [ ] is t-statistic, while *** P<0.01, ** P<0.05, and * P<0.10

Stakeholders Engagement (PSS) and OVEF have insignificant as determinates factors. This implies that ineffective implementation of risk-based audit frameworks or a lack of institutional capacity to precisely identify and prioritize audit issues could be the cause of the insignificance. Furthermore, the study does not statistically validate the impact of taxpayer cooperation and the prevalent compliance culture on audit effectiveness, which may be due to inconsistent taxpayer behavior, inadequate taxpayer education, or ineffective enforcement mechanisms that do not promote a compliance culture. At the 1% level ($P < 0.01$), the constant term (_cons) is statistically significant with a value of 1.3967 and a t-statistic of [8.43]. This suggests that there is a baseline level of tax audit effectiveness in the absence of the explanatory variables, which is probably due to additional institutional or structural factors that the model does not specifically account for.

The overall result showed that audit quality and professionalism, technology and innovation, legal framework and tax law, audit procedure and methodology, and audit coverage and scope have a statistically significant positive relationship with the effectiveness of tax audit. Conversely, Risk Management and Prioritization, Taxpayers' Cooperation and Compliance Culture, Audit Follow-up and Enforcement, and Political Support and Stakeholders Engagement are not statistically significant in this model, indicating that their hypothesized effects are not empirically supported within this dataset. The model explains approximately 24% of the variation in tax audit effectiveness, as indicated by the adjusted R-squared value of 0.2366 while the remaining 76% of the total variation in the tax audit effectiveness is caused by other variables not included in the model. The joint significance of the explanatory variables is affirmed by an F-statistic of 11.23, which is statistically significant at the 1% level ($P < 0.01$), confirming the overall validity of the model.

4.5. Discussions of Findings

This study examined the factors that determine the effectiveness of tax audits in South-western Nigeria. The study finds that tax audits are perceived as having moderate effectiveness, with six factors identified as their determinants. The factors include audit coverage and scope, tax audit quality, the use of technology and innovation tools, clarity of tax legal frameworks, tax audit procedures and methodologies, public perception, and awareness of tax matters. This finding supports the study of Oladejo et al. (2025), Chebeso et al. (2024), Melliniawati and Mulyono (2023), Serikova et al. (2020), Chalu and Mzee (2017) and Drogalas et al. (2015) on professional training, adequacy of the tax audit unit, innovation, and a clear legal framework determining audit effectiveness. The study, however, did not support the finding of Karyeija (2021) and Melliniawati and Mulyono (2023) that top management support is a required factor for tax audit effectiveness. The result showed that equipping the tax audit unit for better tax audit quality, with innovations and the right regulations are important for effective tax audit.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the determinants of tax audit effectiveness in Southwestern Nigeria. The findings reveal that several factors significantly influence the effectiveness of tax audits, including audit quality and professionalism, technology and innovation, legal framework and tax laws, audit procedure and methodology, and audit coverage and scope. For efficiency in tax audits, there is need to improve the level of training of staff, modernized audit tools, clear and enforceable tax laws, standardized audit procedures, and comprehensive audit coverage.

On the other hand, risk management and prioritization, taxpayers' cooperation and compliance culture, audit follow-up and enforcement, and political support and stakeholder engagement were not determinants factors of tax audit effectiveness. This implies that, while theoretically important, these factors may be hampered by inconsistent implementation, limited institutional capacity, or inadequate resources within the Nigerian tax administration system. Among other things, government should focused in improving level of interventions that focus on strengthening audit quality, leveraging technology, improving legal frameworks, and expanding audit coverage. Such measures can enhance the effectiveness of tax audits, reduce tax evasion, and ultimately improve revenue mobilization for sustainable development in Nigeria.

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