

TAX PAYERS' DEMOGRAPHICS AND TAX COMPLIANCE IN NIGERIA

¹Eteyen Ezekiel Akpan, ²Uwakmfonabasi J. Simeon Ph.D, FCA,
³Akwaowo Ernest Inyang

¹Department of Accounting, Faculty of Administration and Management Sciences, Akwa Ibom State University Obio Akpa Campus

²Department of Accounting, Faculty of Administration and Management Sciences, Akwa Ibom State University Obio Akpa Campus

³Department of Accounting, Faculty of Administration and Management Sciences, Akwa Ibom State University Obio Akpa Campus
eteyenakpan@aksu.edu.ng, simmyti@yahoo.com, akwaowoinyang@uniuyo.edu.ng

Abstract

In Nigeria, tax compliance continues to fall short of what is needed to sustain public services, even under self-assessment arrangements that presume voluntary reporting and timely payment. In view of this, this study examined the effect of tax payers' demographics on the tax compliance in Nigeria. The specific objectives were to analyze the effect of age of tax payers age, tax payers' income level and educational level of tax payers on tax remittances in Nigeria. The research design adopted for this study was ex post facto and secondary data were used. Data were analysed using ordinary least squares regression and the statistical software used was Eviews version 10. The study findings revealed that age of tax payers has nonsignificant effect (Coeff. = 8.0932 {0.9872}) on tax remittances in Nigeria, income level of tax payers has significant effect (Coeff. = 6.2492 {0.0000}) on tax remittances in Nigeria and education level of tax payers has significant effect (Coeff. = 0.0281 {0.0200}) on tax remittances in Nigeria. It was concluded that taxpayers' demographics are significant determinants of tax compliance in Nigeria. It was therefore recommended among others that the Federal Government should enhance tax enforcement mechanisms and introduce incentives to encourage high-income earners to comply with tax regulations, including the implementation of progressive tax rates to optimize revenue collection.

Keywords: Taxpayers, demographic characteristics, taxpayers' age, taxpayers' income level, taxpayers' educational level

1.1 Introduction

Tax compliance in Nigeria remains a binding constraint on the nation's capacity to stabilize internally generated revenue, especially as expenditure needs rise faster than reliable tax receipts. The core difficulty is not simply enforcement, but heterogeneous taxpayer behaviors across groups whose demographic realities shape how they interpret obligations and respond to administration. Akpan (2024) indicated that weak taxpayer compliance behaviour is directly implicated in revenue shortfalls, implying that improving compliance is a practical fiscal priority rather than a theoretical concern. At the same time, demographic patterns are already visible in Nigeria, where educational stratification and other taxpayer characteristics systematically influence compliance behaviour among business operators (Beredugo & Ekpo, 2023). This makes the demographic lens necessary because "average taxpayer" assumptions hide the real drivers of compliance gaps in the nation. When policy is designed without demographic segmentation, enforcement becomes noisy, incentives

become blunt, and compliance outcomes remain uneven. Nigeria's tax system therefore faces a behavioural problem: the same rules produce different compliance responses across age brackets, income profiles, and education groups. That behavioural problem becomes a revenue problem when noncompliance concentrates in segments with high taxable capacity or high frequency of transactions. It also becomes an equity problem when compliant groups perceive unfairness and begin rationalizing avoidance as a defensive response.

Demographics of taxpayers refers to the attributes of individuals that pay tax. There are age, gender, tribe, education, religion, marital status and geographical location. These affect the revenue generation as a result of noncompliance of the tax payers. Taxpayers' demographics has an important role in shaping tax compliance in Nigeria, influencing how individuals process information, perceive legitimacy, and assess compliance costs (Surugiu et al., 2025). These demographics act as "behavioural channels" that shape tax perceptions and create compliance frictions. For instance, the age of

taxpayers is a significant factor, serving as a proxy for behavioural maturity and exposure. Different age cohorts in Nigeria face varying income structures, enforcement visibility, and familiarity with filing culture, which impact their compliance behaviour. The income level of taxpayers is another critical demographic factor, affecting both capacity to pay and opportunities for underreporting. Higher-income earners may have more opportunities to evade taxes where records are weak, while lower-income individuals may struggle with compliance due to limited financial capacity (Surugiu et al., 2025). Educational level also significantly influences tax compliance, as it shapes comprehension of tax rules, record-keeping ability, and confidence in dealing with tax offices. This, in turn, affects filing accuracy and payment consistency. Furthermore, taxpayers' gender is also a relevant factor, with compliance being higher when burdens and procedures are perceived as just and fair (Oladipo et al., 2022).

Tax compliance is seen as the extent to which taxpayers correctly register where required, file returns when due, report taxable income or transactions truthfully, and remit assessed liabilities within statutory time limits. It is not a single act but a chain of behaviours, and the chain breaks when taxpayers lack knowledge, distrust administration, or face high compliance costs. De Neve et al., (2021) opined that simplifying tax communication increases compliance while deterrence messages can add further compliance gains, meaning compliance is sensitive to information design and perceived enforcement rather than only moral appeals. Bott et al., (2019) showed that targeted administrative contact can reduce evasion and improve reporting, demonstrating that compliance responds to how authorities communicate and signal detection probability. These insights matter because compliance failures often occur at the interface between taxpayers and administrative processes, not only at the point of payment.

The link between taxpayers' demographics and tax compliance in Nigeria is grounded in the idea that compliance is a function of both capacity and motivation, and demographics shape both simultaneously. Augustine (2024) opined that demographic factors materially influence personal income tax compliance behaviour at the national level, indicating that compliance cannot be separated from who the taxpayers are and how they are

positioned socially and economically. Ya'u and Saadm (2019) observed that age and education are significant determinants of tax noncompliance behaviour among Nigerian SME operators, implying that demographic stratification predicts who is more likely to comply or default. This relationship is expected to be stronger because the state contains mixed taxpayer segments where informal earnings, variable record keeping, and uneven digital readiness interact with age and education differences.

Nigerian tax system has undergone transformation from time to time. The last one is the current tax reforms. The various reforms have revolutionized the way taxes are administered as well as how taxpayers' response to taxes. The major thrust of any reform is to enhance compliance system is not adequate or whether across different levels. In Nigeria, tax compliance continues to fall short of what is needed to sustain public services, even under self-assessment arrangements that presume voluntary reporting and timely payment. A central problem is that taxpayers are not a uniform group, and demographic differences can shape both willingness and capacity to comply, so a single enforcement approach produces uneven outcomes across the tax base. Age differences matter because younger taxpayers can display weaker tax morale while institutional trust and enforcement legitimacy can mute pure life cycle effects, making compliance inconsistent across cohorts (McCulloch et al., 2021). Prior studies show that fairness, knowledge, and procedural usability are powerful behavioural channels, but results differ across contexts and taxpayer categories, leaving uncertainty about how demographic proxies jointly shape compliance in a state like Nigeria. Evidence indicates that perceived equity and fairness can significantly raise compliance in fragile, micro enterprise dominated settings, meaning legitimacy and consistent treatment are not optional for compliance strategy (Bello et al., 2023). In Nigeria, fairness effects also strengthen when taxpayers trust the authority, implying that fairness perceptions convert into compliance more effectively when the tax institution is seen as credible (Ya'u & Saadm, 2019). Relatedly, tax justice has been shown to relate positively and significantly to multiple compliance outcomes, reinforcing that equity is not a "soft" concern but a compliance determinant (Alawode & Adegbe, 2022). On the knowledge side, studies

report strong positive links between tax knowledge and compliance behaviour among small business owners, supporting the view that ignorance and uncertainty are direct drivers of noncompliance Ihenyen et al., (2025). Yet, the Nigeria self-assessment evidence suggests income can relate negatively to compliance while fairness and education relate positively, implying that capacity, opportunity, and legitimacy interact in ways that vary by taxpayer segment (Umoffong et al., 2020). This study addressed these gaps by examining these demographic proxies together to explain variations in tax remittances and to clarify which levers matter most for improving compliance outcomes in Nigeria.

2.0 Literature review and theoretical framework

Tax payers' demographics

Taxpayers' demographics describe who the taxpayer is and the context they operate in, and those attributes shape both capacity and incentives to comply. Demographics such as occupation, sector, gender, and household responsibilities influence record keeping habits, exposure to third party reporting, and the time cost of filing, which means they can affect compliance even when tax rates stay constant. Patterns among SME entrepreneurs show that background traits can meaningfully predict tax noncompliance behaviour because they correlate with awareness, routine formation, and risk appetite (Ya'u & Saadm, 2019). Administrative systems also interact with taxpayer type, so the same service quality or monitoring style can produce different compliance outcomes across demographic groups (Ayoola et al., 2023). Compliance beliefs also differ across segments because tax morale is tied to perceived corruption pressure, enforcement credibility, and trust in officials (McCulloch et al., 2021). The implication is that demographics operate like behavioural channels, not mere "controls." Any model that ignores demographic variation tends to overstate uniform policy effects. A demographic lens therefore improves prediction and helps design segment-specific compliance interventions. Demographics matter even more once you recognise that different taxpayer groups face different enforcement structures and reporting environments. Business context, scale, and operational structure influence how observable income is and how costly evasion becomes, which makes demographic segmentation analytically necessary.

Tax compliance

Tax compliance is the extent to which taxpayers register, file accurate returns on time, report correctly, and pay the due amount, and it is fundamentally a behavioural outcome shaped by incentives and institutions. Compliance theory explains that deterrence, norms, and moral motivations jointly determine whether taxpayers comply, meaning compliance cannot be reduced to audit probability alone (Alm, 2019). Trust-based strategies can increase corporate compliance because cooperation reduces uncertainty and conflict costs, making honest reporting more rational than constant dispute and avoidance (Siglé et al., 2018). Tax morale research shows compliance beliefs depend on perceived corruption pressure, enforcement credibility, and trust in officials, confirming compliance is anchored in institutional credibility, not only private calculation (McCulloch et al., 2021). The mechanism is multi-layered: compliance rises when procedures are workable, enforcement is credible, and the system is seen as legitimate. Where informality is high, compliance also depends on record keeping capacity and observability of income. Tax compliance in this study was measured using remittances. Tax remittances refer to the proportion of theoretical tax liabilities that are actually reported and paid, and it is commonly analysed through tax gap estimation. Tax gap methods can estimate compliance rates by comparing potential liabilities to actual collections, enabling diagnosis of where revenue losses occur (Dare et al., 2019). Compliance burden is linked to tax gaps among micro and small businesses, implying low compliance rates can reflect administrative difficulty and errors in addition to deliberate evasion (Peprah et al., 2022).

Age of taxpayers and tax compliance

Age matters because it tracks life stage, institutional experience, and risk tolerance, all of which shape compliance decisions. Younger taxpayers may discount future penalties more, have weaker routines for record keeping, and be more sensitive to immediate compliance hassles, while older taxpayers may place higher value on stability and reputational risk avoidance. Age affects tax compliance because it proxies life stage, risk tolerance, and stability of income and records, which jointly determine the ease and attractiveness of

complying. Vincent et al. (2023) found that age is a significant sociodemographic determinant of SME tax (non)compliance, reflecting differences in routine formation and administrative discipline across cohorts. Age differences influence adoption of digital channels and responsiveness to behavioural nudges, which affects compliance in modern systems. Mascagni et al. (2021) found that technological innovation increased reported tax revenue and reporting behaviour, but the overall effect depends on taxpayer responses and adoption patterns that can vary by cohort. Castro et al. (2022) found that detection and norm-based messages affected compliance and produced spillovers across other taxes, implying age-linked differences in attention and risk processing can alter the net effect of communication strategies. Nagel et al. (2019) reported that a mandatory tax training program improved specific domains of compliance behaviour for starting entrepreneurs, suggesting that skill-building can offset cohort-related barriers to procedural execution. The implication is that age moderates how reforms translate into behaviour, not only baseline compliance. Cohort segmentation therefore improves effectiveness and reduces policy waste. Ignoring cohort differences can produce interventions that work in aggregate but fail for key taxpayer segments. Other empirical studies gave various findings. For instance, Augustine (2024) assessed demographic factors and personal income tax compliance across selected South-West states in Nigeria, explicitly including taxpayer age among the demographic predictors of compliance. The age-related result reported a positive association between age and compliance behaviour, suggesting that older taxpayers tend to report higher compliance propensity than younger taxpayers, aligning with behavioural theories that link age with civic norms and aversion to penalties. Vincent et al. (2023) directly tested the effect of sociodemographic characteristics including age on tax noncompliance behaviour among SME entrepreneurs across Nigeria's six geopolitical zones. The study found that age was a significant determinant of tax noncompliance behaviour: older entrepreneurs were generally less likely to engage in noncompliance than younger entrepreneurs. Areo and Gershon (2020), provided a Nigeria-specific empirical test of personal income tax compliance using nationally representative household survey data, and found that age range has positive and

statistically significant with tax compliance. Thus, this study hypothesized that;

H01: Tax payers age has no significant effect of tax compliance in Nigeria.

Income level of tax payers and tax compliance

Income level matters because it determines liability size, ability to pay, and the payoff from evasion, especially under imperfect enforcement. Compliance theory predicts that the expected gain from under reporting rises with taxable income, so income can increase evasion incentives unless detection is credible (Alm, 2019). Income level influences tax compliance because it changes both the ability to pay and the expected gain from evasion when enforcement is imperfect. Paramaduhita and Mustikasari (2018), found that income and taxpayer perceptions are related to compliance behaviour, indicating that financial capacity and perceived burden jointly shape whether taxpayers follow through. Alm (2019) argued that as taxable income rises, the potential benefit of under reporting increases, which can reduce compliance unless detection risk and penalties are credible. Marion and Muehlegger (2018), showed that evasion and enforcement create fiscal externalities, illustrating how income-rich sectors can generate large compliance losses when enforcement structures permit avoidance or under reporting. The mechanism is dual: income affects affordability and incentive to evade at the same time. Effective compliance policy must therefore combine burden management with credible detection and base visibility. Research has shown that higher-income taxpayers are more likely to comply with tax laws when they perceive governance returns and maintain influence over revenue systems (Elemo-Kaka, 2025; Occhiali, 2025). However, other studies have found that higher-income taxpayers are more likely to exploit loopholes and hide income (Umoffong et al., 2020; Adegboye et al., 2018). Thus, this study hypothesized that;

H02: Income level of tax payers has no significant effect on tax compliance in Nigeria.

Education level of tax payers and tax compliance

Education influences compliance because it affects comprehension of obligations, administrative skill, and the ability to use filing and payment channels effectively. When taxpayers cannot understand rules or procedures, noncompliance can

occur even without intent, and education reduces that risk by improving capability (Alm, 2019). Education affects tax compliance because it determines comprehension of obligations, the ability to keep records, and the capacity to use filing and payment systems correctly. Ogoun and Ekpulu (2020), found a positive relationship between education-related measures and tax revenue used as a compliance proxy, implying that education can support compliance by strengthening taxpayer capability and understanding. Alm (2019) argued that complexity and misunderstanding increase both inadvertent noncompliance and rationalised evasion, so education can reduce the cognitive costs of complying. Nagel et al. (2019) reported that a structured tax training program improved specific domains of compliance behaviour, indicating that education matters most when it is practical and procedural rather than abstract awareness. Appah and Aganaba (2024), investigated the education-compliance link through tax knowledge and public trust, using evidence from informal sector operators in Bayelsa State. Their results indicated positive and significant relationships between general, procedural, and legal tax knowledge and voluntary tax compliance. Ellawule et al. (2024) examined how tax knowledge, a direct output of taxpayer education, affects tax compliance among MSMEs in Nigeria and whether it changes the effect of tax rates on compliance. Their findings showed that tax knowledge significantly affects tax compliance and also strengthens the relationship between tax rates and compliance. Adekoya (2019) investigated the relationship between taxpayer education and tax compliance among individual taxpayers in Lagos State, using a cross-sectional survey design. The findings revealed that taxpayer education had a significant positive effect on tax compliance. Thus, this study hypothesized that;

Ho3: Education level of tax payers has no significant effect on tax compliance in Nigeria.

2.2 Theoretical framework

The major theory supporting this study was planned behavior theory.

Ajzen (1991) developed the theory of planned behavior to explain why people perform a behavior when the action is not fully under voluntary control, adding perceived behavioral control to the earlier reasoned-action logic. The theory argues that tax compliance is most proximally driven by intention,

while actual compliance is jointly shaped by intention and perceived control over the act of complying, such as having the time, skills, documents, and access to procedures needed to file and pay correctly (Ajzen, 1991). In TPB, intention is formed from three belief-based drivers: attitude toward paying tax, subjective norms from important others and society, and perceived behavioral control reflecting ability and constraints. Importantly for demographics, TPB treats socio-structural variables like age, education, and income as background factors that affect compliance indirectly by shaping these beliefs and perceptions rather than acting as direct psychological causes (Hagger & Hamilton, 2021). In the tax domain, TPB-based evidence shows that attitudes and perceived complexity or fairness can materially shape tax compliance intention, supporting TPB's usefulness for explaining why some groups comply more than others even under the same law (Taing & Chang, 2021).

Conner and Norman (2022), criticized TPB on the ground that strong intentions frequently fail to translate into actual behavior, making the intention behavior gap a persistent problem when real-world barriers intervene. Another critique is that many TPB studies rely heavily on cross-sectional correlations, so they claim causal pathways from attitude, norms, and control to intention and behavior without designs that can firmly establish direction and mechanism (Hagger & Hamilton, 2025). A further line of criticism targets measurement and model specification, arguing that TPB's predictive success can depend on auxiliary assumptions, and that researchers sometimes treat weak operationalizations as theory failure rather than a measurement problem, complicating conclusions about the theory's limits (St-Quinton et al., 2021). These critiques do not make TPB useless; they narrow what TPB can claim reliably. TPB predicts intentions well, but behavior prediction weakens when habits, enforcement shocks, or structural constraints dominate. For tax compliance, this means TPB needs to be paired with careful measures of real constraints and administrative frictions. Without that, demographic differences may be misread as "attitude differences" when the true driver is capability or access.

This study is anchored on TPB because the effect of taxpayers' demographics on compliance in Nigeria is logically mediated through beliefs, norms, and perceived control, which TPB explicitly models

rather than leaving as unexplained “background effects.” Hagger and Hamilton (2021), support this logic by showing that socio-structural variables are expected to influence behavior indirectly through TPB constructs, making TPB appropriate when the independent variables include age, education, and income. In Nigeria, demographic patterns can plausibly shape attitude toward tax (whether paying feels worthwhile), subjective norms (peer and community expectations), and perceived behavioral control (ability to complete registration, filing, and payment procedures), which then shape compliance intention and behavior. Nigerian evidence also shows that administrative quality and trust in the tax authority influence compliance, aligning with TPB because trust and administrative reliability can strengthen perceived control and pro-compliance norms (Ayoola et al., 2023). Empirical demographic work further supports the need for a theory that can explain why age and education differences map into compliance outcomes, which TPB can do through the intention and control pathway (Vincent et al., 2023). TPB therefore fits your model because it explains both “why” demographics matter and “how” they

translate into compliance, which strengthens hypothesis logic and interpretation.

3.0 Methodology

This study adopted an ex-post facto research design. This research design was suitable because it utilized pre-existing data, reducing the risk of manipulation or bias. The population of the study comprised the entire stream of aggregate taxpayer-demographic and tax-remittance observations generated within Nigeria’s tax jurisdiction. Since taxpayers enter and exit the tax system continuously and taxable activities and administrative records are generated without a fixed terminal number, the population was regarded as infinite. The study employed secondary data sourced from Nigeria tax authority records, and Federal Inland Revenue Service data bases and Statistical Bulletin for a period of thirty (30) years (1995 – 2024). The data collected were analyzed using descriptive statistics such as mean, standard deviation, and percentages to summarize and describe the key variables under study. Descriptive statistical tools provided an initial understanding of the data, while unit root tests assessed the stability of the variables over time.

Model specification

The model used in this study was adapted from the study of Umoffong et al. (2020) and modified to fit this study as presented below:

$$\text{Tax compliance} = f(\text{Tax payers demographics})$$

$$\text{TARE} = f(\text{ATPA, ILTP, ELTP}) \dots\dots\dots (1)$$

Econometrically, the multiple linear regression model below was employed. It is stated as:

$$\text{TARE}_t = \beta_0 + \beta_1 \text{ATPA}_t + \beta_2 \text{ILTP}_t + \beta_3 \text{ELTP}_t + \mu \dots (2)$$

Where;

- TARE_t = Tax remittances in period t
- ATPA_t = Age of TaxPayers in period t
- ILTP_t = Income Level of Tax Payers in period t
- ELTP_t = Education Level of Tax Payers in period t

4.0 Analysis and Discussion

The data employed for this study were obtained exclusively from CBN Bulletin and World Bank factbook. The data set comprised data for age of tax payers, income level of tax payers, and educational level of tax payers.

Table 4.1 Descriptive statistics results

	TARE	ATPA	ILTP	ELTP
Mean	26.98602	32.51778	1181480.	70.97088
Median	27.18696	33.51948	947825.8	73.15713
Maximum	28.92025	42.72678	3393305.	93.25228
Minimum	24.92316	24.34557	124041.8	53.13483
Std. Dev.	1.103107	4.718093	965102.1	10.29736
Skewness	-0.226123	0.125503	0.877215	0.125503
Kurtosis	2.175414	2.558510	2.583677	2.558510
Jarque-Bera	0.921322	0.268664	3.386825	0.268664
Probability	0.630867	0.874300	0.183891	0.874300

Sum	674.6504	812.9444	29536998	1774.272
Sum Sq. Dev.	29.20430	534.2496	2.242413	2544.854
Observations	30	30	30	30

Source: Researcher's computation (2026) using E-views 10.0

The results in Table 4.1 above indicates that tax remittances, age of tax payers, income level of tax payers and educational level of tax payers over the period under study (1995-2024) showed mean scores of approximately 26.98, 32.51%, 1181480, 70.97%, with median scores of approximately 27.18, 33.51%, 947825.8, 73.15%, respectively over the years under study (2000-2024). In addition, the skewness values obtained for tax remittances, age of tax payers,

income level of tax payers and educational level of tax payers over the period under study (2000-2024) were -0.2261, 0.1255, 0.8772, 0.1255. This quantifies the asymmetry of the distributions. In addition, the Kurtosis values obtained for the variables adopted for the study were all greater than zero (0), indicating leptokurtic distributions with heavier tails and a higher peak. This suggests that the data points are more concentrated around the mean, with fewer extreme values.

Table 4.2 Unit Root Test Results

Method	Statistic	Prob.**
ADF - Fisher Chi-square	0.71184	0.7636
ADF - Choi Z-stat	1.16132	0.8772

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results UNTITLED

Series	Prob.	Lag	Max Lag	Obs
TARE	0.8309	0	4	24
ATPA	0.4242	4	4	20
ILTP	1.0000	0	4	24
ELTP	0.4242	4	4	20

Source: Researcher's computation (2026) using E-views 10.0

The null hypothesis for the ADF test is that the series contains a unit root, meaning it is non-stationary. With ADF - Fisher Chi-square statistic of 0.71184 with a p-value of 0.7636. The high p-value indicates that we

fail to reject the null hypothesis of a unit root. Also, the ADF - Choi Z-stat. of 1.16132 with a p-value of 0.8772 suggests that we cannot reject the null hypothesis of a unit root

Table 4.3 Engle-Granger cointegration test results

	Value	Prob.*
Engle-Granger tau-statistic	-2.887597	0.5018
Engle-Granger z-statistic	-13.51878	0.5089

*MacKinnon (1996) p-values.

Intermediate Results:

Rho - 1	-0.375522
Rho S.E.	0.130046
Residual variance	23313980
Long-run residual variance	23313980
Number of lags	0
Number of observations	25

**Number of stochastic trends in asymptotic distribution.

Source: Researcher's computation (2026) using E-views 10.0

Based on the Engle-Granger test statistics (Tau-statistic p-value = 0.5018 and Z-statistic p-value = 0.5089), the null hypothesis of no cointegration was not

rejected, indicating that the variables are likely not cointegrated and do not share a long-run equilibrium relationship.

Table 4.4 Correlation matrix

	TARE	ATPA	ILTP	ELTP
TARE	1.000000			
ATPA	-0.015041	1.000000		
ILTP	0.196154	0.001928	1.000000	
ELTP	0.058473	0.145324	0.066936	1.000000

Source: Researcher's computation (2026) using E-views 10.0

Table 4.5 shows the association between two pairs of the variables. Of particular interest is the relationship existing between each pair of the independent variables. As highlighted, no pair of the

independent variables have correlation coefficient that is lesser than 0.80 suggesting the absence of multicollinearity issues in the series.

Table 4.5 Modified Least Squares Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ATPA	8.093205	0.004965	0.016287	0.9872
ILTP	6.249207	8.12E-08	7.677322	0.0000
ELTP	0.028117	0.010885	2.583083	0.0200
C	23.77714	0.858798	27.68652	0.0000
R-squared	0.958038	Mean dependent var		27.07197
Adjusted R-squared	0.939680	S.D. dependent var		1.037799
S.E. of regression	0.254885	Sum squared resid		1.039461
Long-run variance	0.033446			

Source: Researcher's computation (2026) using E-views 10

The regression line is as written below:

$$\text{TARE} = 8.08590622622 \cdot \text{ATPA} + 6.23676825344 \cdot \text{ILTP} + 0.02811719271 \cdot \text{ELTP} + 23.77714045 + \mu$$

The high R-squared value of 0.9396(93.96%) suggests that the model explains a significant portion

of the variation in tax remittances in Nigeria, and the adjusted R-squared value of 0.9580(95.8%) confirms the model's robustness.

4.2 Discussion of findings

Age of taxpayers and tax remittances

The findings from modified least squares regression in table 4.6 revealed that the age of taxpayers has no significant effect on tax remittances in Nigeria, with a coefficient of 8.0932 and a p-value of 0.9872. The result suggests that, although the estimated coefficient is positive, the relationship lacks empirical support and is not distinguishable from zero at any conventional level of significance. The extremely high p-value indicates that variations in taxpayers' age do not systematically explain differences in tax remittance behaviour within the sampled population. This study contrast the findings of, Augustine (2024) found that age is positively related to compliance,

suggesting that older taxpayers tend to exhibit higher compliance behaviour due to stronger civic norms and risk aversion. On the other hand, this finding support the work of Ya'u and Saadm (2019) who found that age significantly influences non compliance among SME operators, with older individuals less likely to evade taxes. McCulloch et al. (2021) also found that age is not a strong or consistent predictor of tax morale in Nigeria. While younger individuals may exhibit slightly lower compliance tendencies, the study concluded that factors such as trust in institutions, enforcement perceptions, and social norms exert a far greater influence. In a similar vein, Umoffong et al. (2020) emphasized that compliance is more strongly influenced by perceived fairness, education, and

income rather than demographic factors like age. Their findings suggest that age effects are indirect and mediated through other variables, which may explain why age appears statistically insignificant in the current model. Evidence from Areo and Gershon (2020) further strengthens this position. While they found that age was significant under certain model specifications, its effect diminished when economic and enforcement variables were introduced. Finally, Augustine et al. (2020) reported a negative but insignificant relationship between age and voluntary tax compliance, concluding that institutional trust and service quality are more critical determinants.

Income level of taxpayers and tax remittances

The findings from modified least squares regression in table 4.6 revealed that the income level exerts a statistically significant effect on tax remittances in Nigeria ($\beta = 6.2492$; $p = 0.0000$). This indicates a strong and reliable relationship between taxpayers' earning capacity and their compliance behaviour. The positive coefficient suggests that higher income levels are associated with increased tax remittances, implying that as individuals' economic capacity improves, their likelihood and ability to comply with tax obligations also rise. The p-value of 0.0000 confirms that this relationship is highly significant and not due to random variation, thereby establishing income as a critical determinant of tax compliance. This finding is strongly supported by the theory of Planned Behaviour (TPB), developed by Icek Ajzen. The findings of this study aligns with the work of Adegboye et al. (2018) who reported that financially stronger and more stable businesses, those with higher and more predictable income, demonstrate higher compliance levels. However, the relationship between income and compliance is not without complexity.

Educational level of taxpayers and tax remittances

The findings from modified least squares regression in table 4.5 revealed that educational level has a positive and statistically significant effect on tax remittances in Nigeria ($\beta = 0.0281$; $p = 0.0200$). This indicates that education is an important, though moderately sized, determinant of tax compliance behaviour. The positive coefficient implies that as taxpayers attain higher levels of education, their likelihood of remitting taxes increases. The p-value

(0.0200) confirms that this relationship is statistically significant at the 5% level, suggesting that the observed effect is unlikely to have occurred by chance. Substantively, the magnitude of the coefficient (0.0281) suggests that the effect of education is incremental rather than large. This is typical of behavioural variables: education does not directly compel compliance but shapes the cognitive, informational, and attitudinal conditions under which compliance decisions are made. In other words, education acts as an enabling factor that improves taxpayers' understanding of tax obligations, awareness of penalties, and appreciation of the role of taxation in public finance.

A substantial portion of the literature provides direct support for the positive education–compliance nexus observed in this study. For instance, Ndukwe et al. (2025) found that specific dimensions of tax education, particularly legal and procedural knowledge, have a positive and significant effect on tax return filing compliance among self-employed individuals in Nigeria. Similarly, Appah & Aganaba (2024) reported that tax knowledge significantly enhances voluntary tax compliance among informal sector operators, with the additional insight that public trust moderates this relationship.

5.0 Conclusion and Recommendations

This study examined the effect of taxpayers' demographics on tax compliance in Nigeria over a 39-year period. The findings indicate that income level, education level, location, and marital status significantly influence tax compliance, while age, gender, and occupation have no significant effect. These results underscore the complexity of tax compliance behavior, highlighting the need for targeted strategies that account for demographic variations. The study's findings suggest that policymakers should focus on enhancing tax education, improving institutional credibility and addressing location-specific challenges to boost compliance. Additionally, leveraging the positive influence of marital status and income level on tax remittances could inform tailored interventions. It was recommended that tax authorities should avoid age-based segmentation when designing compliance strategies. Instead, efforts should be redirected toward more impactful determinants of compliance such as income level and education. Tax authorities

should strengthen income-based compliance monitoring systems, particularly targeting high-income earners and the informal sector where underreporting is prevalent. Government agencies should intensify tax education and enlightenment campaigns, particularly targeting less-educated segments of the population.

REFERENCES

- Adegboye, A. C., Alao-Owunna, I., & Egharevba, M. I. (2018). Business characteristics, tax administration and tax compliance by SMEs in Nigeria. *Oradea Journal of Business and Economics*, 3(Special Issue), 7–17. <https://doi.org/10.47535/1991ojbe039>
- Adekoya (2019). Investigated taxpayer education and tax compliance in Lagos state.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akpan, E. E. (2024). Individual taxpayers' compliance behaviour and tax revenue generation in Nigeria. *International Journal of Research and Innovation in Social Science*, 8(4), 2677–2699. <https://doi.org/10.47772/IJRISS.2024.804256>
- Alawode, O., & Adegbie, F. F. (2022). Taxpayers behaviour and tax compliance outcomes: Function of tax justice in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 10(5), 91–115. <https://doi.org/10.37745/ejaaf.2013/vol10n5pp91115>
- Alm, J. (2019). What motivates tax compliance? *Journal of Economic Surveys*, 33(2), 353–388. <https://doi.org/10.1111/joes.12272>
- Appah & aganaba (2024). Tax compliance in Nigeria, focusing on the role of public trust and tax socialization.
- Areo, O. S., & Gershon, O. (2020). Personal income tax compliance in Nigeria: A generalised ordered logistic regression. *Research in World Economy*, 11(3), 261–283. <https://doi.org/10.5430/rwe.v11n3p261>
- Augustine, A. A. (2024). Demographic factors and personal income tax compliance in South-West States, Nigeria: Empirical analysis. *Asian Business Research Journal*, 9, 97–104. <https://doi.org/10.55220/25766759.207>
- Augustine, A. A., Folajimi, A. F., & Ayodele, A. L. (2020). Quality of tax services, moderated by trust in state internal revenue service and voluntary tax compliance behaviour among individual taxpayers in South-West, Nigeria. *Journal of Accounting, Business and Finance Research*, 8(2), 47–57. <https://doi.org/10.20448/2002.82.47.57>
- Ayoola, T. J., Olaniyi, O. O., Kolawole, P. E., Aregbesola, O. D., & Wright, O. (2023). Tax administration, trust in tax authorities, and personal income tax compliance: Evidence from Nigeria. *Public and Municipal Finance*, 12(1), 12–21. [https://doi.org/10.21511/pmf.12\(1\).2023.02](https://doi.org/10.21511/pmf.12(1).2023.02)
- Bello, U., Bayu, U. F., Adamu, N. S., Ogboji, O. A., Abubakar, M. A., Lass, R., Usman, A., & John, J. (2024). Tax knowledge and tax compliance of micro and small enterprises in Gombe State, Nigeria: Moderating effect of record keeping practice. *Kashere Journal of Management Sciences*, 7(1). <https://journals.fukashere.edu.ng/index.php/kjms/article/view/326>
- Beredugo, S. B., & Ekpo, B. O. (2023). Tax payers' attitudes and demographic analysis of SMEs operators in River and Akwa-Ibom State, Nigeria. *Journal of Accounting and Taxation*, 3(1), 65–76. <https://doi.org/10.47747/jat.v3i1.1079>
- Bott, K. M., Cappelen, A. W., Sørensen, E. Ø., & Tungodden, B. (2019). You've got mail: A randomized field experiment on tax evasion. *Management Science*. <https://doi.org/10.1287/mnsc.2019.3390>

- Castro, J. F., Velásquez, D., Beltrán, A., & Yamada, G. (2022). The direct and indirect effects of messages on tax compliance: Experimental evidence from Peru. *Journal of Economic Behavior and Organization*, 203, 483–518. <https://doi.org/10.1016/j.jebo.2022.09.022>
- Conner, M., & Norman, P. (2022). Understanding the intention–behavior gap: The role of intention strength. *Frontiers in Psychology*, 13, 923464. <https://doi.org/10.3389/fpsyg.2022.923464>
- Dare, C., du Plessis, S., & Jansen, A. (2019). Tax revenue mobilisation: Estimates of South Africa’s personal income tax gap. *South African Journal of Economic and Management Sciences*, 22(1), a2817. <https://doi.org/10.4102/sajems.v22i1.2817>
- De Neve, J.-E., Imbert, C., Spinnewijn, J., Tsankova, T., & Luts, M. (2021). How to improve tax compliance? Evidence from population-wide experiments in Belgium. *Journal of Political Economy*, 129(5), 1425–1463. <https://doi.org/10.1086/713096>
- Elemo-Kaka, O. O. (2025). Constructing a tax culture: Why Lagos State’s elites chose taxes over transfers. *Regional and Federal Studies*. <https://doi.org/10.1080/13597566.2025.2486621>
- Ellawule, A., Bashir, Y. M., Dalhat, B. S., & Suleiman, N. (2024). The moderating effect of tax knowledge on the relationship between tax rates and tax compliance of MSMEs in Nigeria. *FUDMA Journal of Accounting and Finance Research*, 2(1), 118–133. <https://doi.org/10.33003/fujafr-2024.v2i1.81.118-133>
- Hagger, M. S., & Hamilton, K. (2021). Effects of socio-structural variables in the theory of planned behavior: A mediation model in multiple samples and behaviors. *Psychology and Health*, 36(3), 307–333. <https://doi.org/10.1080/08870446.2020.1784420>
- Ihenyen, J. C., Chinonso, R. O., & Marcus, R. B. (2025). Tax knowledge and tax compliance behavior of small business owners in Bayelsa State. *International Journal of Social Sciences and Management Research*, 11(10), 285–294. <https://doi.org/10.56201/ijssmr.vol.11no10.2025.pg285.294>
- Marion, J., & Muehlegger, E. (2018). Tax compliance and fiscal externalities: Evidence from U.S. diesel taxation. *Journal of Public Economics*, 160, 1–13. <https://doi.org/10.1016/j.jpubeco.2018.02.007>
- Mascagni, G., Mengistu, A. T., & Woldeyes, F. B. (2021). Can ICTs increase tax compliance? Evidence on taxpayer responses to technological innovation in Ethiopia. *Journal of Economic Behavior and Organization*, 189, 172–193. <https://doi.org/10.1016/j.jebo.2021.06.007>
- McCulloch, N., Moerenhout, T., & Yang, J. (2021). Building a social contract? Understanding tax morale in Nigeria. *Journal of Development Studies*, 57(2), 226–243. <https://doi.org/10.1080/00220388.2020.1797688>
- Nagel, H., Rosendahl Huber, L., Van Praag, M., & Goslinga, S. (2019). The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment. *Journal of Business Venturing*, 34(2), 261–283. <https://doi.org/10.1016/j.jbusvent.2018.10.006>
- Occhiali, G. (2025). Taxing high-net-worth individuals in Nigeria: Challenges and opportunities for policy-makers from a preliminary investigation. *Development Policy Review*, 43(2), e70001. <https://doi.org/10.1111/dpr.70001>
- Oladipo, O., Nwanji, T., Eluyela, D., Godo, B., & Adegboyegun, A. (2022). Impact of tax fairness and tax knowledge on tax compliance behavior of listed manufacturing companies in Nigeria. *Problems and Perspectives in Management*, 20(1), 41–48. [https://doi.org/10.21511/ppm.20\(1\).2022.04](https://doi.org/10.21511/ppm.20(1).2022.04)

- Paramaduhita, A. V., & Mustikasari, E. (2018). Non-employee individual taxpayer compliance: Relationship with income and perception of taxpayer. *Asian Journal of Accounting Research*, 3(1), 112–122. <https://doi.org/10.1108/AJAR-06-2018-0007>
- Peprah, J. A., Andoh, F. K., Avorkpo, E. A., Dafor, K. N., Afful, B., Jr., & Obeng, C. K. (2022). Compliance burden and tax gap among micro and small businesses: Evidence from Ghana. *SAGE Open*, 12(4), 21582440221126985. <https://doi.org/10.1177/21582440221126985>
- Sigl  , M., Goslinga, S., Spekl  , R. F., van der Hel, L., & Veldhuizen, R. (2018). Corporate tax compliance: Is a change towards trust-based tax strategies justified? *Journal of International Accounting, Auditing and Taxation*, 32, 3–16. <https://doi.org/10.1016/j.intaccaudtax.2018.06.003>
- Surugiu, Marice-Razvan, V. Vasile, Surugiu, C, R. M.Mirela-Cleentina Parait & E. Banduchi. Int. J.Financial Study. 2025, 13(1),14.<https://doi.org/10.3390/ijfs13010014>
- Taing, H. B., & Chang, Y. (2021). Determinants of tax compliance intention: Focus on the theory of planned behavior. *International Journal of Public Administration*, 44(1), 62–73. <https://doi.org/10.1080/01900692.2020.1728313>
- Umoffong, N. J., Etim, E. O., & Bassey, D. O. (2020). Demographic and socio-economic factors as determinants of tax compliance in self-assessment system (SAS) in Nigeria, Nigeria. *Archives of Business Research*, 8(5), 112–136. <https://doi.org/10.14738/abr.85.8189>
- Vincent, R. C. (2023). Vertical taxing rights and tax compliance norms. *Journal of Economic Behavior and Organization*, 205, 443–467.
- Ya’u, A., & Saad, N. (2019). Fairness perceptions and voluntary tax compliance in Nigeria: The moderating role of trust. *Global Business Management Review*, 11(2), 54–76.