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Tax Administration and Personal Income Tax Compliance in Nigeria

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ABSTRACT

Low personal income tax compliance remains a critical challenge in Nigeria, undermining government revenue generation and economic development. Despite multiple tax reforms, non-compliance persists due to administrative inefficiencies, inadequate taxpayer education, and weak enforcement mechanisms. Existing literature provides limited empirical insights into the combined effects of these factors on tax compliance behavior in Nigeria, leaving a significant research gap. This study addresses this gap by conducting a comprehensive analysis of how the tax filing system, taxpayer education, and tax enforcement mechanisms collectively influence personal income tax compliance. Utilizing a survey research design, the study sampled 122 respondents from a population of 175, applying the Taro Yamane formula for sample determination. Primary data were collected via structured questionnaires and analyzed using the Chi-Square statistical technique. The results indicate that all three factors—tax filing systems, taxpayer education, and tax enforcement mechanisms—exert a significant positive impact on tax compliance. These findings reinforce the need for policymakers to streamline tax filing processes through digital platforms, enhance public awareness through comprehensive taxpayer education, and strengthen enforcement frameworks to deter evasion. To improve compliance rates, the study recommends the adoption of automated tax filing systems, strategic tax awareness campaigns, and stricter regulatory enforcement to foster a more efficient and accountable tax administration system in Nigeria.

Keywords: Tax administration, tax compliance, tax filing system, taxpayer education, enforcement mechanism.

1. Introduction

In an increasingly globalized world, tax compliance remains a pivotal concern for governments, particularly in developing economies such as Nigeria. Effective tax administration, which encompasses tax filing systems, taxpayer education, and enforcement mechanisms, is essential for improving personal income tax compliance. Despite concerted efforts to enhance tax administration, compliance among individual taxpayers remains suboptimal, leading to substantial revenue losses and limiting the government's capacity to provide essential public services (Mohdali et al., 2022; OECD, 2023).

One of the primary determinants of personal income tax compliance is the complexity of the tax filing system. A cumbersome and inefficient filing process discourages voluntary compliance, as taxpayers struggle to navigate regulatory requirements. In Nigeria, inadequate digital infrastructure, limited awareness of e-filing platforms, and restricted access to tax offices further hinder seamless compliance (Eze & Nwosu, 2023). The effectiveness of tax administration is significantly dependent on taxpayers' understanding of their obligations and the convenience of the filing process. Research suggests that simplified and technology-driven tax systems can enhance voluntary compliance by reducing the time and cost associated with tax filing (Okonkwo & Aluko, 2024).

Beyond tax filing systems, taxpayer education plays a fundamental role in fostering compliance. Studies indicate that individuals with greater knowledge of tax laws, filing procedures, and penalties for non-compliance are more likely to fulfill their tax obligations (Ojo & Igbinedion, 2022; Akinyemi & Ojo, 2023). However, in Nigeria, taxpayer education remains inadequate, with widespread misinformation and limited awareness of tax responsibilities (Bello et al., 2023). The lack of access to tax education programs, especially in rural areas, exacerbates the problem, leading to unintentional non-compliance and reduced voluntary participation. Strengthening taxpayer education through awareness campaigns, workshops, and digital resources can significantly improve compliance levels (Uche & Chinedu, 2024).

The effectiveness of tax enforcement mechanisms also plays a crucial role in personal income tax compliance. Weak enforcement—characterized by irregular audits, corruption, and inadequate penalties—emboldens tax evasion and income underreporting (Obi & Yusuf, 2023). Empirical evidence suggests that in countries where the probability of tax audits is low, taxpayers perceive minimal risk of detection, which encourages non-compliance (Ndalu & Ladi, 2024). In Nigeria, inefficiencies within tax enforcement agencies, coupled with challenges in tracking informal sector earnings, further complicate compliance efforts (Jack-Osimiri, 2023). Strengthening tax enforcement through advanced data analytics, increased audit frequency, and transparent penalty systems can significantly enhance compliance rates.

Despite the growing emphasis on tax compliance, research in Nigeria has predominantly focused on corporate tax compliance, with limited studies examining personal income tax compliance in relation to tax administration practices (Adebayo et al., 2023). While previous studies (Ogbonna & Appah, 2020; Thompson & Lee, 2022; Wilson &Turner, 2023) have explored the impact of general tax policies on compliance, there remains a research gap in understanding how specific tax administration elements—such as tax filing systems, taxpayer education, and tax enforcement—affect compliance among individual taxpayers. Additionally, existing literature often overlooks the role of digital transformation in tax filing and enforcement in Nigeria (Ibrahim & Salisu, 2023).

To address these gaps, this study aims to investigate the relationship between tax administration and personal income tax compliance in Nigeria. Specifically, it will assess the effect of tax filing systems, taxpayer education, and tax enforcement mechanisms on compliance behavior. By providing empirical evidence on these relationships, this study will offer policy recommendations for enhancing tax administration effectiveness and improving revenue generation in Nigeria.

This study is structured into five sections. The first section presents an overview of the study. The second section reviews the conceptual, theoretical, and empirical literature on tax administration and compliance. The third section outlines the research methodology, while the fourth section presents data analysis, findings, and hypothesis testing. The final section provides the study's summary, conclusion, and recommendations for policymakers and tax authorities in Nigeria

2. Literature Review

This section focuses on the conceptual review, theoretical review, and relevant empirical studies that contribute to a deeper understanding of the topic being studied.

2.1. Conceptual Review

This part delves into the conceptual literature, analyzing various perspectives on the key concepts pertinent to the study.

2.1.1. Personal Income Tax Compliance

Personal income tax compliance faces significant challenges in developing countries, largely due to inadequate taxpayer education, complex tax regulations, a large informal economy, and weak enforcement. Many taxpayers are unaware of their obligations due to insufficient education and outreach. Ambiguity in tax laws further exacerbates confusion, creating opportunities for non-compliance. Moreover, the informal economy, which is difficult to regulate, and inefficient enforcement mechanisms hinder efforts to improve compliance (James, 2023). Personal income tax compliance refers to individuals' willingness to meet their obligations, including accurate reporting, timely filing, and payment. Studies have shown that the quality of tax services, trust in government, and perceptions of fairness strongly impact compliance rates. Taxpayers are more likely to comply when they trust the system and believe their contributions benefit society. Conversely, non-compliance increases when taxpayers perceive government misuse of funds or a lack of transparency (Hassan et al., 2021; Mansour et al., 2021).

Psychological and social factors, such as personal and social norms, also play a key role in shaping personal income tax compliance. Research has shown that intrinsic motivations, like moral obligations and empathy, can significantly enhance compliance. This suggests that economic models focusing on deterrence alone are insufficient. Governments aiming to improve voluntary compliance should focus on building trust, offering quality tax services, and communicating clearly, rather than relying only on punitive measures (Dularif & Rustiarini, 2022). In countries like Nigeria, Kenya, and South Africa, both structural and socio-psychological factors influence compliance. Structural factors include audit rates, penalty likelihood, and the clarity of tax laws, while socio-psychological factors involve attitudes toward governance and trust in government. Poor governance and corruption diminish taxpayers' willingness to comply, as seen in Sub-Saharan African nations like Uganda, Tanzania, and Ghana. Strengthening governance, enhancing transparency, and improving service delivery have been shown to positively affect compliance rates (Ali et al., 2022; Mas'ud et al., 2021).

2.1.2. Tax Administration

Effective tax administration is essential for mobilizing domestic revenue and fostering sustainable economic growth, particularly in developing countries where low tax compliance and a narrow tax base constrain public investment (Mbilinyi & Kihongo, 2022). Reforming tax policies and enhancing administrative capacities are critical to improving compliance and expanding the tax base. Modern practices, such as leveraging technology and data analytics, play a significant role in enhancing efficiency and reducing tax evasion (Bird & Zolt, 2023). However, challenges persist, including a large informal economy and limited taxpayer education, which hinder enforcement efforts. Addressing these issues requires simplifying tax procedures, raising awareness about tax benefits, and actively engaging citizens in tax policy decision-making (Mokoena, 2023; Kasekende et al., 2022). Moreover, fostering public trust in tax institutions is vital, as perceptions of fairness and transparency significantly influence compliance behavior (Evans, 2021). By integrating these strategies, tax authorities can create an environment conducive to voluntary compliance, reducing the reliance on punitive enforcement measures (Onoja & Odoma, 2022).

A holistic approach to tax administration involves policy reforms, administrative enhancements, and benchmarking against international standards to ensure alignment with global best practices (OECD, 2022). Investing in the training of tax officials and upgrading technological infrastructure can

significantly improve tax collection and compliance (Bahl & Martinez-Vazquez, 2022). The effectiveness of tax administration can be measured through key performance indicators such as compliance rates, collection efficiency, and taxpayer satisfaction (Tanzi & Zee, 2021). While revenue generation remains a primary objective, qualitative measures such as taxpayer feedback and ease of compliance are equally important for assessing the overall efficiency of tax systems. Tax administration mechanisms encompass various tools and processes, including tax filing systems, taxpayer education programs, and enforcement strategies, all aimed at enhancing revenue collection and ensuring compliance. Strengthening these mechanisms is essential for building a resilient tax system that not only generates revenue but also supports equitable economic development and social welfare (OECD, 2022).

2.1.2.1 Tax Filling System

The tax filing system refers to the processes and technologies that enable taxpayers to prepare, submit, and manage their tax returns efficiently and accurately. It encompasses various components, including electronic filing platforms, submission deadlines, user interfaces, and support services such as taxpayer education and assistance programs (Yusuf et al., 2023). Measurement of the effectiveness of tax filing systems can be assessed through several indicators, such as the ease of use, the accuracy of submitted returns, the speed of processing, taxpayer satisfaction levels, and compliance rates (Ojo & Igbinedion, 2022). For instance, effective tax filing systems are often associated with higher compliance rates, which can be quantitatively measured through the percentage of timely filings and the reduction in errors or audits triggered by discrepancies (Emeka & Chinedu, 2023). Overall, a well-structured tax filing system is crucial for enhancing taxpayer compliance and improving revenue generation for governments.

2.1.2.2 Taxpayer Education

Taxpayer education refers to programs and initiatives aimed at informing and guiding taxpayers about their rights, responsibilities, and the intricacies of the tax system, including filing procedures, tax laws, and compliance requirements. These educational efforts are designed to enhance taxpayers' understanding and engagement with the tax system, ultimately promoting voluntary compliance and reducing the likelihood of errors and evasion (Ajayi & Ogundipe, 2023). Measurement of the effectiveness of taxpayer education can be assessed through various indicators, such as changes in compliance rates, the number of inquiries or requests for assistance received by tax authorities, and taxpayer satisfaction surveys that evaluate the clarity and usefulness of the information provided (Radebe & Nkosi, 2023). Furthermore, pre- and post-education assessments can be employed to gauge knowledge retention and application among taxpayers, allowing for the continuous improvement of educational programs and strategies (Zewdie & Tsegaye, 2023).

2.1.2.3 Tax Enforcement Mechanisms

Tax enforcement mechanisms refer to the various strategies and tools employed by tax authorities to ensure compliance with tax laws and regulations, deter tax evasion, and collect owed taxes. These mechanisms can include audits, penalties, legal actions, and the use of technology to monitor compliance, as well as public awareness campaigns to inform taxpayers about the consequences of non-compliance (Uche & Nwokolo, 2022). Measurement of the effectiveness of tax enforcement mechanisms can be assessed through indicators such as audit rates, the amount of tax revenue collected as a result of enforcement actions, the frequency and severity of penalties imposed, and changes in compliance rates over time (Williams & Horodnic, 2023). Additionally, taxpayer perceptions of enforcement fairness and the likelihood of being audited can also be measured through surveys, providing insight into how enforcement practices impact taxpayer behavior and compliance (Nwafor & Eze, 2023).

2.2 Theoretical Review

This research study is grounded in the principles of deterrence theory.

2.2.1 Deterrence Theory

Deterrence theory, first introduced by Becker (1968) and later expanded by Allingham and Sandmo (1972), posits that taxpayers act as rational decision-makers who weigh the costs and benefits of tax compliance. Under this framework, individuals are more likely to comply with tax regulations when the perceived risks of non-compliance—such as penalties, fines, and the probability of detection—outweigh the potential benefits of evasion. This theory assumes that tax authorities can enhance compliance by increasing audit probabilities, enforcing strict penalties, and ensuring visible enforcement measures. However, while deterrence theory provides a strong economic rationale for tax compliance, it primarily emphasizes punitive approaches, often neglecting the broader psychological, social, and institutional factors that shape taxpayer behavior (Kirchler et al., 2008). As a result, an over-reliance on deterrence mechanisms without addressing systemic trust issues may create an adversarial relationship between taxpayers and tax authorities, ultimately diminishing voluntary compliance (Alm & Torgler, 2011).

In Nigeria, where tax compliance remains a significant challenge, deterrence theory has guided the implementation of various enforcement strategies, such as frequent audits, financial penalties, and whistleblower programs by the Federal Inland Revenue Service (FIRS) (Ayuba et al., 2020). While these measures have improved compliance to some extent, their effectiveness is limited by deep-seated issues such as distrust in government institutions, perceptions of corruption, and inadequate public service delivery. Okoye and Akenbor (2022) found that many Nigerians remain non-compliant despite stringent enforcement, largely due to skepticism regarding the government's ability to manage tax revenues efficiently. Similarly,

Ogbonna and Appah (2020) highlight that weak enforcement mechanisms and the low probability of detection further encourage evasion. This suggests that while deterrence strategies are necessary, they must be complemented by initiatives that build taxpayer trust, improve governance, and foster a culture of voluntary compliance. A balanced approach that integrates enforcement with taxpayer education, transparency, and public accountability is crucial for strengthening personal income tax compliance in Nigeria.

2.3 Empirical Review

This section presents a comprehensive empirical review of existing literature pertinent to tax administration and personal income tax compliance.

2.3.1 Tax Filling System and Personal Income Tax Compliance

Smith and Adams (2022) conducted a study in the United States to examine the impact of the tax filing system on personal income tax compliance. The study utilized a quantitative research design and targeted the population of individual taxpayers who had filed their taxes within the last three years. Using stratified random sampling, a sample size of 1,200 taxpayers was selected. Data was analyzed using logistic regression analysis. The findings revealed that a simplified and user-friendly tax filing system significantly increased taxpayer compliance by reducing errors and confusion in tax return preparation. The study concluded that enhancing the accessibility and simplicity of the tax filing system positively impacts compliance, especially for middle-income taxpayers.

Ojo and Igbinedion (2022) examined a study on the impact of a digital tax filing system on personal income tax compliance in Nigeria. The study utilized a longitudinal research design, examining compliance trends over three years following the introduction of a new digital filing system. The population comprised individual taxpayers, with a sample size of 900 selected using simple random sampling. Data was analyzed using time-series analysis. The findings indicated that the digital filing system led to a marked increase in compliance rates, particularly among younger taxpayers who favored technology-based solutions.

Okoye and Akenbor (2023) conducted a study in Nigeria to investigate the effect of the tax filing system on personal income tax compliance. The study utilized a quantitative research design targeting registered individual taxpayers across various states. A sample size of 1,000 respondents was selected using stratified random sampling. Data analysis was performed using multiple regression analysis. The findings revealed that a simplified and accessible tax filing system significantly enhanced compliance rates among taxpayers. The study concluded that improving the user-friendliness of the tax filing process is crucial for increasing tax compliance in Nigeria.

Miller and Jensen (2023) examined the role of digital tax filing systems in promoting tax compliance in Sweden. The study used a longitudinal research design, tracking changes in tax compliance before and after the introduction of a new digital tax filing system. The population comprised individual taxpayers, with a sample size of 750 chosen through systematic random sampling. Time-series analysis was used for data analysis. The study found that the adoption of digital tax filing platforms significantly improved compliance, particularly among taxpayers. The results suggested that digital solutions reduce the complexity of tax filing and enhance the accuracy of returns, leading to higher voluntary compliance.

Milamo and Magobe (2024) assessed the effect of the e-filing tax system on taxpayers' compliance burden in Tanzania. Surveying 250 medium and large taxpayers engaged in online VAT return filing; the study applied Partial Least Squares Structural Equation Modeling (PLS-SEM) for data analysis. The study found that system quality and service quality significantly influenced the extent of e-filing usage, which in turn reduced the tax compliance burden. However, it also highlighted that inadequate user-friendliness and service-oriented functionalities in the e-filing system could negatively impact compliance, emphasizing the need for improvements in these areas.

Ibrahim and Bello (2024) examined the relationship between tax filing systems and personal income tax compliance in Nigeria using a correlational research design. The study surveyed 1,100 individual taxpayers across various regions, employing correlation and regression analyses. Contrary to expectations, the findings indicated no significant relationship between the tax filing system and compliance rates. The study suggested that while digital tax filing systems have been implemented, they do not necessarily translate into improved compliance. It recommended that policymakers address other underlying factors, such as trust in tax authorities and enforcement mechanisms, rather than relying solely on system enhancements.

2.3.2 Taxpayer Education and Personal Income Tax Compliance

Brown and Williams (2022) studied the impact of taxpayer education on personal income tax compliance in the United Kingdom using a mixed-methods research design. They surveyed 1,000 individual taxpayers and tax consultants selected through snowball sampling. Data analysis via thematic analysis and regression techniques revealed that both a simplified tax filing system and taxpayer education programs positively influenced compliance. Specifically, the study found that taxpayers who were more informed about tax regulations and had access to a user-friendly filing system were more likely to comply voluntarily.

Zewdie and Tsegaye (2023) explored the influence of taxpayer education on personal income tax compliance in Ethiopia, adopting a mixed-methods research design with a population of individual taxpayers in Addis Ababa. A sample of 850 respondents was selected using cluster sampling, and structural equation modeling (SEM) was used for data analysis. The findings indicated that taxpayer education through seminars and workshops had a significant positive effect on compliance. However, the study also found that taxpayers with limited education levels did not show a significant increase in compliance, suggesting that education programs must be tailored to different literacy levels.

Ajayi and Ogundipe (2023) examined the impact of taxpayer education on personal income tax compliance in Nigeria using a cross-sectional research design. They surveyed 450 individual taxpayers in urban areas selected through purposive sampling. Data was analyzed using descriptive statistics and chi-square tests. The results indicated that taxpayers who participated in educational programs on tax regulations and filing procedures were significantly more compliant than those who did not. However, the study also found that taxpayer education alone was not sufficient to improve compliance among self-employed individuals, who often prioritized financial constraints over tax obligations.

Johnson et al. (2023) investigated the effect of taxpayer education programs on personal income tax compliance in Australia using a quasi-experimental design. The study targeted 900 individual taxpayers across various income brackets, with participants chosen through purposive sampling. Data analysis using ANOVA and regression analysis revealed that taxpayers who participated in education programs demonstrated significantly higher compliance levels. The study emphasized that continuous taxpayer education, especially online tutorials and workshops, plays a crucial role in increasing compliance.

Radebe and Nkosi (2023) studied the influence of taxpayer education on personal income tax compliance in Lesotho, using a quantitative research design. They surveyed 600 individual taxpayers across major towns, selected through stratified sampling. Multiple regression analysis showed that both taxpayer education and an easy-to-use tax filing system significantly improved tax compliance. However, the study also found that in regions where digital literacy was low, the impact of online tax education was minimal, limiting the effectiveness of such programs.

Hernandez and Garcia (2024) explored the impact of taxpayer education campaigns on personal income tax compliance in Spain using a cross-sectional research design. A sample of 2,500 individual taxpayers from different regions was selected using cluster sampling, and data was analyzed using SEM. The findings indicated that taxpayer education, especially programs tailored to specific demographics such as young professionals and small business owners, significantly enhanced compliance rates. The study concluded that targeted taxpayer education reduces the information gap and increases voluntary compliance.

Emeka and Chinedu (2024) examined the effectiveness of taxpayer education programs on compliance in Nigerian states through a quasi-experimental research design. They compared compliance levels before and after implementing education programs, surveying 700 individual taxpayers from selected states using cluster sampling. Data was analyzed through paired t-tests. The findings showed no significant improvement in compliance rates after the education programs, suggesting that factors such as distrust in tax authorities and perceived inefficiencies in tax administration play a more significant role in compliance behavior.

2.3.3 Tax Enforcement Mechanism and Personal Income Tax Compliance

Thompson and Lee (2022) conducted an empirical study in Canada to assess the relationship between tax enforcement mechanisms and personal income tax compliance. Using a descriptive research design, they surveyed a population of individual taxpayers and tax administrators, selecting 1,000 respondents through simple random sampling. Multiple regression analysis revealed that stronger enforcement mechanisms, such as increased audits and penalties, were significantly associated with higher compliance levels. The study concluded that making enforcement actions more visible serves as a deterrent against non-compliance.

Wilson and Turner (2023) examined the effectiveness of tax enforcement mechanisms in Germany, particularly focusing on audits and penalties. Adopting a comparative research design, they analyzed data from 1,300 taxpayers and tax professionals using Cox proportional hazards modeling. The findings showed that frequent audits and strict penalties significantly increased tax compliance, especially among high-income earners. However, the study also noted that excessive enforcement measures could lead to distrust in tax authorities, potentially undermining long-term compliance efforts

Uche and Nwokolo (2023) investigated the role of tax enforcement mechanisms in personal income tax compliance in Nigeria. Using a descriptive research design, they selected 1,200 taxpayers and tax officials through random sampling. Logistic regression analysis indicated that higher enforcement levels, including rigorous audits and penalties, had a strong positive correlation with compliance rates. The study emphasized that strengthening enforcement mechanisms is crucial for improving compliance in Nigeria.

Kamara and Sesay (2023) assessed the effect of tax enforcement mechanisms on personal income tax compliance in Sierra Leone. Their study, based on a comparative research design, surveyed 700 taxpayers and tax professionals, analyzing data using Cox proportional hazards modeling. The results demonstrated that increased penalties for non-compliance and frequent audits significantly boosted compliance rates. However, the study also found that some taxpayers perceived enforcement measures as overly punitive, leading to attempts to evade taxes rather than comply voluntarily.

Matlala and Molefe (2024) conducted an empirical study in South Africa on tax enforcement mechanisms and compliance. Using a quantitative research design, they surveyed 1,200 respondents, including taxpayers and tax officials, with data analyzed through logistic regression. The findings revealed that while frequent audits and strict penalties were associated with increased compliance, their effectiveness varied across income groups. Among lower-income earners, the impact was negligible, suggesting that enforcement measures alone may not be sufficient to drive compliance across all taxpayer categories.

Nwafor and Eze (2024) explored the influence of enforcement mechanisms on tax compliance among small business owners in Nigeria. Employing a mixed-methods research design, they surveyed 600 small business owners using stratified sampling. Regression and thematic analyses indicated that while stronger enforcement measures, including penalties for late payments, led to improved compliance in some cases, they had no significant effect

on compliance among informal business operators. The study suggested that non-compliance in the informal sector may be driven by factors beyond enforcement, such as lack of awareness and financial constraints.

2.4 Gaps in Literature

The literature on tax administration and personal income tax compliance reveals critical gaps that hinder a comprehensive understanding of compliance behavior. Conceptually, inconsistent definitions of personal income tax compliance and administration across studies complicate the applicability of research findings in diverse contexts (Nnadi & Hwang, 2023; Umar & Afolabi, 2022). While some researchers emphasize timely filing and payment, others integrate ethical considerations, trust in tax authorities, and perceptions of fairness as key compliance determinants (Adegbite et al., 2023; Ofori & Boateng, 2022). These inconsistencies result in fragmented research outcomes, limiting the formulation of cohesive policies. Additionally, many studies overlook digitalization's role in shaping tax administration, despite its growing influence on compliance behavior (Williams et al., 2023; Miller & Jensen, 2023). To address these gaps, scholars must develop a universally accepted conceptual framework that captures the multidimensional nature of tax compliance, fostering coherence in both academic discourse and policy implementation. Furthermore, integrating socio-technological dimensions into tax compliance models could enhance the accuracy of predictive frameworks and policy prescriptions.

Theoretical and empirical gaps further constrain the literature on tax compliance. While traditional models such as fiscal exchange theory and behavioral economics provide useful insights, they inadequately incorporate alternative perspectives like deterrence theory, which may better explain compliance behavior in developing economies (Khan & Kadir, 2022; Mensah et al., 2023). Existing research often examines individual compliance drivers in isolation, failing to explore the interplay between enforcement measures, taxpayer trust, and voluntary compliance (Adebayo et al., 2022; Mwangi & Kimani, 2023). Moreover, there is a disproportionate focus on personal income tax compliance in developed economies, leaving critical gaps in understanding how socio-economic and technological factors shape compliance in African nations, particularly Nigeria (Bello & Yusuf, 2023; Okoye et al., 2024). Limited research investigates how tax filing systems, taxpayer education initiatives, and informal sector dynamics affect compliance in resource-constrained settings (Ojo & Igbinedion, 2022; Ibrahim & Bello, 2024). Additionally, the predominance of cross-sectional research designs restricts the ability to capture behavioral changes over time (Milamo & Magobe, 2024). The current study seeks to fill these gaps by incorporating tax filling system, taxpayer education, and tax enforcement mechanism into a comprehensive framework using a survey research design.

In light of the foregoing, the following hypotheses were formulated in their null form to guide the empirical investigation:

H_{01}:   tax filling system does not have significant effect on the personal income tax compliance in Nigeria

H_{02}:   taxpayer education does not have significant effect on the personal income tax compliance in Nigeria

H_{03}:   tax enforcement mechanism does not have significant effect on the personal income tax compliance in Nigeria.

2.5 Conceptual Framework

The conceptual framework model is designed to bridge identified research gaps and align with the study's objectives and hypotheses. This framework visually represents the relationship between the independent and dependent variables, forming the foundation of the study. As depicted in Figure 1, the study focuses on personal income tax compliance, with tax compliance rate (TCR) serving as the proxy for the dependent variable. The independent variable, tax administration, is operationalized through three key proxies: tax filing system (TFS), taxpayer education (TED), and tax enforcement mechanism (TEM).

Figure 1: Conceptual Framework Illustrating the Relationship Between Tax Administration and Personal Income

Tax Administration   **Personal Income Tax Compliance**
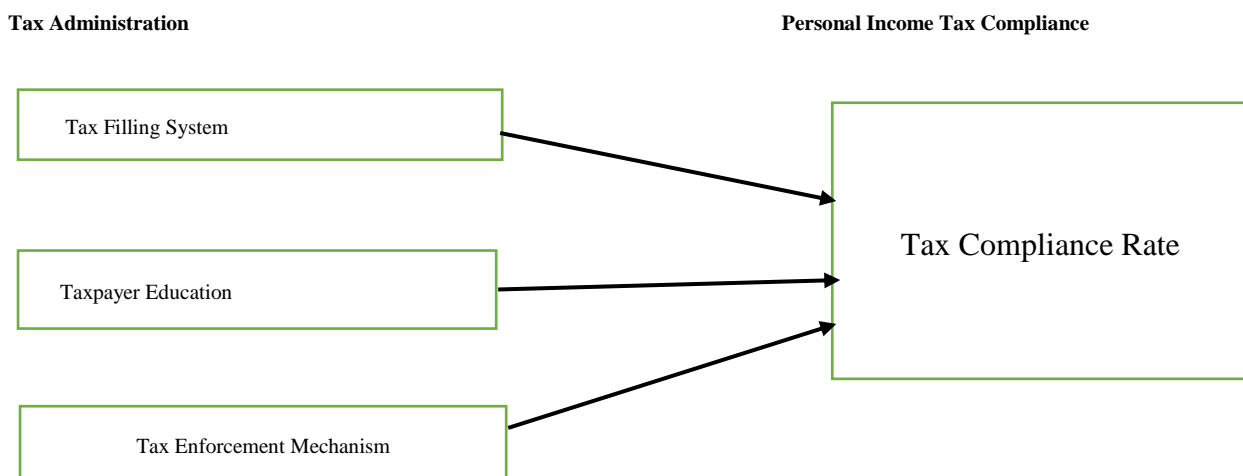
Source: Researcher's Design (2025)

3. Methodology

This study adopts a descriptive survey research design to examine the relationship between tax administration and personal income tax (PIT) compliance in Nigeria. This design enables the systematic collection of quantitative data, ensuring comprehensive and generalizable findings. Structured questionnaires serve as the primary data collection instrument, capturing respondents' perceptions of tax administration systems and their influence on compliance behavior. The study targets 175 individual taxpayers in Akure, Ondo State, including salaried employees, self-employed individuals, and entrepreneurs. Akure is selected due to its unique tax compliance characteristics, particularly low taxpayer literacy levels. A multi-stage sampling technique is employed to enhance representativeness. First, stratified sampling segments the population based on gender, occupations, and income level. Simple random sampling is then applied within each stratum to ensure equal representation. The sample size is determined using Yamane's formula at a 5% error margin, yielding a statistically valid sample of 122 respondents. The formula applied is:

$$n = \frac{N}{1 + N\,(e)^2}$$

Where n is the required sample size, N is the total population (175), and e is the error margin (0.05).

Primary data is collected through a structured questionnaire using closed-ended questions on a Likert scale to measure tax compliance determinants. To ensure validity and reliability, a two-stage approach is implemented. First, a pilot study with a small taxpayer group assesses clarity and reliability, with feedback incorporated to refine the instrument. Independent researchers review the questionnaire for comprehensiveness. Second, internal consistency is evaluated using Cronbach's alpha coefficient. The finalized questionnaire is distributed physically in Akure, with researchers overseeing the administration process to uphold ethical standards. Statistical techniques such as tabulation, percentage frequency distribution, and chi-square (χ^2) tests analyze the collected data, empirically validating the hypotheses. This rigorous methodology enhances result reliability, offering valuable insights into tax compliance behavior and guiding policies to improve personal income tax administration in Nigeria.

3.1 Model Specification

In order to examine the relationship between tax administration and personal income tax compliance in Nigeria. The following model is developed:

The dependent variable is personal income tax compliance (PITC) while the independent variable is tax administration (TADM).

PITC = f (TADM) …………………………………………………………………….….. (i)

TCR = f (TFS, TED, TEM) …………………………………………………………….... (ii)

TCR = $\beta_0 + \beta_1$TFS + β_2TED + β_3TEM + ε_t ………………………………………………… (iii)

Where; PITC = Personal Income Tax Compliance; TADM = Tax Administration; TCR = Tax Compliance Rate; TFS = Tax Filling System; TED = Taxpayer Education; TEM = Tax Enforcement Mechanism; ε_t = Error term; β_0 = Constant; $\beta_1, \beta_2, \beta_3$ = Coefficient to be estimated; f = Functional Relationship

On apriori, the study presumptively expects $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$ which presupposes that there will be a positive relationship between the dependent variable and independent variables.

4. Data Analysis and Discussion of Findings

This section focuses on the analysis and presentation of data gathered through questionnaires during the field survey.

4.1 Demographic Features of Respondents

The demographic profile of respondents reveals key insights into the sample composition, highlighting variations across age, gender, occupation, education, and income levels. The age distribution indicates that the majority of respondents (36.9%) are between 46–55 years, followed by those aged 36–45 years (28.7%), suggesting that middle-aged individuals dominate the tax-paying population. Gender representation shows a male majority (63.1%) compared to females (36.9%), reflecting potential gender disparities in employment or income-generating activities. Occupationally, salaried employees (30.3%), self-employed individuals (26.2%), and entrepreneurs (27.1%) constitute the bulk of respondents, indicating a diverse mix of taxpayers. Education-wise, most respondents hold at least a Bachelor's Degree/HND (32.8%) or a Diploma/OND/NCE (26.2%), suggesting a relatively educated tax base. Income distribution reveals that 55.7% of respondents earn below ₦1,000,000 annually, with only 13.1% earning above ₦5,000,000, underscoring the prevalence of lower-income taxpayers. These demographic insights provide a foundational understanding of taxpayer characteristics, which is critical for assessing tax compliance behavior and informing targeted policy interventions.

Table 1: Demographic Profile of Respondents

S/N	Variables	Scale	Freq.	Percent	Cumm. Percent

1	Age Group	18–25 years	12	9.8	9.8
		26–35 years	13	10.7	20.5
		36–45 years	35	28.7	49.2
		46–55 years	45	36.9	86.1
		Above 55 years	17	13.9	100.0
		Total	**122**	**100.0**	
2	Gender	Male	77	63.1	63.1
		Female	45	36.9	100,0
		Total	**122**	**100.0**	
3	Occupation	Salaried Employee	37	30.3	30.3
		Self-Employed	32	26.2	56.5
		Entrepreneur	33	27.1	83.6
		Retired	20	16.4	100.0
		Total	**122**	**100.0**	
4	Level of Educational	Primary School Cert.	10	8.2	8.2
		Secondary School Cert.	15	12.3	20.5
		Diploma/OND/NCE.	32	26.2	46.7
		Bachelor's Degree/HND	40	32.8	79.5
		Master's Degree and Above	25	20.5	100.0
		Total	**122**	**100.0**	
5	Annual Income Bracket	Below ₦500,000	36	29.5	29.5
		₦500,000–₦1,000,000	32	26.2	55.7
		₦1,000,001–₦2,000,000	17	13.9	69.6
		₦2,000,001–₦5,000,000	21	17.3	86.9
		Above ₦5,000,000	16	13.1	100.0
		Total	**122**	**100.0**	

Note: Freq. implied Frequency; Percent implied Percentages; Cumm. Percent implies Cumulative Percentages

Source: Researcher's Computation, (2025).

4.2 Analysis of Research Questions

Research Question One: To what extent does tax filling system effect personal income tax compliance in Nigeria?

Table 2: Respondent's opinion on tax filling system and personal income tax compliance

S/N	Variables	Scale	Freq.	Percent	Mean	S.D.	Skew.	Kurt.
1	Taxpayers find the tax filing system easy to understand.	Strongly Agree	60	49.1	4.38	0.78	-1.76	4.23
		Agree	55	45.1				
		Undecided	1	0.8				
		Disagree	5	4.2				
		Strongly Disagree	1	0.8				

			Freq.	Percent	Mean	S.D.	Skew.	Kurt.
		Total	122	100.0				
2	The tax filing system encourages taxpayers to comply with personal income tax regulations.	Strongly Agree	54	44.3	4.20	0.91	-1.54	2.87
		Agree	52	42.6				
		Undecided	9	7.4				
		Disagree	4	3.3				
		Strongly Disagree	3	2.5				
		Total	122	100.0				
3	Delays in the tax filing process discourage compliance with personal income tax.	Strongly Agree	47	38.5	4.13	0.81	-1.14	1.79
		Agree	58	47.5				
		Undecided	12	9.8				
		Disagree	4	3.3				
		Strongly Disagree	1	0.8				
		Total	122	100.0				
4	The availability of online tax filing systems has made tax compliance easier for taxpayer.	Strongly Agree	40	32.8	4.13	0.82	-1.28	2.32
		Agree	68	55.7				
		Undecided	6	4.9				
		Disagree	7	5.7				
		Strongly Disagree	1	0.8				
		Total	122	100.0				
5	The current tax filing system ensures transparency in tax compliance.	Strongly Agree	45	36.9	4.13	0.88	-1.25	2.01
		Agree	58	47.5				
		Undecided	12	9.8				
		Disagree	5	4.1				
		Strongly Disagree	2	1.6				
		Total	122	100.0				

Note: Freq. implied Frequency; Percent implied Percentages; S.D. implies Standard deviation; Skew. implies Skewness; Kurt. implies Kurtosis

Source: Researcher's Computation, (2025).

The statistical analysis of taxpayer perceptions regarding the tax filing system reveals significant insights into compliance behavior in Table 2. The first variable, assessing the ease of understanding the tax system, recorded a high mean score (4.38) and a negatively skewed distribution (-1.76), indicating that most respondents found the system easy to understand. This is reinforced by a high percentage of agreement (94.2%), with minimal opposition (5.0%). Similarly, the second variable, evaluating whether the system encourages compliance, had a strong mean (4.20) and a moderate skewness (-1.54), with over 86% of respondents agreeing. The third variable, analyzing delays in tax filing as a discouraging factor, showed a slightly lower mean (4.13) and a skewness of -1.14, suggesting a weaker but still significant agreement (86%). The fourth variable, regarding online tax filing systems, had a comparable mean (4.13) but a slightly higher percentage of agreement (88.5%), indicating a strong belief in technology's role in facilitating compliance. Lastly, perceptions of transparency in tax compliance mirrored these trends (mean = 4.13, skewness = -1.25), with 84.4% of respondents supporting the claim. The high kurtosis values, particularly for the first variable (4.23), suggest a peaked distribution, reinforcing the consistency in responses. Overall, these findings indicate that taxpayers generally perceive the tax filing system as user-friendly, compliant-supportive, and transparent, with online systems further enhancing efficiency, although delays remain a notable challenge.

Research Question Two: What is the effect of taxpayer education and personal income tax compliance in Nigeria?

Table 3: Respondent's opinion on taxpayer education and personal income tax compliance

S/N	Variables	Scale	Freq.	Percent	Mean	S.D.	Skew.	Kurt.
1	Taxpayer aware of the tax laws and regulations governing personal income tax in Nigeria.	Strongly Agree	49	40.2	4.27	0.76	-1.65	4.90
		Agree	64	52.5				
		Undecided	5	4.1				
		Disagree	2	1.6				
		Strongly Disagree	2	1.6				
		Total	**122**	**100.0**				
2	Taxpayer education programs help taxpayers to understand tax obligations better.	Strongly Agree	43	35.2	4.07	0.97	-1.39	2.06
		Agree	59	48.4				
		Undecided	10	8.2				
		Disagree	6	4.9				
		Strongly Disagree	4	3.3				
		Total	**122**	**100.0**				
3	Lack of access to taxpayer education affects taxpayers' willingness to comply with tax laws.	Strongly Agree	50	41.0	4.25	0.79	-1.20	2.16
		Agree	57	46.7				
		Undecided	11	9.0				
		Disagree	3	2.5				
		Strongly Disagree	1	0.8				
		Total	**122**	**100.0**				
4	Government provides sufficient resources to educate taxpayers on personal income tax compliance.	Strongly Agree	40	32.8	4.02	0.97	-1.16	1.27
		Agree	58	47.5				
		Undecided	13	10.7				
		Disagree	8	6.6				
		Strongly Disagree	3	2.5				
		Total	**122**	**100.0**				
5	Taxpayer education campaigns have a positive impact on personal income tax compliance.	Strongly Agree	53	43.4	4.21	0.91	-1.54	2.87
		Agree	53	43.4				
		Undecided	9	7.4				
		Disagree	4	3.3				
		Strongly Disagree	3	2.5				
		Total	**122**	**100.0**				

Note: Freq. implied Frequency; Percent implied Percentages; S.D. implies Standard deviation; Skew. implies Skewness; Kurt. implies Kurtosis

Source: Researcher's Computation, (2025).

The analysis of Table 3 highlights the significant role of taxpayer education in enhancing personal income tax compliance. Respondents overwhelmingly agree that awareness of tax laws is high (Mean = 4.27, S.D. = 0.76), with a strong negative skew (-1.65) and high kurtosis (4.90), indicating concentrated agreement. Similarly, taxpayer education programs are perceived as crucial for improving tax obligation understanding (Mean = 4.07, S.D. = 0.97), with a slight dispersion in responses. The belief that lacks of access to education negatively impacts compliance is strongly supported (Mean = 4.25, S.D. = 0.79), showing a firm consensus. However, opinions on government resource allocation for tax education are slightly more varied (Mean = 4.02, S.D. = 0.97), with the lowest kurtosis (1.27), indicating a broader distribution of responses. Lastly, taxpayer education

campaigns are seen as positively influencing compliance (Mean = 4.21, S.D. = 0.91), reinforcing the critical role of awareness initiatives. Overall, the findings underscore that comprehensive taxpayer education is essential for improving compliance, as evidenced by consistently high mean scores and negatively skewed distributions, reflecting strong respondent agreement on its importance.

Research Question Three: To what extent does tax enforcement mechanisms influence the personal income tax compliance in Nigeria?

Table 4: Respondent's opinion on tax enforcement mechanism and personal income tax compliance

S/N	Variables	Scale	Freq.	Percent	Mean	S.D.	Skew.	Kurt.
1	Strict tax enforcement mechanisms encourage taxpayer to comply with personal income tax regulations.	Strongly Agree	64	52.5	4.40	0.75	-1.55	3.57
		Agree	48	39.3				
		Undecided	7	5.7				
		Disagree	2	1.6				
		Strongly Disagree	1	0.8				
		Total	**122**	**100.0**				
2	Penalties for non-compliance are effective in ensuring personal income tax compliance.	Strongly Agree	30	24.6	3.98	0.85	-1.31	2.79
		Agree	71	58.2				
		Undecided	14	11.5				
		Disagree	4	3.3				
		Strongly Disagree	3	2.5				
		Total	**122**	**100.0**				
3	Lack of effective enforcement mechanisms leads to low tax compliance rates.	Strongly Agree	38	31.1	3.98	1.00	-1.29	1.67
		Agree	60	49.2				
		Undecided	13	10.7				
		Disagree	6	4.9				
		Strongly Disagree	5	4.1				
		Total	**122**	**100.0**				
4	The fear of legal action motivates taxpayer to comply with personal income tax regulations.	Strongly Agree	43	35.2	4.10	0.93	-1.38	2.12
		Agree	61	50.0				
		Undecided	8	6.6				
		Disagree	7	5.7				
		Strongly Disagree	3	2.5				
		Total	**122**	**100.0**				
5	Tax enforcement agencies are effective in ensuring personal income tax compliance.	Strongly Agree	40	32.8	4.00	1.05	-1.59	2.40
		Agree	65	53.3				
		Undecided	6	4.9				
		Disagree	4	3.3				
		Strongly Disagree	8	6.6				
		Total	**122**	**100.0**				

Note: Freq. implied Frequency; Percent implied Percentages; S.D. implies Standard deviation; Skew. implies Skewness; Kurt. implies Kurtosis

Source: Researcher's Computation, (2025).

The analysis of Table 4 reveals that respondents strongly perceive tax enforcement mechanisms as crucial for ensuring personal income tax compliance. The first variable, which assesses whether strict enforcement encourages compliance, has the highest mean (4.40) and lowest standard deviation (0.75), indicating strong agreement among respondents, with a negatively skewed (-1.55) and leptokurtic (3.57) distribution, suggesting a concentration of responses at the higher end of the scale. Similarly, the perception that penalties effectively enhance compliance is supported (Mean = 3.98, S.D. = 0.85), though slightly more dispersed, with a skewness of -1.31 and kurtosis of 2.79. The assertion that ineffective enforcement leads to low compliance also garners strong agreement (Mean = 3.98, S.D. = 1.00), with responses slightly more spread out. Fear of legal action is a significant motivator (Mean = 4.10, S.D. = 0.93), with a moderately high consensus and a skewness of -1.38. Lastly, respondents affirm that tax enforcement agencies play an essential role in ensuring compliance (Mean = 4.00, S.D. = 1.05), though with the highest kurtosis (-1.59), indicating a slightly more varied response pattern. Overall, the results underscore the importance of robust enforcement mechanisms in enhancing tax compliance, as evidenced by consistently high mean scores and negative skewness, which suggests that a majority of respondents favor stricter enforcement strategies.

4.3 Test of Hypotheses and Discussion of Findings

Table 5: Chi-Square Test Statistics on the Three Hypotheses

Total Observation   122

Test Statistics

	Hypothesis 1	Hypothesis 2	Hypothesis 3
	Tax filling system has no effect on personal income tax compliance	There is no significant effect of taxpayer education on personal income tax compliance	Tax enforcement mechanism has no effect on personal income tax compliance
Chi-Square	93.711[a]	53.802[b]	52.083[b]
Df	11	12	12
Asymp. Sig.	0.000	0.000	0.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.1.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 9.3.

Source: Researcher's Computation, (2025).

The Chi-Square test statistics presented in Table 5 provide compelling evidence against the null hypotheses, demonstrating significant effects of the tax filing system, taxpayer education, and tax enforcement mechanisms on personal income tax compliance in Nigeria. The test results yield high Chi-Square values: 93.711 (df = 11) for Hypothesis 1, 53.802 (df = 12) for Hypothesis 2, and 52.083 (df = 12) for Hypothesis 3, with asymptotic significance (p-values) of 0.000 in each instance. Given that these p-values fall below the conventional 0.05 threshold, the null hypotheses are rejected, affirming the substantial influence of these factors on personal income tax compliance. Additionally, the expected frequencies satisfy statistical assumptions, reinforcing the robustness of the results. These findings highlight the crucial role of efficient tax administration, public awareness, and enforcement measures in improving tax compliance rates, aligning with prior studies such as Smith and Adams (2022) and Okoye and Akenbor (2023), while conflicting with the conclusions of Milamo and Magobe (2024) and Ibrahim and Bello (2024).

The study further establishes that the tax filing system exerts a significant impact on personal income tax compliance in Nigeria, corroborating the findings of Smith and Adams (2022) and Okoye and Akenbor (2023). Similarly, taxpayer education is shown to be a critical determinant of personal income tax compliance, in line with the research of Zewdie and Tsegaye (2023), Ajayi and Ogundipe (2023), and Johnson et al. (2023), yet contradicting the conclusions of Emeka and Chinedu (2024) and Hernandez and Garcia (2024), who found no significant relationship. Likewise, tax enforcement mechanisms exhibit a significant effect on personal income tax compliance, confirming the findings of Thompson and Lee (2022), Wilson and Turner (2023), and Uche and Nwololo (2023), all of whom emphasize the importance of tax enforcement mechanism in fostering tax compliance. However, the results diverge from the studies of Kamara and Sesay (2023) and Nwafor and Eze (2024), which report no significant link. These disparities suggest contextual variations in tax administration effectiveness and enforcement rigor, underscoring the need for further empirical investigation.

4.4 Policy Implication of Findings

The findings underscore critical policy implications for enhancing personal income tax compliance in Nigeria. First, the significant influence of the tax filing system suggests the need for policymakers to streamline tax filing processes, leveraging digital platforms to enhance efficiency and reduce compliance burdens. Second, the positive impact of taxpayer education highlights the importance of sustained public awareness campaigns and taxpayer literacy programs to improve voluntary compliance. Government agencies should integrate tax education into financial literacy curricula and conduct targeted outreach programs. Third, the substantial effect of tax enforcement mechanisms emphasizes the necessity of robust regulatory frameworks, stricter penalties for non-compliance, and improved enforcement capacity. While the findings align with prior studies, the observed

inconsistencies with other research suggest that contextual factors such as governance quality and institutional effectiveness play a role in shaping compliance behavior. Therefore, policymakers must adopt a holistic approach that combines simplification, education, and enforcement to foster a more compliant tax culture and enhance revenue mobilization.

5. Conclusion and Recommendations

The study provides empirical evidence that the tax filing system, taxpayer education, and tax enforcement mechanisms significantly influence personal income tax compliance in Nigeria. The Chi-Square test results confirm the rejection of the null hypotheses, reinforcing the importance of these factors in shaping taxpayer behavior. The findings align with previous studies, demonstrating that an efficient tax filing system enhances compliance by reducing complexity, while taxpayer education fosters awareness and voluntary participation. Moreover, effective enforcement mechanisms act as deterrents against evasion, ensuring greater adherence to tax regulations. However, the divergence of results in some studies suggests that contextual variables, such as governance structures and institutional efficiency, play a crucial role in moderating these relationships. Thus, a multifaceted approach incorporating technology-driven tax administration, enhanced education initiatives, and strict enforcement policies is necessary to improve tax compliance rates and optimize revenue generation.

Based on these findings, policymakers should prioritize the digitalization of tax filing processes to minimize bureaucratic bottlenecks and enhance taxpayer convenience. Simplifying tax procedures through automated systems and mobile platforms can reduce errors and encourage voluntary compliance. Additionally, comprehensive taxpayer education programs should be integrated into national financial literacy campaigns, focusing on the benefits of compliance and the consequences of evasion. Public-private partnerships can be leveraged to enhance outreach and effectiveness. Furthermore, tax authorities should strengthen enforcement mechanisms by implementing real-time monitoring systems, increasing audit capabilities, and imposing stricter penalties on defaulters. To address disparities in enforcement effectiveness, a region-specific approach should be adopted, considering socioeconomic and governance differences across various tax jurisdictions. By integrating these strategies, Nigeria can foster a culture of tax compliance, enhance revenue mobilization, and support sustainable economic growth.

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