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- I. Title page
- II. Abstract (150-250 words)
- III. Keywords (3-5)
- IV. Introduction
- V. Literature Review
- VI. Methodology
- VII. Results and Discussion
- VIII. Conclusion and Recommendations
- IX. References (APA 7th Edition)
- X. Appendices (if necessary)
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EFFECT OF TAX ADMINISTRATION EFFICIENCY ON TAX COMPLIANCE AMONG SMALL AND MEDIUM SCALE ENTERPRISES IN NORTH CENTRAL OF NIGERIA

ABUBAKAR LAMINO MUHAMMAD

ABSTRACT

This study investigated the Effect of Tax administration efficiency on Tax compliance among Small and Medium-sized Enterprises (SMEs) in North Central of Nigeria. The research focused on four key indicators of Tax administration efficiency: Electronic tax filing, Taxpayer education, Tax audit frequency, and Ease of registration, with Tax compliance as the Dependent variable. Employing a survey research design, the study targeted a population of 2,344 SMEs and analyzed responses from a final sample size of 375. Data were analyzed using multiple regression analysis. The findings revealed that all four Independent variables had positive and statistically significant effects on Tax compliance. Among them, Electronic tax filing and Tax audit frequency exerted the strongest influence, while Taxpayer education and Ease of registration also contributed meaningfully. The model explained 45.7% of the variance in Tax compliance, indicating a substantial influence of Tax administration efficiency. Based on these findings, the study recommends enhancing digital tax systems, expanding taxpayer education, conducting strategic audits, and simplifying registration processes to improve compliance rates among SMEs in the region.

Key Words: Electronic Tax Filing, Taxpayer Education, Tax Audit Frequency, and Ease of Registration, Tax Compliance.

1.0 Introduction

Tax compliance by Small and Medium Enterprises (SMEs) represent a significant portion of businesses worldwide, contributing approximately 90% of businesses and over 50% of employment globally (World Bank, 2023). It ensures equitable tax burden distribution, enhances public service delivery, and reduces reliance on external borrowing (OECD, 2022). Across Africa, tax compliance challenges stem from limited tax awareness, complex tax systems, and a large informal economy. Studies indicate that enhancing taxpayer education and simplifying tax regulations can improve compliance rates. In West Africa, countries like Senegal are focusing on improving tax compliance to reduce dependence on external funding.

In Nigeria, tax compliance is influenced by trust in government, education, and employment status. Studies have shown that transparency, accountability, and people-oriented tax policies can enhance compliance. Studies from North Central Nigeria show that factors like tax morale, education, and deterrence measures influence tax compliance among Small and Medium Enterprises (SMEs). In developing countries, reforms in tax administration such as electronic tax filing systems, taxpayer education, tax

audit frequency and ease of registration have significantly increased tax-to-GDP ratios and reduced corruption (UNCTAD, 2023).

Adoption of technology, such as e-tax filing systems, has contributed significantly to global SME compliance (OECD, 2022). Thus, in Nigeria promoting SME tax compliance is vital for broad-based development and inclusive economic growth. Also, taxpayer education improves compliance by increasing awareness of tax obligations and simplifying technical processes. In Nigeria, Adeyemi and Irekpita (2022) found that many SMEs default due to poor understanding of tax policies. Educated taxpayers are less likely to evade taxes and more likely to file accurately.

Frequent and risk-based audits enhance compliance by increasing the perceived risk of detection among taxpayers. However, in Nigeria overly aggressive or arbitrary audits may erode trust in tax authorities (Okoye & Gbegi, 2021). Balanced and fair audit systems promote voluntary compliance while discouraging evasion. Also, simplifying the tax registration process has significantly proven to improve compliance rates in Nigeria. According to

Ogundana et al. (2023), complex and bureaucratic registration discourages SMEs from formalizing their operations.

Statement of Problem

Empirical studies show a persistent gap between policy implementation and actual taxpayer behavior (Olaoye & Ogundipe, 2022). Existing literature has largely focused on general taxpayer behavior without isolating SMEs, creating a scope gap that limits targeted policy recommendations. Additionally, most studies have adopted descriptive or correlational designs without employing robust causal inference methods such as regression indicating a methodological gap (Ezejiofor & Ezenwoke, 2022). There is also a geographical gap, as research in this area is heavily concentrated in Southern and Eastern Nigeria, neglecting states in the North Central, where tax challenges may differ (Ogundana et al., 2023). Also, studies often overlook specific variables such as ease of registration, audit frequency, and digital infrastructure, leading to variable gaps in explaining the full effect of tax administration efficiency on compliance.

Research Questions

The following research questions were raised:

- i. What is the effect of Electronic Tax Filing Systems on Tax Compliance among SMEs in North Central of Nigeria.
- ii. What is the effect of Taxpayer Education on Tax Compliance among SMEs in North Central of Nigeria.
- iii. What is the effect Tax Audit Frequency on Tax Compliance among SMEs in North Central of Nigeria.
- iv. What is the effect of Ease of Registration on Tax Compliance among SMEs in North Central of Nigeria.

Objectives of the Study

The main objective of this study is to examine the Effect of Tax Administration Efficiency on Tax Compliance, Among Small and Medium Scale Enterprises In North Central OF Nigeria. The specific objectives of this study are to:

- i. Investigate the effect of Electronic Tax Filing Systems on Tax Compliance among SMEs in North Central of Nigeria.
- ii. Determine the effect of Taxpayer Education on Tax Compliance among SMEs in North Central of Nigeria.
- iii. Examine the effect Tax Audit Frequency on Tax Compliance among SMEs in North Central of Nigeria.
- iv. Determine the effect of Ease of Registration on Tax Compliance among SMEs in North Central of Nigeria.

Hypotheses

H₀₁: There is no significant effect of Electronic Tax Filing Systems on Tax Compliance among SMEs in North Central of Nigeria.

H₀₂: There is no significant effect of Taxpayer Education on Tax Compliance among SMEs in North Central of Nigeria.

H₀₃: There is no significant effect of Tax Audit Frequency on Tax Compliance among SMEs in North Central of Nigeria.

H₀₄: There is no significant effect of Ease of Registration on Tax Compliance among SMEs in North Central of Nigeria.

2.0 Literature Review

Tax administration efficiency refers to the capacity of tax authorities to collect taxes effectively using minimal resources while ensuring transparency, equity, and accountability. Efficient administration involves streamlined processes, automation, reduced compliance costs, and effective enforcement mechanisms (Olaoye & Ekundayo, 2021).

Electronic tax filing systems (e-filing) are digital platforms that allow taxpayers to file and pay taxes online, reducing the need for manual processes. These systems enhance convenience, reduce processing time, and minimize human error (Oladipupo & Obazee, 2021). In Nigeria, the Federal Inland Revenue Service (FIRS) has implemented the Integrated Tax Administration System (ITAS) to improve service delivery.

Taxpayer education refers to the process of informing and training taxpayers about their rights, obligations, and procedures to ensure accurate and timely compliance. It aims to reduce ignorance and misconceptions about taxation, which are major barriers to compliance among SMEs in Nigeria (Agbaje & Akinyemi, 2021). Adeyemi and Irekpita (2022) assert that awareness initiatives have improved voluntary compliance in many parts of the country.

Tax audit frequency refers to how often tax authorities conduct audits to verify the accuracy of taxpayers' financial declarations. Frequent and risk-based audits can deter evasion and encourage accurate reporting (Ezejiofor & Ezenwoke, 2022). In Nigeria, audit systems help enforce compliance, especially where informal operations are common. However, Okoye and Gbegi (2021) caution that excessive or arbitrary audits may create fear or resentment among SMEs.

Ease of registration refers to how simple and accessible it is for businesses to register with tax authorities. Complex or time-consuming procedures discourage SMEs from formalizing their operations,

leading to low compliance (Ogundana et al., 2023). In Nigeria, efforts have been made to reduce bottlenecks through online registration platforms and simplified requirements.

Conceptual Review

This seminar paper explores the nexus between tax administration efficiency and tax compliance among Small and Medium Scale Enterprises (SMEs) in the North Central of Nigeria. It seeks to understand how improvements in the administration of tax particularly in areas like taxpayer services, enforcement, and technology affect the willingness and ability of SMEs to comply with tax regulations.

Tax Administration Efficiency

Tax administration efficiency refers to the ability of tax authorities to effectively implement tax policies, ensure compliance, and facilitate easy and fair taxation, using minimal resources and time. An efficient tax administration builds taxpayer trust, improves tax morale and compliance, thereby increasing Government revenue and supporting sustainable development.

Tax Compliance

Tax compliance is the degree to which taxpayers (in this case, SMEs) meet their tax obligations voluntarily. This includes timely and accurate filing of returns, full disclosure of income, and prompt payment of taxes due. Compliance can be influenced by multiple factors—administrative, psychological, economic, and legal.

Small and Medium Scale Enterprises (SMEs)

Small and Medium Scale Enterprises, SMEs in Nigeria constitute over 90% of businesses and significantly contribute to GDP and employment, and are characterized by limited interaction with formal tax systems, poor record keeping, low tax literacy and mistrust in government. SMEs is defined based on employment size and annual turnover.

Empirical Reviews

Electronic tax filing, Olaoye and Ogundipe (2022) examined the influence of electronic tax filing on tax compliance among SMEs in Lagos, Ogun, and Oyo States in Southwest Nigeria. The study addressed the persistent challenge of low adoption rates of e-filing platforms, often linked to inadequate digital literacy and insufficient internet infrastructure. The authors utilized a survey research design, selecting 400 SMEs through stratified sampling to ensure balanced representation across the states. Data were analyzed using multiple regression to test the relationship

between e-filing and compliance behavior. Their findings showed a significant positive relationship SMEs utilizing e-filing platforms demonstrated higher compliance levels than those filing manually. Recommendations emphasized the need for expanded ICT training for SME operators and investment in broadband infrastructure to improve access. However, the study relied solely on quantitative data, thereby limiting the depth of insight into behavioral and motivational factors influencing e-filing adoption.

Oladipupo and Obazee (2021) assessed how electronic tax systems affect tax compliance and revenue generation among SMEs in Edo State. The central problem was whether e-filing reduces compliance burdens for SME taxpayers. A descriptive survey design was adopted, with 300 SME owners randomly selected from the Federal Inland Revenue Service (FIRS) registry. The authors used SPSS to perform regression analysis on the data collected. Their results indicated that the adoption of electronic tax systems significantly reduced filing errors and increased taxpayer satisfaction. The study recommended continuous upgrades of digital tax infrastructure and intensified taxpayer education. However, the lack of longitudinal data limited the ability to track compliance trends over time. A time-series analysis could have better captured behavioral changes following the introduction of e-tax systems.

Agbaje and Akinyemi (2021) explored how tax education influences compliance behavior among SMEs in Lagos State. The study was motivated by the increasing emphasis on FIRS outreach campaigns and their potential effect on taxpayer attitudes. A structured questionnaire was distributed to 300 SME operators selected via convenience sampling. The analysis combined descriptive statistics, ANOVA, and regression techniques. Findings showed that accessible and sustained tax education significantly enhanced tax compliance. The authors advocated incorporating tax education into business registration processes and increasing the frequency of outreach campaigns.

For tax audit frequency, Ezejiofor and Ezenwoke (2022) studied how the frequency of tax audits influences compliance among SMEs in Anambra State. The study responded to the question of whether regular audits deter non-compliance among SMEs. Using purposive sampling, 210 SMEs with previous audit histories were selected. Structured questionnaires provided the primary data, which were analyzed using regression analysis. The results indicated that frequent and transparent audits positively influenced compliance. The study recommended implementing a risk-based audit approach and ensuring fairness and transparency to foster trust among taxpayers. However, that the use of self-reported data might result in biased responses, as

some SME owners could underreport non-compliance.

Considering ease of registration, Ogundana, Ayoola, and Fagboro (2023) investigated the effect of tax registration simplicity on compliance behavior among SMEs in Abuja. The study addressed how complicated registration procedures discourage tax participation. SMEs registered with CAC and FIRS constituted the study population, from which 370 were selected using systematic sampling. The researchers employed Structural Equation Modeling (SEM) for data analysis. Results confirmed that simplified digital registration increased compliance. Recommendations included deploying electronic registration kiosks in public places and providing real-time customer support services. However, the limitation of their sample was to urban SMEs only, thus excluding insights from rural entrepreneurs who may face greater barriers to e-registration.

Theoretical Reviews

The Fiscal Exchange Theory, propounded by Richard A. Musgrave in 1959, explains tax compliance behavior as a reciprocal relationship between the government and taxpayers. According to this theory, taxpayers are more willing to comply with tax obligations when they perceive that public services received are commensurate with the taxes paid (Musgrave, 1959). The core assumption is that tax

compliance is enhanced when there is transparency, accountability, and efficiency in tax administration. A key limitation of the theory is that it downplays the deterrent role of sanctions and audits, focusing more on trust and perceived fairness, which may not hold in highly corrupt or informal economies (Torgler, 2003).

In the context of this study, the theory supports that electronic tax-filing systems can improve compliance by reducing delays and enhancing service delivery. Taxpayer education fosters awareness and trust, making taxpayers more confident in the government's use of funds. Tax audit frequency, when fair and transparent, reinforces the perception of a well-governed tax system. Lastly, ease of registration demonstrates administrative responsiveness, encouraging voluntary compliance. Thus, Fiscal Exchange Theory provides a useful lens for assessing how efficient tax administration mechanisms can enhance SME tax compliance in North Central Nigeria.

3.0 Methodology

The study adopted Survey research design and the Population of this study are the SME operators in Nasarawa, Kogi, Kwara, Niger and Plateau States. The Choice of these is that they adequately represent North Central region of Nigeria in the context of this study.

Table 1 Population and Sample Size Distribution

North Central States	Population	Proportion	Sample increase	Sample Size
Nasarawa	974	974/2,344*341	142*1.1	156
Kogi	435	435/2,344*341	63*1.1	69
Kwara	234	234/2,344*341	34*1.1	37
Niger	245	245/2,344*341	36*1.1	40
Plateau	456	435/2,344*341	66*1.1	73
TOTAL	2,344		341*1.1	375

Source: State Ministries of Trade, Commerce, and Investment of States

Using Yamane sample size determination formula,

$$\begin{aligned}
 n &= \frac{N}{1 + N(e^2)} \\
 &= \frac{2344}{1 + 2344(0.0025)} \\
 &= 341
 \end{aligned}$$

The sample size of 341 was arrived and sampling technique adopted by the study is Stratified proportionate sampling technique. Consequently, the sample size of the study based on stratified proportionate sampling technique after considering 10% attrition rate, which gave a final sample size of 375.

A 25 items structured questionnaire (five questions for each Independent variable and five questions also, for Dependent variable) was used to collect data and the independent variables of the study were electronic tax filing systems, taxpayer education, tax audit frequency and ease of registration. The reliability of the constructs were tested using Cronbach alpha with results of 0.71, 0.72, 0.73 and 0.75, respectively. The dependent variable was tax compliance with a Cronbach alpha results of 0.79 which indicated that they were all reliable enough for the study, because they exceeded benchmark of 0.7.

The modified five- point Likert response scale of Strongly Disagree, Disagree, Undecided, Agree and Strongly Agree was used and were awarded scores ranging from 1, 2, 3 4 and 5 respectively. The data collected was analyzed using different statistical procedures. The null hypotheses were tested using multiple regression through the aid of SPSS (Version) 23 software to find the strength of the relationship between tax compliance as the dependent variable and electronic tax filing systems, taxpayer education, tax audit frequency, ease of registration as independent

variables of the study. The functional relationship of the multiple regression is given as follows.

$$\text{TAXC} = f(\text{ELECT}, \text{TAXPE}, \text{TAXAF}, \text{EASE}) \dots\dots\dots (1)$$

Model Specification

With the aid of this equation, the study developed the model below

$$\text{TAXC}_{it} = \beta_0 + \beta_1 \text{ELECT}_{it} + \beta_2 \text{TAXPE}_{it} + \beta_3 \text{TAXAF}_{it} + \beta_4 \text{EASER}_{it} + \text{Ui}_{it} \dots\dots\dots (2)$$

Where TAXC = Tax Compliance, ELECT = Electronic Tax Filing, TAXPE = Tax Payer Education, TAXAF = Tax Audit Frequency, EASER = Ease of Registration

β_0 is the intercept while β_1 - β_4 is the coefficient of the independent variables.

A Priori expectation is that all the independent variables will have positive effect on Tax compliance.

4.0 Results and Discussion of findings

Table 2 provides a detailed summary of the descriptive statistics for the key variables examined in the study, which focuses on the effect of tax administration efficiency on tax compliance among SMEs in North Central of Nigeria. The variables include tax compliance, electronic tax filing systems, taxpayer education, tax audit frequency, ease of registration, based on 345 responses received from 375 administered questionnaires representing 92% return of copies of questionnaire.

Table 2. Descriptive statistics of variables

Variables	Obs	Minimum	Maximum	Mean	St Deviation
Tax Compliance	345	2.60	5.00	3.9820	.55888
Electronic Tax Filling	345	2.00	5.00	4.1583	.64276
Taxpayer Education	345	2.00	5.00	3.9177	.81480
Tax audit Frequency	345	2.40	5.00	4.2139	.59926
Ease of Registration	345	2.80	5.00	4.3959	.41300

Source: SPSS Outputs 2025.

The descriptive statistics for the study, on the effect of tax administration efficiency on tax compliance among SMEs in North Central of Nigeria reveal generally positive perceptions across all measured variables. Tax compliance, the dependent variable, recorded a mean score of 3.9820 on a 5-point scale, with a minimum of 2.60 and a maximum of 5.00. This indicates a relatively high level of compliance among SMEs, while the standard deviation of 0.55888 suggests moderate consistency in the responses.

Among the independent variables, electronic tax filing had a mean score of 4.1583, showing that most respondents acknowledged the availability and effectiveness of electronic filing systems. The

standard deviation of 0.64276 reflects a moderate variation in how SMEs experience or engage with electronic tax filing platforms. Taxpayer education yielded a mean of 3.9177, indicating that education efforts, were positively received overall. However, the relatively high standard deviation of 0.81480 implies a wider spread in perceptions, possibly due to unequal access to or impact of taxpayer education initiatives across the SME population.

Tax audit frequency had a mean of 4.2139 and a standard deviation of 0.59926, suggesting that tax audits are perceived as frequent and consistent, with relatively uniform experiences among the respondents. Ease of registration emerged as the most

positively rated variable, with a mean of 4.3959. It also showed the least variability in responses, as evidenced by the lowest standard deviation of 0.41300. This implies a strong consensus among SMEs that the tax registration process is simple and accessible.

Overall, all variables had mean scores above 3.90, indicating favorable perceptions of tax administration efficiency elements. The consistency in high ratings particularly for ease of registration and tax audit frequency suggests that these components are likely contributing to improved tax compliance among

SMEs in North Central Nigeria. However, the notable variability in responses regarding taxpayer education highlights the need for more inclusive and effective dissemination strategies to ensure uniform understanding and participation.

The correlation matrix presented in Table 3 offers insights into the strength and direction of the relationships between tax compliance and each of the independent variables electronic tax filing, taxpayer education, tax audit frequency, and ease of registration alongside the variance inflation factors (VIFs), which assess multi-collinearity among the predictors.

Table 3 Correlation Matrix of Dependent and Independent variables

Variables	Tax Compliance	Electronic Tax Filling	Taxpayer Education	Tax audit Frequency	Ease of Registration	VIF
Tax Compliance	1.000	.599**	.458**	.528**	.514**	
Electronic Tax Filling	.599**	1.000	.468**	.478**	.520**	1.876
Taxpayer Education	.458**	.468**	1.000	.463**	.286**	1.675
Tax audit Frequency	.528**	.478**	.463**	1.000	.228**	1.458
Ease of Registration	.514**	.520**	.286**	.228**	1.000	1.314

Source: SPSS Outputs 2025.

Tax compliance, the dependent variable, shows a strong and positive correlation with electronic tax filing ($r = 0.599^{**}$), indicating that improvements in digital filing systems are significantly associated with higher compliance among SMEs in North Central of Nigeria. This suggests that when tax procedures are simplified through electronic platforms, SMEs are more likely to comply with tax obligations.

Taxpayer education also correlates positively with tax compliance ($r = 0.458^{**}$), though the relationship is moderate. This implies that as SMEs receive more targeted and relevant tax education, their level of compliance tends to improve. However, the slightly weaker correlation compared to electronic filing may reflect inconsistencies in the reach or effectiveness of taxpayer education programs.

Tax audit frequency is similarly moderately correlated with tax compliance ($r = 0.528^{**}$), suggesting that the presence of regular or anticipated audits has a positive impact on compliance behavior. This supports the deterrence theory, which posits that increased likelihood of detection and enforcement encourages taxpayers to act in accordance with tax laws.

Ease of registration also demonstrates a positive and

statistically significant relationship with tax compliance ($r = 0.514^{**}$). This highlights the role of accessible and user-friendly registration processes in encouraging SMEs to comply with tax regulations, likely by reducing the administrative burden and entry barriers to formal tax systems.

In terms of multi-collinearity, the VIF values for all independent variables are well below the critical threshold of 10, with electronic tax filing at 1.876, taxpayer education at 1.675, tax audit frequency at 1.458, and ease of registration at 1.314. These values indicate a low risk of multi-collinearity, suggesting that the predictors do not excessively overlap and can be reliably included together in regression analysis without distorting the model's estimates.

Overall, the correlation analysis confirms that all four components of tax administration efficiency such as electronic tax filing, taxpayer education, tax audit frequency, and ease of registration are positively and significantly associated with tax compliance among SMEs. Electronic tax filing exhibits the strongest correlation, followed by tax audit frequency, ease of registration, and taxpayer education, respectively. These findings underscore the importance of an efficient, transparent, and supportive tax

administration system in enhancing voluntary compliance among small and medium-scale enterprises.

The regression analysis presented in Table 4 provides a comprehensive view of the individual and collective

effects of variables of tax administration efficiency on tax compliance among SMEs in North Central of Nigeria. The model includes four independent variables: electronic tax filing, taxpayer education, tax audit frequency, and ease of registration.

Table 4 Regression Results

Ind. Variables	Coefficients OLS	T Statistics OLS	P-Values
Constants	0.447	1.735	.084
Electronic Tax Filling	0.267	4.884	.000
Taxpayer Education	0.175	3.381	.001
Tax audit Frequency	0.242	5.004	.000
Ease of Registration	0.193	4.215	.000
R-Squared	0.457		
Adj. R-Squared	0.450		
F-Statistic	71.452		
P-Value	0.0000		

Source: SPSS Outputs 2025.

Findings and Implications of Findings

Starting with electronic tax filing, the regression coefficient is 0.267, with a t-statistic of 4.884 and a p-value of 0.000. This result indicates a positive and statistically significant relationship between electronic tax filing and tax compliance at the 1% significance level. The coefficient suggests that a one-unit improvement in the electronic tax filing process would lead to an estimated 0.267 increase in tax compliance, holding other factors constant. This finding highlights the critical role that digitalization and user-friendly e-filing systems play in promoting compliance among SMEs. This finding supports the studies conducted by Olaoye and Ogundipe (2022) and Oladipupo and Obazee (2021) who found a positive and significant effect of electronic tax filing on tax compliance.

Taxpayer education also has a positive and significant effect on tax compliance, with a regression coefficient of 0.175, a t-statistic of 3.381, and a p-value of 0.001. This implies that as efforts to educate taxpayers improve, compliance levels also rise. Although the magnitude of the effect is smaller than that of electronic filing, the significance level still demonstrates that taxpayer education is a meaningful contributor to compliance behavior. This finding is in tandem with the studies conducted by Adeyemi and Irekpita (2022) and Agbaje and Akinyemi (2021) that found a positive and significant effect of taxpayer education on tax compliance.

The coefficient for tax audit frequency is 0.242, with a t-statistic of 5.004 and a p-value of 0.000. This indicates a strong and statistically significant relationship, suggesting that frequent or strategically targeted audits are effective in improving tax

compliance among SMEs. The strength of this relationship supports theories of deterrence and enforcement as key mechanisms in promoting adherence to tax obligations. This finding confirms the studies carried out by Ezejiofor and Ezenwoke (2022) and Okoye and Gbegi (2021) who found a positive and significant effect of tax audit frequency on tax compliance.

Ease of registration also significantly influences tax compliance, with a coefficient of 0.193, a t-statistic of 4.215, and a p-value of 0.000. This positive relationship confirms that simplifying the registration process can lead to higher compliance levels. When SMEs face fewer bureaucratic and procedural hurdles during registration, they are more likely to participate in the formal tax system and maintain compliance. This finding corroborates the studies conducted by Olaoye and Ekundayo (2021) and Ogundana, Ayoola, and Fagboro (2023) who found a positive and significant effect of ease of registration on tax compliance.

The model's overall explanatory power is reflected in the R-squared value of 0.457, indicating that approximately 45.7% of the variation in tax compliance among SMEs is explained by the four independent variables. The adjusted R-squared of 0.450 accounts for the degrees of freedom and confirms the model's robustness. Furthermore, the F-statistic of 71.452 and the associated p-value of 0.0000 signify that the model is statistically significant as a whole, meaning that the combination of independent variables reliably predicts the dependent variable.

In summary, the regression results affirm that all four

dimensions of tax administration efficiency electronic tax filing, taxpayer education, tax audit frequency, and ease of registration have positive and statistically significant effects on tax compliance among SMEs in North Central of Nigeria. Electronic tax filing and tax audit frequency have the largest effects, followed by ease of registration and taxpayer education. These findings reinforce the importance of modernizing tax systems, investing in education, strengthening enforcement, and reducing administrative barriers to improve compliance in the SME sector.

5.0 Conclusion and Recommendation

Based on the regression analysis, the study concludes that tax administration efficiency significantly influences tax compliance among SMEs in North Central of Nigeria. All four variables examined electronic tax filing, taxpayer education, tax audit frequency, and ease of registration exhibited positive and statistically significant effects on tax compliance. Among them, electronic tax filing and tax audit frequency showed the strongest impact, emphasizing the importance of digitalization and regulatory enforcement. Ease of registration and taxpayer education also contributed meaningfully, highlighting the value of simplifying processes and building awareness. The model's R-squared value of 0.457 indicates that nearly 46% of the variation in tax compliance is explained by these variables. Therefore, enhancing the efficiency of tax administration through improved technology, targeted education, regular audits, and streamlined procedures is essential to fostering higher compliance levels among SMEs in the region.

Based on the findings, it is recommended that tax authorities of States in North Central of Nigeria prioritize the enhancement of electronic tax filing systems. This includes ensuring that digital platforms are user-friendly, reliable, and accessible to all categories of SMEs. For taxpayer education, targeted outreach programs should be intensified to address the knowledge gaps among SME operators. Collaborations with business associations and local government agencies can also improve the reach and impact of such educational efforts. Regarding tax audit frequency, tax administrators should adopt a strategic and risk-based audit approach to maintain a strong enforcement presence without discouraging voluntary compliance. Finally, to improve ease of registration, the government should further streamline the tax registration process by reducing documentation requirements and integrating registration services and online portals across platforms.

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