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Cryptocurrency Transactions, Tax Compliance and Regulatory Frameworks in Nigeria

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Abstract

Cryptocurrency growth in Nigeria offers opportunities but is constrained by weak reporting, decentralization, and limited capacity, affecting compliance and revenue. This study examined the effects of cryptocurrency transactions and regulatory frameworks on tax compliance in Nigeria. Using a cross-sectional survey design, data were collected from 400 respondents comprising cryptocurrency users, traders, MSME owners, VASP staff, tax consultants, and tax officials to assess transaction behaviours, compliance patterns, and perceptions of tax education, enforcement, technology infrastructure, and regulatory frameworks. Descriptive analyses revealed very high engagement in cryptocurrency activities alongside moderate levels of tax compliance. Results from the first regression model showed that cryptocurrency transaction activity had a significant positive effect on tax compliance ($B = 0.210$, $t = 2.917$, $p = 0.004$), explaining 2.3% of the variance. This indicates that more active cryptocurrency users tend to exhibit greater adherence to tax obligations. The second regression model demonstrated that regulatory frameworks, tax education, enforcement, and technology infrastructure each exerted significant positive influences on tax compliance, collectively explaining 15.3% of the variance ($R^2 = 0.153$). These findings underscore the critical role of institutional measures, particularly enforcement and digital infrastructure in strengthening voluntary compliance within the cryptocurrency ecosystem. The study concludes that both behavioural engagement in cryptocurrency and robust institutional support are essential for improving tax compliance in Nigeria's digital asset sector. It recommends enhanced tax education programs, clearer regulatory guidelines, stronger enforcement mechanisms, and investment in digital monitoring infrastructure to integrate cryptocurrency activities into effective tax administration. The findings provide evidence-based insights for policymakers seeking to strengthen tax governance in a rapidly evolving financial landscape.

Keywords: Cryptocurrency Transactions, Tax Compliance, Regulatory Frameworks, Tax Education, Enforcement, Digital Infrastructure, Nigeria.

Introduction

The growth of cryptocurrency transactions has transformed global finance by enabling decentralized investment, remittances, and value exchange, but it also presents governance and tax challenges, especially in developing

countries like Nigeria. With an estimated \$92.1 billion in transactions between July 2024 and June 2025, Nigeria's crypto activity highlights significant fiscal potential for expanding the tax base (PricewaterhouseCoopers [PwC], 2026; Olanrewaju, 2026). However, decentralized systems, lack of reporting mechanisms, and limited guidance on tax computation and reporting contribute to underreporting and non-compliance (Nwangwu, 2026).

Regulatory frameworks refer to the laws, policies, guidelines, and institutional rules established by government authorities to regulate, monitor, and control economic and financial activities within a country (Organisation for Economic Co-operation and Development [OECD], 2023). In the context of cryptocurrency taxation, regulatory frameworks provide the legal basis for transaction reporting, tax assessment, compliance monitoring, and enforcement mechanisms aimed at ensuring transparency and accountability in digital financial activities. Effective regulatory frameworks are therefore essential for minimizing tax evasion, strengthening investor confidence, and promoting financial stability in the digital economy.

Closely related to this is institutional capacity, which refers to the ability of government institutions, tax authorities, and regulatory agencies to effectively design, implement, monitor, and enforce policies and regulations (World Bank, 2022). Institutional capacity includes the availability of skilled personnel, technological infrastructure, administrative efficiency, and inter-agency coordination necessary for effective tax administration and regulatory compliance. In Nigeria, weak institutional capacity, inadequate digital infrastructure, and limited technical expertise have continued to constrain the effective monitoring and taxation of cryptocurrency transactions.

To address these issues, the Nigeria Tax Administration Act (NTAA) 2025 requires crypto platforms to collect user data, enforce KYC compliance, retain records, and report transactions, with strict penalties for non-compliance (Business Day Nigeria, 2026; The Will News Media, 2026). These reforms align with international standards like the OECD's Crypto-Asset Reporting Framework (CARF), which promotes cross-border tax transparency (Coin Central, 2026).

Despite these advances, challenges remain, including regulatory ambiguity, high compliance costs, and weak enforcement capacity, which may push activity toward informal P2P markets (Nairametrics, 2025). Overall, Nigeria's rapid crypto growth presents both opportunities and risks, making it essential to examine how regulatory frameworks, compliance behaviour, and institutional capacity can be strengthened to improve tax compliance and safeguard revenue (PwC, 2026; Business Day Nigeria, 2026; Coin Central, 2026).

The main objective is to examine the relationship between cryptocurrency transactions, tax compliance, and regulatory frameworks in Nigeria to understand how digital asset activity and institutional capacity influence tax behaviour and revenue mobilisation. Specifically, the study aims:

- i. To examine the effect of cryptocurrency transactions on tax compliance in Nigeria.
- ii. To evaluate the impact of regulatory frameworks on the enforcement and effectiveness of cryptocurrency taxation in Nigeria.

In line with the objectives of this study, the following hypotheses are formulated and stated in their null forms to guide the investigation and statistical analysis:

- i. H_{01} : Cryptocurrency transactions have no significant effect on tax compliance in Nigeria.
- ii. H_{02} : Regulatory frameworks have no significant impact on the enforcement and effectiveness of cryptocurrency taxation in Nigeria.

The hypotheses assess the impact of cryptocurrency activity and regulatory frameworks on tax compliance and enforcement in Nigeria, with H_{01} focusing on digital transactions and H_{02} on institutional effectiveness, to inform policy, enforcement, and revenue mobilisation.

Literature Review

Cryptocurrency transactions refer to the exchange, transfer, or trading of digital assets on blockchain networks without reliance on central banking systems, including activities such as buying, selling, converting to fiat currency, and using crypto for remittances, investments, or payments. These transactions are characterized by decentralization, pseudonymity, borderless transferability, and cryptographic security, distinguishing them from traditional financial instruments.

In Nigeria, cryptocurrency adoption has increased significantly due to macroeconomic instability, exchange rate volatility, and demand for efficient remittances, with an estimated \$92.1 billion in transactions between July 2024 and June 2025 (PricewaterhouseCoopers [PwC], 2026; Olanrewaju, 2026). However, the decentralized and P2P nature of these transactions limits traceability, creating challenges for tax authorities in identifying taxable events.

Tax compliance involves adherence to tax obligations such as income declaration, tax computation, filing, and payment, driven by both voluntary and enforced mechanisms (Alm, 1991; OECD, 2004; Wenzel, 2002). In the

cryptocurrency context, compliance is hindered by valuation difficulties, price volatility, lack of documentation, and uncertainty in reporting gains, increasing the risk of underreporting and non-compliance (Nwangwu, 2026).

Regulatory frameworks govern cryptocurrency activities and tax compliance. In Nigeria, the NTAA 2025 introduces reporting obligations, KYC requirements, and record-keeping by VASPs (BusinessDay Nigeria, 2026; TheWill News Media, 2026), aligning with global standards like the OECD's CARF (CoinCentral, 2026). However, concerns about regulatory clarity, costs, and enforcement capacity persist, with the risk of pushing activity into informal P2P markets (Nairametrics, 2025). Effective regulatory frameworks function through clarification, monitoring, and enforcement, with their success dependent on institutional capacity, technology, and inter-agency coordination.

Theoretical Framework

This study is anchored on Economic Deterrence Theory, initially propounded by Becker (1968) to explain crime and deviant behaviour from an economic perspective and later extended to tax compliance by Allingham and Sandmo (1972). The theory posits that individuals are rational actors who compare the benefits of non-compliance with the expected costs, determined by the likelihood of detection and the severity of penalties. Taxpayers will comply when the expected cost of evasion outweighs the benefits of underreporting income.

The relevance of this theory is evident in Nigeria's cryptocurrency landscape, where transactions are decentralized and rely heavily on self-reporting, increasing the risk of non-compliance. The Nigeria Tax Administration Act (NTAA) 2025 seeks to strengthen compliance through stricter reporting obligations, KYC requirements, and penalties, thereby raising the cost of evasion. The theory also explains behaviour in informal P2P markets, where low monitoring encourages non-compliance. Overall, the theory provides a framework for understanding how enforcement, audit probability, and penalties influence taxpayer behaviour and revenue mobilisation.

Empirical Review

Several of the reviewed studies share similar findings with the present study by emphasizing the importance of regulatory frameworks, enforcement mechanisms, and institutional capacity in improving cryptocurrency tax compliance. For instance, Nwangwu (2026), Thiemann (2024), and Ahmed (2021) all identified the absence of clear tax guidelines and standardized reporting systems as major barriers to effective cryptocurrency taxation. These studies collectively revealed that ambiguity in regulatory frameworks creates uncertainty for taxpayers and weakens

compliance behaviour. Their findings are closely related to the present study because they highlight the need for stronger regulatory structures to improve compliance and revenue generation in Nigeria's cryptocurrency sector.

Similarly, Okeke and Eze (2023) and Adebayo and Usman (2022) focused on the role of technology and institutional systems in enhancing tax administration. Okeke and Eze (2023) found that the absence of blockchain analytics tools reduced the effectiveness of tax audits, while Adebayo and Usman (2022) showed that minimally regulated digital platforms increased underreporting and tax evasion. Both studies emphasized the importance of technological integration and institutional capacity in strengthening tax enforcement. These findings align with the present study's focus on institutional capacity and enforcement mechanisms as critical factors influencing cryptocurrency tax compliance in Nigeria.

Awodele, Ajayi, and Bello (2026) also relate closely to the present study by emphasizing compliance behaviour. Their findings showed that digital tax education significantly improved taxpayers' understanding of reporting obligations and increased voluntary compliance intentions. This supports the current study's argument that improving compliance behaviour requires not only stronger regulations but also taxpayer awareness and education.

Although most studies support stronger regulation and enforcement, some differences exist in their emphasis and conclusions. For example, Ibeh (2025) argued that excessive compliance costs, licensing ambiguity, and regulatory gridlock could discourage compliance and push cryptocurrency users into informal peer-to-peer (P2P) markets. This differs slightly from studies such as Okeke and Eze (2023) and Awodele et al. (2026), which emphasized stricter enforcement and improved monitoring systems as solutions to non-compliance. While these studies support stronger controls, Ibeh (2025) cautioned that overregulation without clarity and efficiency may produce unintended consequences.

Another difference lies in methodological approaches. Ahmed (2021) adopted a doctrinal legal analysis, focusing mainly on legal gaps and comparative tax systems, whereas studies such as Awodele et al. (2026), Okeke and Eze (2023), and Adebayo and Usman (2022) employed empirical and statistical methods to examine behavioural and institutional determinants of compliance. Despite these methodological differences, the studies collectively acknowledge that weak regulation and inadequate institutional frameworks hinder effective cryptocurrency taxation.

A major trend across the reviewed studies is the increasing recognition that cryptocurrency taxation requires a combination of clear regulation, technological innovation, institutional strengthening, and taxpayer education. Earlier studies such as Ahmed (2021) mainly emphasized legal ambiguity and tax avoidance risks, while more recent studies

between 2023 and 2026 increasingly focused on technological enforcement systems, blockchain analytics, digital reporting frameworks, and behavioural compliance strategies. This indicates an evolving shift from purely legal concerns toward more integrated institutional and technological approaches to cryptocurrency tax administration.

Another observable pattern is that most studies consistently reported that weak institutional frameworks, lack of reporting standards, and limited enforcement capacity contribute significantly to tax non-compliance in digital asset transactions. At the same time, studies advocating digital education, automated reporting systems, and blockchain analytics demonstrated that compliance can improve when regulatory and institutional systems are strengthened.

Collectively, the reviewed studies provide strong evidence that cryptocurrency taxation in Nigeria is influenced by the interaction of regulatory frameworks, institutional capacity, compliance behaviour, and technological systems. However, most existing studies examined these variables separately by focusing either on regulation, technology, education, or enforcement in isolation. Few studies comprehensively integrated these factors within a single framework to explain cryptocurrency tax compliance in Nigeria.

This study differs by providing a more integrated analysis of how regulatory frameworks, compliance behaviour, and institutional capacity jointly influence cryptocurrency tax compliance and revenue mobilisation in Nigeria. It therefore extends existing literature by synthesizing legal, behavioural, institutional, and technological dimensions into a unified empirical investigation capable of providing broader policy recommendations for strengthening digital tax governance in Nigeria.

Despite the growing body of literature on cryptocurrency taxation in Nigeria, existing studies are largely descriptive, with limited empirical evidence on the direct impact of cryptocurrency transactions on tax compliance. Prior research has focused more on regulatory issues and taxpayer education rather than the interaction between crypto activity, enforcement mechanisms, and institutional capacity under the NTAA 2025. Additionally, the behavioural effects of regulatory measures have not been rigorously examined within the framework of Economic Deterrence Theory, highlighting the need for empirical investigation into how cryptocurrency transactions and evolving regulations influence tax compliance and enforcement effectiveness.

Methodology

The study adopts a quantitative explanatory design to examine the relationship between cryptocurrency transactions, regulatory frameworks, and tax compliance in Nigeria. The study adopted a stratified random sampling technique to

ensure adequate representation of major stakeholder groups involved in cryptocurrency taxation and compliance in Nigeria. The population was divided into five relevant strata based on professional involvement in cryptocurrency activities and tax administration. The strata included cryptocurrency traders, Virtual Asset Service Providers (VASPs), tax consultants, officials of tax authorities such as the Federal Inland Revenue Service, and financial/regulatory officials associated with digital asset monitoring.

The estimated study population was 2,000 respondents drawn from registered cryptocurrency communities, VASPs, tax consulting firms, and regulatory institutions in Nigeria. To determine the appropriate sample size, the study applied Yamane's (1967) formula at a 5% margin of error:

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

Where:

n = sample size

N = population size

e = margin of error (0.05)

Substituting the values into the formula:

$$n = \frac{2000}{1 + 2000(0.05)^2} = 333.33$$

The computed sample size was approximately 333 respondents. However, to improve representativeness and account for possible non-response or incomplete questionnaires, the sample size was increased to 400 respondents. The sample was proportionately distributed across the identified strata to ensure balanced representation of the different stakeholder categories involved in cryptocurrency transactions and tax administration.

All variables were measured using five-point Likert-scale questionnaire items. Cryptocurrency transactions (CT) were measured through trading frequency, transaction volume, and use of P2P platforms. Regulatory frameworks (RF) covered clarity of regulations, KYC requirements, and reporting guidelines. Tax education (EDU) focused on awareness and understanding of tax obligations, while enforcement strength (ENF) examined audits, penalties, and monitoring effectiveness. Digital monitoring infrastructure (TECH) assessed blockchain analytics and automated

reporting systems, whereas tax compliance (TC) measured timely reporting, accurate tax declaration, and voluntary compliance behaviour.

The study ensured content and construct validity through expert review and adaptation of questionnaire items from existing literature. Possible limitations such as self-report bias, self-selection bias, and the cross-sectional design were acknowledged. Diagnostic tests for normality, multicollinearity, and heteroskedasticity were also conducted to validate the regression models. Secondary data were used mainly for contextual support, while the sample size was scientifically determined using Yamane's (1967) formula.

Data were collected using both primary and secondary sources, with primary data gathered through structured Likert-scale questionnaires and secondary data from transaction records and regulatory documents. The questionnaire demonstrated strong reliability (Cronbach's alpha = 0.81–0.88). Data were analysed using descriptive statistics, correlation, and multiple regression in SPSS to test the hypotheses.

Model Specification

The study models tax compliance (TC) as a function of cryptocurrency transactions (CT) and regulatory frameworks (RF):

$$TC = f(CT, RF)$$

The baseline econometric model is specified as:

$$TC_i = \beta_0 + \beta_1 CT_i + \beta_2 RF_i + \epsilon_i$$

Where TC_i represents the level of tax compliance, CT_i denotes cryptocurrency transaction activity, RF_i captures the strength of regulatory frameworks, β_0 is the intercept, β_1 and β_2 are slope coefficients, and ϵ_i is the error term.

For robustness, the extended model incorporates control variables such as tax education (EDU), enforcement strength (ENF), and digital monitoring infrastructure (TECH):

$$TC_i = \beta_0 + \beta_1 CT_i + \beta_2 RF_i + \beta_3 EDU_i + \beta_4 ENF_i + \beta_5 TECH_i + \epsilon_i$$

Based on Economic Deterrence Theory, regulatory frameworks are expected to positively influence compliance ($\beta_2 > 0$). The effect of cryptocurrency transactions (β_i) may be negative if weakly regulated, creating opportunities for evasion, or positive if effectively monitored.

Results and Discussion

Socio-Demographic Profile and Cryptocurrency Engagement of Respondents

This section presents the socio-demographic characteristics and cryptocurrency engagement patterns of the study respondents. Understanding these profiles provides context for interpreting participants' tax compliance behaviors and interactions with regulatory frameworks in Nigeria.

Table 1: Socio-Demographic Characteristics and Cryptocurrency Usage Patterns of Respondents

Variable	Category	Frequency	Percent (%)
Age Group	18-25 yrs.	105	26.3
	26-35 yrs.	175	43.8
	36-45 yrs.	82	20.5
	46-55 yrs.	34	8.5
	> 56 yrs.	4	1.0
Gender	Male	274	68.5
	Female	123	30.8
	Prefer not to say	3	0.8
Educational Qualification	SSCE / Equivalent	43	10.8
	OND / NCE	78	19.5
	HND / Bachelor's Degree	166	41.5
	Master's Degree	95	23.8
	PhD / Professional Certification	18	4.5
Occupation	Cryptocurrency Trader / Investor	209	52.3
	MSME Owner / Merchant	98	24.5
	VASP Staff	17	4.3
	Tax Consultant / Auditor	35	8.8
	FIRS/State IRS Official	16	4.0
	Other	25	6.3
Years of Experience (Crypto)	Less than 1 year	85	21.3
	1-2 years	134	33.5
	3-5 years	131	32.8
	More than 5 years	50	12.5
TIN Awareness	Yes	161	40.3

	No	239	59.8
Crypto Platforms Used	Centralized Exchanges	93	23.3
	Decentralized Exchanges	177	44.3
	P2P Platforms	97	24.3
	Crypto Wallets only	22	5.5
	Others	11	2.8

Table 1 show that most respondents were young adults, particularly aged 26–35 years, with cryptocurrency activity concentrated among males. The majority held at least a HND or Bachelor’s degree, with many also possessing postgraduate qualifications, indicating a relatively educated user base.

Most participants were cryptocurrency traders or investors, with others being MSME owners, and had between one and five years of experience in the sector, reflecting growing engagement. Awareness of Tax Identification Numbers (TIN) was moderate, as a majority were unfamiliar with it, indicating gaps in tax knowledge. Decentralized exchanges were the most commonly used platforms, followed by P2P and centralized exchanges.

Data Analysis

This section presents the analysis of respondents’ cryptocurrency activities, tax compliance behavior, and perceptions of regulatory frameworks in Nigeria. Descriptive statistics summarize usage patterns and compliance, while regression analyses test the effects of cryptocurrency transactions and regulatory measures on tax compliance.

Effect of Cryptocurrency Transactions on Tax Compliance in Nigeria

This section examines how cryptocurrency activities relate to taxpayers’ compliance. Table 2 summarizes respondents’ transaction behaviors and self-reported adherence to tax obligations.

Table 2: Cryptocurrency Transactions and Tax Compliance

Items	SD	D	N	A	SA	Mean	Std. D.	Remark
Cryptocurrency Transaction Activity								
I frequently engage in cryptocurrency transactions for personal or business purposes.	3 (0.8%)	19 (4.8%)	15 (3.8%)	108 (27.0%)	255 (63.7%)	4.48	0.84	Very High
The monetary	3	14	26	108	249	4.47	0.85	Very High

value of my cryptocurrency transactions is usually significant. I use cryptocurrency because it offers convenience and lower transaction costs.	(0.8%)	(3.5%)	(6.5%)	(27.0%)	(62.3%)				
I rely on cryptocurrency for savings, trading, or remittance purposes.	3	16	23	111	247	4.46	0.86	Very High	
I often use P2P platforms or exchanges to conduct cryptocurrency transactions.	(0.8%)	(4.0%)	(5.8%)	(27.8%)	(61.8%)				
	0	13	19	105	263	4.55	0.74	Very High	
	(0.0%)	(3.3%)	(4.8%)	(26.3%)	(65.8%)				
	2	15	18	99	266	4.53	0.80	Very High	
	(0.5%)	(3.8%)	(4.5%)	(24.8%)	(66.5%)				
Total Mean Scores						4.49	0.82	Very High	
Tax Compliance:									
I file my tax returns within the required deadlines.	29	108	73	132	58	3.21	1.17	Moderate	
I accurately report all taxable income, including income from digital assets.	(7.2%)	(27.0%)	(18.3%)	(33.0%)	(14.5%)				
I am willing to comply with tax obligations if guidelines are clearly provided.	24	108	77	139	52	3.22	1.14	Moderate	
I make intentional efforts to avoid errors when completing tax	(6.0%)	(27.0%)	(19.3%)	(34.8%)	(13.0%)				
	31	90	85	141	53	3.24	1.16	Moderate	
	(7.8%)	(22.5%)	(21.3%)	(35.3%)	(13.3%)				
	29	120	79	125	47	3.10	1.15	Moderate	
	(7.2%)	(30.0%)	(19.8%)	(31.3%)	(11.8%)				

returns.

I believe paying taxes accurately is an important civic responsibility.	32 (8.0%)	111 (27.8%)	70 (17.5%)	135 (33.8%)	52 (13.0%)	3.16	1.18	Moderate
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Total Mean Scores	3.19	1.16	Moderate
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Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.; **Mean Range:**
1-1.79 = Very Low, 1.8-2.59 = Low, 2.60-3.39 = Moderate, 3.4-4.19 = High, 4.20-5.0 = Very High.

Table 2 shows that respondents reported very high engagement in cryptocurrency transactions (overall M = 4.49), indicating that it is a regular part of their financial activities, particularly through peer-to-peer platforms and frequent use for personal or business purposes. In contrast, tax compliance was moderate (overall M = 3.19), with only moderate adherence to filing returns and reporting income. This reveals a clear gap between high cryptocurrency activity and moderate tax compliance. These findings address Objective 1 by showing that active participation in cryptocurrency does not necessarily translate into strong tax compliance, highlighting the need for targeted measures to improve adherence.

Evaluating Regulatory Frameworks' Impact on Cryptocurrency Tax Enforcement in Nigeria

This section examines the role of regulatory frameworks in shaping tax enforcement and compliance in Nigeria's cryptocurrency sector, addressing Objective 2 of the study. Data were collected on tax education, enforcement practices, digital infrastructure, and respondents' awareness of existing regulations to evaluate how institutional measures influence adherence to cryptocurrency taxation requirements (see Table 3).

Table 3: Tax Knowledge, Enforcement, and Technology in Cryptocurrency Taxation.

Items	SD	D	N	A	SA	Mean	Std. D.	Remark
Tax Education:								
I have received information or training on how cryptocurrency transactions should be taxed.	43 (10.8%)	115 (28.7%)	74 (18.5%)	131 (32.8%)	37 (9.3%)	3.23	1.13	Moderate
Educational materials from tax authorities help me understand my	43 (10.8%)	126 (31.5%)	72 (18.0%)	115 (28.7%)	44 (11.0%)	3.20	1.15	Moderate

tax obligations.								
Tax education programs increase my willingness to comply with tax laws.	36 (9.0%)	118 (29.5%)	67 (16.8%)	132 (33.0%)	47 (11.8%)	3.28	1.13	Moderate
I feel confident in reporting crypto-related income after receiving tax guidance.	45 (11.3%)	120 (30.0%)	70 (17.5%)	116 (29.0%)	49 (12.3%)	3.23	1.16	Moderate
Public awareness about crypto taxation is adequate in Nigeria.	47 (11.8%)	115 (28.7%)	78 (19.5%)	121 (30.3%)	39 (9.8%)	3.18	1.15	Moderate
Total Mean Scores:						3.22	1.14	Moderate
Enforcement:								
Tax authorities actively enforce compliance related to cryptocurrency transactions.	32 (8.0%)	92 (23.0%)	75 (18.8%)	127 (31.8%)	74 (18.5%)	3.56	1.20	High
I believe there is a high likelihood of detection if I fail to report crypto-related income.	29 (7.2%)	113 (28.2%)	60 (15.0%)	143 (35.8%)	55 (13.8%)	3.54	1.18	High
Penalties for failing to report cryptocurrency income are strict enough to deter evasion.	33 (8.3%)	98 (24.5%)	75 (18.8%)	143 (35.8%)	51 (12.8%)	3.50	1.17	High
I know individuals or businesses who have been sanctioned for	29 (7.2%)	102 (25.5%)	71 (17.8%)	129 (32.3%)	69 (17.3%)	3.56	1.20	High

crypto-related tax offences.									
Increased enforcement actions encourage me to comply with tax rules.	28 (7.0%)	111 (27.8%)	71 (17.8%)	143 (35.8%)	47 (11.8%)	3.49	1.15	High	
Total Mean Scores:						3.53	1.18	High	
Technology / Digital Infrastructure:									
Tax authorities use digital systems capable of tracking cryptocurrency activities.									
The tax system has adequate tools to match crypto earnings with taxpayer records.									
E-filing platforms make it easier to report cryptocurrency transactions.									
Nigeria has reliable digital infrastructure to support monitoring of crypto taxation.									
Technology improves the effectiveness of regulatory frameworks for taxing digital assets.									
Total Mean Scores:						3.65	1.19	High	
Regulatory Frameworks:									
I am aware of	38	118	76	109	59	3.33	1.18	Moderate	

existing regulatory policies concerning cryptocurrency taxation.	(9.5%)	(29.5%)	(19.0%)	(27.3%)	(14.8%)			
The regulatory guidelines on cryptocurrency taxation are clear and easy to understand.	41 (10.3%)	106 (26.5%)	72 (18.0%)	125 (31.3%)	56 (14.0%)	3.34	1.19	Moderate
The current regulatory framework adequately addresses risks associated with cryptocurrency use.	33 (8.3%)	110 (27.5%)	73 (18.3%)	129 (32.3%)	55 (13.8%)	3.36	1.17	Moderate
The government has provided sufficient rules to support taxation of cryptocurrency transactions.	31 (7.8%)	125 (31.3%)	67 (16.8%)	124 (31.0%)	53 (13.3%)	3.30	1.16	Moderate
Regulatory agencies collaborate effectively to enforce cryptocurrency-related tax rules.	38 (9.5%)	118 (29.5%)	69 (17.3%)	120 (30.0%)	55 (13.8%)	3.31	1.17	Moderate
Total Mean Scores:						3.33	1.17	Moderate

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.; **Mean Range:**
1-1.79 = Very Low, 1.8-2.59 = Low, 2.60-3.39 = Moderate, 3.4-4.19 = High, 4.20-5.0 = Very High.

Table 3 shows respondents' perceptions of tax education, enforcement, technology, and regulatory frameworks in cryptocurrency taxation. Tax education was rated moderate (M = 3.22), indicating that while awareness and training exist, more robust guidance is needed to improve compliance. Enforcement received higher ratings (M = 3.53), suggesting that strong monitoring, penalties, and detection of non-compliance are perceived to be effective in encouraging compliance.

Technology and digital infrastructure were highly rated ($M = 3.65$), reflecting confidence in tools such as e-filing systems and tracking mechanisms that support tax administration. Regulatory frameworks were rated moderately ($M = 3.33$), indicating that while policies exist, improvements are needed in clarity, accessibility, and inter-agency coordination. Overall, the findings show that enforcement, technology, and regulatory structures play a significant role in promoting tax compliance among cryptocurrency users in Nigeria.

Test of Hypothesis

This section presents the results of the regression analyses conducted to test the study's hypotheses. Hypothesis 1 examines the effect of cryptocurrency transactions on tax compliance, while Hypothesis 2 evaluates the influence of regulatory frameworks and institutional factors on cryptocurrency taxation in Nigeria.

Hypothesis 1: Cryptocurrency transactions have no significant effect on tax compliance in Nigeria.

Table 3 presents the results of the regression analysis assessing the effect of cryptocurrency transactions on tax compliance in Nigeria.

Table 3: Effect of Cryptocurrency transactions on tax compliance in Nigeria.

Predictor	B	SE	<i>t</i>	<i>p</i>
Constant	2.720	0.310	8.774	<0.001
Cryptocurrency Transaction Activity	0.210	0.072	2.917	0.004

Model Summary: $R = 0.150$, $R^2 = 0.023$, **ANOVA:** $F(1, 398) = 5.040$, $p = 0.004$.

The findings show that cryptocurrency transaction activity positively and significantly predicts tax compliance ($B = 0.210$, $p = .004$), indicating that more frequent users tend to comply more with tax obligations. Although the model explains a small portion of the variance ($R^2 = 0.023$), the overall regression is statistically significant.

These results suggest that participation in cryptocurrency markets is linked to greater tax awareness and compliance, leading to the rejection of Hypothesis 1. The findings also emphasize the importance of understanding digital financial behaviour in promoting voluntary tax compliance. The section further introduces Hypothesis 2, which examines the impact of regulatory frameworks and institutional factors on cryptocurrency tax enforcement and effectiveness in Nigeria.

Hypothesis 2:Regulatory frameworks have no significant impact on the enforcement and effectiveness of cryptocurrency taxation in Nigeria.

Table 4: Effect of Regulatory Frameworks and Institutional Factors on Tax Compliance

Predictor	B	SE	<i>t</i>	<i>p</i>
Constant	0.894	0.285	3.132	0.002
Regulatory Frameworks	0.190	0.044	4.308	<0.001
Tax Education	0.198	0.047	4.246	<0.001
Enforcement	0.240	0.047	5.092	<0.001
Technology Infrastructure	0.097	0.044	2.199	0.028

Model Summary: $R = 0.391$, $R^2 = 0.153$, **ANOVA:** $F(4, 395) = 17.799$, $p < 0.001$.

Table 4 shows that regulatory frameworks, tax education, enforcement, and technology infrastructure all have positive and significant effects on tax compliance, with the model explaining 15.3% of the variance.

These results indicate that stronger regulatory systems, improved education, effective enforcement, and reliable digital infrastructure collectively enhance compliance with cryptocurrency taxation. Consequently, Hypothesis 2 is rejected, highlighting the importance of institutional measures in promoting tax adherence in Nigeria’s digital asset sector.

Conclusion

The study concludes that cryptocurrency transaction activity in Nigeria positively influences tax compliance, indicating that more active users are likely to adhere to tax obligations. Additionally, regulatory frameworks, tax education, enforcement, and technology infrastructure significantly enhance compliance, demonstrating the critical role of institutional measures in the digital asset sector. Overall, the findings highlight that both individual engagement in cryptocurrency and effective regulatory support are essential for improving voluntary tax compliance in Nigeria.

Recommendations

The findings highlight key policy measures to improve cryptocurrency taxation in Nigeria. Tax authorities should strengthen targeted training, workshops, and educational materials to boost awareness and voluntary compliance. Strong enforcement through active monitoring and consistent penalties should be sustained. Government should

expand digital tools such as e-filing, blockchain tracking, and automated reporting to enhance efficiency. Regulatory bodies should simplify guidelines, improve coordination, and communicate rules clearly to reduce confusion. Finally, targeted outreach and incentives for active users, especially young adults and traders, are essential to improve compliance.

References

- Adebayo, T., & Usman, M. (2022). Digital financial innovations and tax compliance behaviour in Nigeria. *Journal of African Fiscal Studies*, 8(2), 45–62.
- Ahmed, R. (2021). Legal and tax treatment of cryptocurrency transactions in Nigeria: A comparative analysis. *Nigerian Journal of Commercial Law*, 15(1), 88–104.
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Review*, 66(3), 577–593.
- Allingham, M. G. & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3–4), 323–338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Awodele, S., Ajayi, K., & Bello, R. (2026). Digital tax education and voluntary compliance among cryptocurrency traders in Nigeria. *African Journal of Taxation and Digital Economy*, 4(1), 12–29.
- Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy*, 76(2), 169–217. <https://doi.org/10.1086/259394>
- Business Day Nigeria. (2026). NTAA 2025: New compliance obligations for crypto platforms in Nigeria.
- CoinCentral. (2026). Understanding the OECD crypto-asset reporting framework (CARF).
- Ibeh, C. (2025). Regulatory challenges and the future of cryptocurrency taxation under Nigeria’s NTAA 2025. *Nigerian Financial Law Review*, 10(2), 55–73.
- Nairametrics. (2025). Crypto tax reforms may drive traders to P2P markets – Stakeholders warn.

- Nwangwu, C. (2026). Early implementation challenges of cryptocurrency taxation in Nigeria. *Business Day Nigeria*.
- Okeke, P. & Eze, J. (2023). Blockchain technology and tax audit effectiveness in Nigeria. *Journal of Accounting and Digital Systems*, 6(3), 101–118.
- Organisation for Economic Co-operation and Development (2023). *Crypto-asset reporting framework and amendments to the common reporting standard*. OECD Publishing. <https://doi.org/10.1787/93e30d7f-en>
- Organisation for Economic Co-operation and Development (2004). *Compliance risk management: Managing and improving tax compliance*. OECD Publishing.
- Olanrewaju, A. (2026). Nigeria records \$92.1 billion in crypto transactions within one year. *The Will News Media*.
- Pricewaterhouse Coopers. (2026). *Nigeria cryptocurrency market outlook 2026*. PwC Nigeria.
- Thiemann, M. (2024). Cryptocurrencies and tax compliance risks: A cross-jurisdictional analysis. *Journal of Financial Regulation and Compliance*, 32(2), 210–228.
- Wenzel, M. (2002). The impact of outcome orientation and justice concerns on tax compliance. *Journal of Applied Psychology*, 87(4), 629–645. <https://doi.org/10.1037/0021-9010.87.4.629>
- World Bank. (2022). *Enhancing institutional capacity for digital governance and tax administration in developing economies*. World Bank Publications.