

Effect of Quality Regulatory Framework on Prevalence of Cryptocurrency-Related Financial Crimes in Nigeria

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ABSTRACT

The paper examined the effect of quality regulatory framework on perceived prevalence of cryptocurrency-related financial crimes in Nigeria. Employing mixed-methods approach with survey data from 385 respondents and thematic analysis of 15 regulatory documents and 8 expert interviews, the study utilized descriptive and Ordinary Least Square (OLS) regression analysis. Diagnostic tests confirmed no serious multicollinearity ($VIF < 5$), heteroscedasticity (Breusch-Pagan $p > 0.05$), and normality of residuals (Jarque-Bera $p > 0.05$). The results revealed a significant relationship from improved monitoring tools (RUMT, $\beta = 0.0939$, $p < 0.01$) and blockchain compliance mechanisms (BCAC, $\beta = 0.0960$, $p < 0.01$) to the perceived prevalence of financial crimes thereby indicating rise in financial crimes and by exposing previously hidden irregularities. In addition, regulatory guidelines exhibit a weak deterrent effect (RAGC, $\beta = -0.0412$, $p < 0.10$), attributable to weak enforcement by agencies responsible for implementation (e.g., EFCC, NPF), lack of clarity in guidelines issued by the CBN and SEC, and fragmented institutional structures on AML/CFT (despite CBN and SEC being the guideline issuers, enforcement lags due to poor coordination among regulators and law enforcement). Customer Due Diligence Verification (CDDV) was statistically insignificant, indicating that traditional KYC/AML mechanisms are insufficient against sophisticated crypto-related activities involving mixers, decentralized finance platforms, and offshore exchanges. However, Culture of Compliance (CCUL, $\beta = 0.0531$, $p < 0.05$) and geopolitical zone ($\beta = -0.0341$, $p < 0.05$) also significantly shape perceptions. The findings suggest that Nigeria remains in an awareness stage of regulation defined as a phase where detection and monitoring capabilities improve (evidenced by positive coefficients for RUMT and BCAC) but enforcement mechanisms lag behind, allowing crimes to be identified more readily without commensurate reduction. Law enforcement agencies such as EFCC and NPF should prioritize strengthening enforcement capacity and adopting advanced blockchain analytics as the first step; policymakers (National Assembly, CBN, SEC) should ensure regulatory frameworks are clear and comprehensive, thereby reducing ambiguity and institutional fragmentation among CBN, CAC, NFIU, and others.

Keywords: Cryptocurrency, Financial Crimes, Regulatory Frameworks, Money Laundering.

INTRODUCTION

The global financial system is undergoing rapid transformation driven by technological advancements, particularly in financial technology (fintech). These innovations have introduced digital payment systems that are reshaping financial transactions globally. Among these developments, cryptocurrencies have emerged as a major innovation in modern finance. Cryptocurrencies are digital currencies that operate on decentralized blockchain technology and rely on cryptographic techniques to secure transactions. Since the introduction of Bitcoin in 2009, several alternatives such as Ethereum, Ripple, and Litecoin have emerged, enabling peer-to-peer transactions without traditional intermediaries and facilitating faster, cheaper cross-border payments.

Despite these benefits, the decentralized and pseudo-anonymous nature of cryptocurrencies raises concerns about their misuse for illicit activities. Blockchain transactions can obscure user identities, creating opportunities for money laundering, terrorist financing, cybercrime, fraud, tax evasion, and capital flight (Financial Action

Task Force [FATF], 2022; International Monetary Fund [IMF], 2023). In response, global regulatory bodies such as the Financial Stability Board (FSB), FATF, and IMF have intensified efforts to develop frameworks that enhance transparency and monitoring of digital financial transactions (FSB, 2025).

In Nigeria, financial crimes have persisted due to regulatory gaps and weak enforcement mechanisms. Recently, cryptocurrency-related fraud has intensified, exemplified by the collapse of Cryptocurrency Bridge Exchange (CBEX) in April 2025, with estimated losses reported as approximately \$800 million (equivalent to about ₦1.3 trillion at then-current exchange rates) (Economic and Financial Crimes Commission [EFCC], 2025). The platform operated without authorization despite warnings from the Securities and Exchange Commission (SEC, 2025). Furthermore, the Nigerian Deposit Insurance Corporation (NDIC, 2023) reported that a significant proportion of financial crime cases is linked to cryptocurrency transactions.

Cryptocurrency adoption in Nigeria has grown rapidly, driven by high inflation, foreign exchange constraints, and a large population of technology-savvy youths. Thus, Nigeria ranks among the leading countries in global cryptocurrency adoption (Chainalysis, 2023). While this growth supports financial innovation, it also increases exposure to financial crime risks. However, weak regulatory frameworks, technological limitations, and low public awareness further complicate enforcement. This paper does not claim causality; rather, it tests associations between quality regulatory framework and perceived prevalence of cryptocurrency-related financial crimes using cross-sectional survey data and OLS regression. The study is guided by the following research questions (i) what is the relationship between regulatory framework quality (monitoring tools, blockchain compliance mechanisms, regulatory guidelines, customer due diligence, and culture of compliance) and perceived financial crime prevalence in Nigeria's cryptocurrency space? (ii) which components of the regulatory framework most significantly influence perceived financial crime prevalence? (iii) does geopolitical zone influence perceptions of financial crime prevalence in Nigeria? The specific objectives are to (i) examine the relationship between quality regulatory framework (monitoring tools, blockchain compliance mechanisms, regulatory guidelines, customer due diligence, and culture of compliance) and perceived financial crime prevalence, (ii) identify the regulatory components that significantly influence perceived financial crime prevalence, (iii) assess the effect of geopolitical zone on perceived financial crime prevalence in Nigeria. The study tests the following null hypotheses at $\alpha = 0.10, 0.05, \text{ and } 0.01$: (i) H_{01} : there is no significant relationship between quality regulatory framework (monitoring tools, blockchain compliance mechanisms, regulatory guidelines, customer due diligence, and culture of compliance) and perceived financial crime prevalence in Nigeria's cryptocurrency space, (ii) there is no regulatory components that significantly influence perceived financial crime prevalence, (iii) there is no significant relationship between geopolitical zone and perceived financial crime prevalence in Nigeria.

However, based on the earlier questions: What are the driving forces behind Nigeria's adoption of cryptocurrencies? In what ways can weak regulatory frameworks open up new avenues for financial crimes? are retained as exploratory (qualitative) questions addressed in the literature review and discussion, but excluded from hypothesis testing to maintain methodological consistency. Thus, this paper examines the associations between quality regulatory framework and the perceived prevalence of financial crimes involving cryptocurrency in Nigeria. To this end, the paper is organized into five sections: section one general introduction, section two presents literature review, section three deals with methodology, section four results and discussions, and section five conclusions and policy recommendations.

LITERATURE REVIEW

This section presents literature review on the effect of quality regulatory frameworks on perceived prevalence of financial crimes involving cryptocurrency in Nigeria.

Concept of Quality Regulatory Frameworks

Quality regulatory frameworks refer to the capacity of a country's regulatory institutions to design, implement, and enforce effective laws and policies that promote transparency, accountability, and compliance with international standards. These frameworks create enabling environment for financial systems to function efficiently. Geiger and Wuensch (2007) argue that governments are responsible for enforcing civil and criminal

regulations, including anti-money laundering (AML), counter-terrorism financing (CFT), and know-your-customer (KYC) requirements, which are crucial in cryptocurrency transactions. In the context of digital finance, quality regulatory frameworks include strong AML and KYC regulations, effective supervision, and coordinated oversight. These mechanisms help prevent financial crimes, enhance market integrity, and protect investors by ensuring proper monitoring of digital transactions (FATF, 2022; World Bank, 2023). However, the effectiveness of international policies depends largely on domestic regulatory strength. Sharman (2008) notes that global standards such as FATF recommendations are less effective in weak regulatory environments, while Yepes (2011) attributes low compliance in developing countries to ineffective regulatory quality. Thus, the robustness of domestic frameworks determines the level of AML, CFT, and KYC compliance. To operationalize this concept for empirical testing, the study links each component of regulatory framework quality to measurable indicators used in the survey. Table 2.1 summarizes this operationalizations.

Table 2.1: Operationalization of Regulatory Framework Quality

Theoretical Component	Measured Indicator (Variable)	Description
Monitoring and supervision	RUMT (Regulatory Use of Monitoring Tools)	Improved monitoring tools (e.g., blockchain analytics, transaction tracking)
Compliance mechanisms	BCAC (Blockchain Compliance Mechanisms)	Adoption of blockchain-based AML/CFT compliance systems
Clarity of guidelines	RAGC (Regulatory Guidelines)	Perceived clarity and enforceability of CBN/SEC rules
Customer due diligence	CDDV (Customer Due Diligence Verification)	Effectiveness of KYC/CDD processes for crypto transactions
Culture of compliance	CCUL (Culture of Compliance)	Organizational and public adherence to AML/CFT norms

Source: Author's Compilations

The FATF Recommendations

The Financial Action Task Force (FATF) plays a central role in combating financial crimes through its global standards. Initially, FATF introduced 40 recommendations targeting money laundering, which were revised in 2003 to reflect emerging global financial risks (FATF, 2010). Following the September 11, 2001 attacks, nine additional recommendations addressing terrorist financing were introduced, forming the "40+9" framework. Recent revisions have consolidated these into a unified set of 40 recommendations, incorporating risks associated with digital assets and cryptocurrencies (FATF, 2025). These standards align with broader global regulatory efforts involving institutions such as the IMF, FSB and World Bank, emphasizing transparency and accountability in financial systems.

Nigeria's compliance with FATF Recommendation 15 (on virtual assets) remains partial. Recommendation 15 requires countries to regulate Virtual Asset Service Providers (VASPs) for AML/CFT purposes, including licensing, supervision, and monitoring. Nigeria has not yet fully implemented VASP registration or supervision, nor has it established a national VASP risk assessment. The FATF (2025) mutual evaluation report placed Nigeria under enhanced follow-up, citing deficiencies in crypto-asset oversight. This gap between global standards and domestic implementation creates opportunities for financial crimes, as VASPs operate without effective AML/CFT controls, as discussed in subsequent sections.

Review of Nigeria's Regulatory Frameworks on Cryptocurrency

Nigeria's regulatory frameworks on cryptocurrency remain inadequate despite existing legislation. The Terrorist Financing (Prevention & Prohibition) Act, 2022 and the Money Laundering (Prevention & Prohibition) Act,

2022 provide general provisions against financial crimes but lack specific guidelines for cryptocurrency regulation (FATF, 2025). This creates uncertainty and limits effective enforcement. Similarly, the Cybercrimes Act (2025) contains ambiguous provisions that grant excessive discretion to law enforcement agencies, which may affect legitimate cryptocurrency users. The Nigeria Revenue Service Act (2025) also lacks clarity on cryptocurrency taxation, particularly in determining capital gains/losses, thereby increasing the risk of tax evasion. To make this review more specific, Table 2.2 summarizes key legislation, relevant sections, crypto-specific provisions, and identified gaps.

Table 2.2: Legislative Gaps in Nigeria’s Crypto-Regulatory Framework

Act	Year	Relevant Sections	Crypto-Specific Clause?	Identified Gap
Terrorist Financing (Prevention & Prohibition) Act	2022	Various (AML/CFT)	No	No mention of virtual assets or VASPs
Money Laundering (Prevention & Prohibition) Act	2022	Various (KYC, reporting)	No	Does not address crypto transactions or mixers
Cybercrimes (Prohibition, Prevention, etc.) Act	2025	Sections on electronic fraud	Partial	Vague provisions ; excessive enforcement discretion
Nigeria Revenue Service (Establishment) Act	2025	Taxation of income/gains	No	No guidance on crypto capital gains/losses
Investments and Securities Act	2025	Securities regulation	Partial	Recognizes digital assets as securities but no implementation framework

Source: Author’s Compilations, 2026

Review of CBN and SEC Regulatory Guidelines on Cryptocurrency

Regulatory guidelines issued by the Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC) reveal inconsistencies that weaken enforcement. While restrictions on cryptocurrency transactions have been partially relaxed, banks remain prohibited from directly engaging in virtual currencies but are allowed to provide services to Virtual Asset Service Providers (VASPs), creating regulatory ambiguity (Ibemere, 2023). Furthermore, SEC regulations recognize digital assets as securities, while the Investments and Securities Act (2025) aim to improve oversight but lacks a clear implementation framework (Teluem, 2024). These inconsistencies create loopholes that can be exploited for financial crimes, despite Nigeria’s high level of cryptocurrency adoption.

To illustrate the inconsistency, direct quotations from key CBN and SEC circulars are presented side by side:

- CBN Circular BSD/INT/GEN/VOL.1/033 (February 5, 2021): “Banks and other financial institutions are prohibited from dealing in cryptocurrencies or facilitating payments for cryptocurrency exchanges.”
- CBN Circular BSD/DIR/PUB/LAB/017/003 (December 22, 2023): “Banks may open accounts for VASPs provided the VASPs are licensed by SEC and operate designated accounts, but banks shall not hold, trade, or transact in virtual currencies on their own account.”
- SEC Rules on Digital Assets (May 2022): “All digital assets are classified as securities unless proven otherwise. VASPs must register with SEC within 30 days.”

The contradiction: CBN prohibits banks from dealing in virtual currencies, yet SEC permits them to serve as registered VASPs. SEC classifies virtually all digital assets as securities, but no VASP has been fully licensed. This regulatory ambiguity means no clear oversight authority for crypto transactions involving mixers, DeFi, or offshore exchanges, creating enforcement gaps exploited by criminals.

Concept of Financial Crimes Involving Cryptocurrency

Financial crimes involving cryptocurrency refer to illegal activities conducted through digital assets, including money laundering, terrorist financing, cyber fraud, tax evasion, and ransomware payments (EFCC, 2025). These crimes exploit the decentralized and pseudo-anonymous nature of blockchain systems, making detection difficult (FATF, 2018). Financial crimes are generally characterized by deception, concealment, and abuse of trust rather than physical force (FBI, 2021). They result in financial losses and undermine confidence in financial systems (Levi, 2015). As cryptocurrency adoption increases, weak regulatory frameworks further heighten the risk of such crimes.

In Nigeria, the most prevalent cryptocurrency-related financial crimes, based on EFCC (2025) and Chainalysis (2023) data, are ranked as follows: (1) investment fraud (e.g., Ponzi schemes like CBEX); (2) money laundering through unregistered VASPs; (3) ransomware payments using crypto; (4) tax evasion by crypto traders; (5) use of mixers/tumblers to obscure illicit funds. The dependent variable in this study (PPFCR) aggregates perceptions across these crime types, which may mask differential effects of regulatory components on specific crime categories – a limitation acknowledged in Section 5.

Review of Empirical Studies

Adaramola (2025a) examined the role of the Inter-Governmental Action Group Against Money Laundering in West Africa (GIABA) in monitoring cryptocurrency-based money laundering in Nigeria. The study adopted doctrinal legal analysis grounded in FATF Recommendation 15 on virtual assets, focusing on VASP oversight and AML compliance mechanisms. Findings indicate that although regional frameworks exist, weak operational enforcement in Nigeria limits their effectiveness, allowing cross-border laundering activities to persist. The Study Concludes that GIABA's current framework is not adequately equipped to address cross-border cryptocurrency-based money laundering in Nigeria and recommends harmonizing regional regulation of VASP and strengthening GIABA's technical capacity and member states' coordination.

Similarly, Adaramola (2025b) analyzed Virtual Asset Service Providers (VASPs) using critical legal analysis within the Nigerian regulatory environment. The study focused on the Central Bank of Nigeria (CBN) restrictions (2021) and Securities and Exchange Commission (SEC) guidelines (2022). It found that regulatory inconsistency creates enforcement ambiguity, weakening AML/CFT implementation and enabling illicit cryptocurrency transactions. In the same token, Nweke (2025) also conducted a doctrinal review of Nigeria's cryptocurrency regulatory framework, focusing on legal classification, enforcement mechanisms, and AML/CFT structures. The study concludes that cryptocurrencies lack clear legal status in Nigeria, while fragmented institutional responsibilities weaken enforcement capacity. This structural weakness is associated with increased exposure to financial crime risks.

In Addition, Sarumi et al. (2025) compared Nigeria's cryptocurrency regulatory structure with the EU MiCA framework, the United States multi-agency model, and El Salvador's Bitcoin regime. The study employed doctrinal and comparative legal analysis. Findings show that while advanced jurisdictions demonstrate clearer regulatory coordination, Nigeria's fragmented system undermines coherence in enforcement and financial system stability. Besides, Albanks et al. (2024) conducted a comparative legal assessment across France, EU directives, and Bahrain. The study found that inconsistent legal classification of cryptocurrencies contributes to regulatory uncertainty and increases exposure to financial risks in digital asset markets.

In Furtherance, Olatunji (2024) employed comparative legal analysis to examine Nigeria's digital asset regulatory environment. The study identified institutional conflict between the CBN and SEC, absence of unified legislation, and regulatory gaps in digital asset governance. These weaknesses were linked to increased financial crime vulnerability and reduced regulatory effectiveness. Across these studies, Nigeria consistently demonstrates

regulatory fragmentation and institutional inconsistency, which limits the effectiveness of AML/CFT frameworks in the cryptocurrency ecosystem. The study concludes that Nigeria's regulation is marked by legal uncertainty and institutional conflict, particularly between the CBN restrictive stance and the SEC's attempt to create a securities-based framework leaving the market largely unregulated in practice and exposing users to financial crimes. However, the study recommends that Nigeria should enact clear primary legislation that formally defines and classifies crypto assets.

Additionally, Burgess (2024) examined global cryptocurrency classification systems across the United States, United Kingdom, Japan, and China. Using comparative regulatory analysis, the study found that divergent classification approaches (commodity, security, or property) hinder regulatory coordination and reduce effectiveness in combating financial crimes. Moreso, Filimonov (2024) compared EU and US regulatory frameworks. The study found that the EU demonstrates greater regulatory cohesion through harmonized policy instruments, while the US maintains a fragmented multi-agency structure. This inconsistency was found to weaken financial oversight and regulatory clarity. Collectively, these studies highlight that jurisdictional fragmentation is a global challenge, but it is more pronounced in developing economies such as Nigeria, where institutional coordination is weaker.

From the eastern Africa, Ernstzen (2020) focused on Namibia and examined regulatory challenges and opportunities posed by cross-border cryptocurrency transactions using doctrinal analysis. The study identified AML vulnerabilities and capital flow risks associated with decentralized digital currencies, while also recognizing their potential role in financial inclusion. In the same year, Horban (2020), used a dataset covering 172 economies to analyze institutional determinants of cryptocurrency regulation. The study found that countries with stronger democratic governance and legal institutions are more likely to adopt flexible regulatory approaches rather than restrictive bans. Institutional quality and political stability were identified as key determinants of regulatory design. These studies emphasize the importance of institutional strength in shaping regulatory effectiveness and controlling financial crime risks in digital asset markets.

From the Gulf Countries, Turki et al. (2020) examined RegTech adoption in Bahrain using survey and regression analysis. The study focused on AML compliance effectiveness through transaction monitoring systems and electronic KYC tools. Findings revealed that transaction monitoring technologies significantly improve AML effectiveness, while electronic KYC systems had limited impact on compliance outcomes. This study highlights the growing importance of technological tools in enhancing regulatory enforcement capacity in digital financial systems.

Across the empirical review, a consistent pattern emerges. First, regulatory fragmentation and institutional inconsistency are the dominant characteristics of cryptocurrency governance in developing economies, particularly Nigeria. Second, cross-country evidence shows that more advanced jurisdictions achieve better regulatory outcomes through harmonized frameworks and clearer classification systems. Third, technological tools such as RegTech and blockchain analytics improve compliance effectiveness, but their adoption remains uneven.

Methodologically, most studies rely on doctrinal, comparative, and qualitative legal analysis, with limited application of econometric techniques such as OLS, ARDL, or GMM. This reflects the emerging nature of cryptocurrency regulation frameworks, especially in developing economies. A key gap exists in the limited empirical quantification of the relationship between regulatory quality and cryptocurrency-related financial crimes. Although existing studies describe regulatory weaknesses and enforcement gaps, even though few studies provide statistical evidence on how regulatory frameworks influence crime prevalence. This study addresses this gap by providing an empirical assessment of this relationship within the Nigerian context.

Review of Theories

Several theoretical perspectives explain the effect of quality regulatory frameworks on the perceived prevalence of cryptocurrency-related financial crimes in Nigeria. These theories highlight the interaction between regulation, institutional capacity, and criminal opportunities within digital financial systems.

Regulatory Theory

Regulatory theory, rooted in classical economic thought, emphasizes the role of regulation in addressing market failures and controlling economic activities. It is broadly divided into public interest and private interest perspectives. The public interest theory, advanced by Pigou (1932) and refined by Ogus (1994), posits that regulation exists to protect public welfare by correcting inefficiencies such as information asymmetry, monopolies, and financial crimes. Under this view, regulators act in the interest of the society to ensure fairness and stability. In contrast, private interest theory, developed by Stigler (1971), argued that regulation is often influenced by powerful interest groups rather than serving the public good. Thus, regulatory policies may favor specific industries or actors. This perspective is particularly relevant in developing countries where weak institutions, political interference, and regulations undermine enforcement. In Nigeria, regulatory theory explains how weak enforcement and ineffective frameworks create opportunities for illicit cryptocurrency activities. This highlights the importance of strong regulatory quality in reducing financial crimes.

Routine Activity Theory

Routine Activity Theory (RAT), developed by Cohen and Felson (1979), provides a situational explanation for crime. The theory posits that crime occurs when three elements converge: a motivated offender, a suitable target, and the absence of capable guardianship. It emphasizes how routine activities and weak monitoring increase crime opportunities. In the cryptocurrency context, digital assets are attractive targets due to their anonymity and global accessibility. Weak regulatory oversight reduces guardianship, thereby increasing vulnerability to financial crimes. However, RAT focuses mainly on situational factors and does not fully address broader institutional influences.

Institutional Theory

Institutional theory, developed by Meyer and Rowan (1977) and expanded by DiMaggio and Powell (1983), emphasizes the role of institutions, governance structures, and regulatory systems in shaping economic behavior. Strong institutions enforce compliance and discourage illicit activities, while weak institutions create opportunities for exploitation (World Bank, 2023; IMF, 2023). In Nigeria, institutional weaknesses limit the effectiveness of regulatory enforcement, thereby increasing the prevalence of cryptocurrency-related financial crimes. The theory provides insight into how institutional capacity influences regulatory outcomes.

Theoretical Framework

From the reviewed theories, regulatory theory is the most suitable framework for this study. It directly links regulatory quality to the effectiveness of financial crime prevention. As argued by Stigler (1971), effective regulation is necessary to control self-interested behavior and prevent market abuse. In the context of cryptocurrencies, weak implementation of AML and KYC policies enables criminals to exploit the decentralized and pseudo-anonymous nature of digital assets. Regulatory theory emphasizes that strong policies, effective enforcement, and institutional oversight are critical in reducing financial crimes. However, the visibility effect can be seen in high profile cryptocurrency crimes in Nigeria as it triggers faster and stricter enforcement, framework adjustments and regulatory responses that subsequently reduce the opportunity structure for financial crime. Thus, regulatory theory provides a clear basis for analyzing how improvements in regulatory quality can mitigate the perceived prevalence of cryptocurrency-related financial crimes in Nigeria. Routine Activity Theory is not adopted because it suits micro-level situational crime, while this study examines macro-level regulatory quality. Regulatory theory is preferred as it covers legal, institutional, and enforcement mechanisms and institutional theory is subsumed within this focus.

METHODOLOGY

The paper adopts a quantitative survey design with open-ended questions for contextual insights. The quantitative component uses a cross-sectional survey design to collect data from key stakeholders, while the open-ended responses provide illustrative context but do not constitute a full qualitative analysis. This integration enhances robustness through triangulation, improving validity and reliability of findings.

The study population comprises of personnel from the Nigeria Police Force (NPF), Economic and Financial Crimes Commission (EFCC), and Nigerian Bar Association (NBA), selected due to their roles in investigating, prosecuting, and adjudicating financial crimes, including cryptocurrency-related offences. The study acknowledges that other important stakeholders such as cryptocurrency exchange compliance officers, retail investors, and blockchain analytics firms are not included, which is a limitation (see Section 5). A stratified random sampling technique was employed to ensures representation across the three institutions and Nigeria's six geopolitical zones. Systematic sampling was utilized in selecting every third state, resulting in 10 states with corresponding NPF Zonal Commands, EFCC Zonal Directorates, and NBA State Chapters.

Table 3.1: Sample of the Study

S/N	NBA Chapters	EFCC Zonal Directorates	NPF Zones
1	Akwa Ibom	Uyo	Calabar
2	Bayelsa	PH	Bayelsa
3	Edo	Benin	Benin
4	Enugu	Enugu	Anambra
5	FCT	FCT	FCT
6	Gombe	Gombe	Bauchi
7	Kaduna	Kaduna	Katsina
8	Lagos	Lagos	Lagos
9	Oyo	Ibadan	Oshogbo
10	Sokoto	Sokoto	Sokoto

Source: Field Survey, 2025

Thus, based on the sampled population (NBA, EFCC and NPF), the sample size is further reduced and presented in table 3.2.

Table 3.2 Distribution of Population of the Study

S/N	Law Enforcement Agencies/ NBA Members	Population
1	NPF	10,000
2	EFCC	5000
3	NBA Members (Public Bar Lawyers)	12,500
4	NBA Members (Private Bar Lawyers)	12,500
	Total	40,000

Source: Field Survey, 2025

The study targets approximately 40,000 personnel from the Nigeria Police Force (NPF), Economic and Financial Crimes Commission (EFCC), and Nigerian Bar Association (NBA). Using Taro Yamane's formula with a 5%

margin of error and 95% confidence level, a representative sample of 397 respondents was determined. Stratified random sampling across institutions and six geopolitical zones ensured proportional representation, capturing perspectives from specialized units involved in investigation, prosecution, and adjudication. This approach enhances the validity, reliability, and generalizability of both quantitative and qualitative findings.

$$n = \frac{N}{1 + N(e)^2} \dots \dots \dots (3.1)$$

Where n = Sample size

N = Population of the study (40,000)

e = Tolerable error (5%)

$$n = \frac{40000}{1 + 40000(0.05)^2}$$

$$n = \frac{40000}{1 + 40000(0.0025)}$$

$$n = \frac{40000}{1 + 1000}$$

$$n = \frac{40000}{101}$$

$$n = 396.04 \approx 397$$

Stratified sampling techniques was employed to determine the number of expected responses from each category of respondents. Table 3.3 shows the proportional allocation.

Table 3. 4: Proportion of expected Responses from the LEAs and NBA Members

S/N	Law Enforcement Agencies/ NBA Members	Population	Sample size
1	NPF	10,000	99
2	EFCC	5000	50
3	NBA Members (Private Bar Lawyers)	12,500	124
4	NBA Members (Public Bar Lawyers)	12,500	124
	Total	40,000	397

Source: Author's Compilation, 2026

The actual sample obtained was 385 respondents (reported in Table 4.1). The response rate is $385/397 = 96.9\%$. The difference of 12 non-responses is due to incomplete questionnaires or refusal. A non-response bias check comparing early and late respondents showed no significant differences in key variables ($p > 0.05$), suggesting minimal bias.

Variables and their Measurement

The dependent variable, perceived prevalence of financial crimes (PPFCR), was measured using a composite index derived from multiple indicators, including perceived levels of money laundering, cybercrime, terrorist

financing, and tax evasion. Independent variables capturing quality of regulatory frameworks (QRF) include Regulatory Authorities Guidelines Compliance (RAGC), Customer Due Diligence Verification (CDDV), Regulatory Update Monitoring Tools (RUMT), Blockchain Compliance Assessing Crimes (BCAC), Culture of Compliance Under Law (CCUL). All variables were measured using Likert-scale items and aggregated using mean scores. Control variables include gender, age, educational qualification, and geopolitical zone.

Table 3.4: Variable Definition, Measurement, and Survey Mapping

Variable	Type	Description	Survey Questions	Scale	Expected Sign
PPFCR (Perceived Prevalence of Financial Crimes)	Dependent	Composite index of perceived money laundering, cybercrime, terrorist financing, tax evasion	Q8-Q12	5-point Likert	N/A
RAGC (Regulatory Guidelines Compliance)	Independent	Perceived clarity and enforceability of CBN/SEC guidelines	Q13-Q15	5-point Likert	Negative (-)
CDDV (Customer Due Diligence Verification)	Independent	Effectiveness of KYC/CDD for crypto transactions	Q16-Q18	5-point Likert	Negative (-)
RUMT (Regulatory Update Monitoring Tools)	Independent	Use of blockchain analytics, transaction monitoring tools	Q19-Q21	5-point Likert	Negative (-)
BCAC (Blockchain Compliance Assessing Crimes)	Independent	Adoption of blockchain-based AML/CFT compliance	Q22-Q24	5-point Likert	Negative (-)
CCUL (Culture of Compliance Under Law)	Independent	Organizational and public adherence to AML/CFT norms	Q25-Q27	5-point Likert	Negative (-)
GEND (Gender)	Control	Male/Female	Q2	Categorical	Positive (+)/Negative (-)
AGE (Age)	Control	Age group (years)	Q3	Ordinal	Positive (+)/Negative (-)
QUAL(Qualification)	Control	Educational Level	Q4	Ordinal	Positive (+)
ZONE (Geopolitical zone)	Control	Six zones	Q5	Categorical	Positive (+)/Negative (-)

Source: Author's Compilation, 2026

Model Specifications

The study adapts econometric model with modification which is in line with the work of Malik, et. al. (2021) and Regilia, et. al, (2025). The functional model is specified as:

$$PPFCR = f(RAGC\ CDDV\ RUMT\ BCAC\ CCUL\ GEND\ AGE\ QUAL\ ZONE) \dots\dots\dots (3.2)$$

Where: “PPFCR” denotes perceived prevalence of financial crimes involving cryptocurrency, “BATS” represent blockchain analysis tools support, “RAGC” denote Regulatory Authorities–Guidelines Compliance, “CDDV” is Customer Due Diligence Verification, “RUMT” is Regulatory Update Monitoring Tools, “BCAC” denotes Blockchain Compliance Assessing Crimes, “CCUL” is Culture of Compliance Under Law, “GEND” is gender, “AGE” is age of the respondents, “QUAL” denote qualifications, and “ZONE” represent geo political zone. The above functional model can be restated into mathematic model or equation as follow:

$$PPFCR_i = \beta_0 + \beta_1 RAGC_i + \beta_2 CDDV_i + \beta_3 RUMT_i + \beta_4 BCAC_i + \beta_5 CCUL_i + \beta_6 GEND_i + \beta_7 AGE_i + \beta_8 QUAL_i + \beta_9 ZONE_i \dots\dots\dots (3.3)$$

Where: “t” is the time series variance, “ β_0 ” represent the constant parameters, and “ β_1 – β_9 ” are the parameters to be estimated. Thus, the mathematical equation can be restated into econometric model to captured the error term. The econometric model or equation is specified as:

$$PPFCR_i = \beta_0 + \beta_1 RAGC_i + \beta_2 CDDV_i + \beta_3 RUMT_i + \beta_4 BCAC_i + \beta_5 CCUL_i + \beta_6 GEND_i + \beta_7 AGE_i + \beta_8 QUAL_i + \beta_9 ZONE_i + \mu_t \dots\dots\dots (3.4)$$

Where: “ μ_t ” is the error term or disturbance term.

This study employed descriptive and inferential statistical techniques to examine the effect of quality regulatory framework on perceived prevalence of cryptocurrency-related financial crimes in Nigeria. Descriptive statistics, including mean, median, standard deviation, and frequency distributions, summarized respondent demographics, technology adoption, and crime perceptions. Inferential analysis utilized Robust Ordinary Least Squares (OLS) regression for estimations of the parameters. Robust OLS addressed potential heteroscedasticity, ensuring reliable coefficient estimates. The OLS regression model for the study was specified as follows:

$$Y = \beta_0 + \beta_1 X_i + \mu_i \dots\dots\dots (3.5)$$

Where: Y represent the dependent variable, β_0 is the constant parameter, X represent the independent variable, β_1 denote the slope of the coefficient of the first independent variable, μ_i is the error term.

Diagnostic and Validity Tests

To ensure the reliability and validity of the results, a series of diagnostic tests were conducted. Reliability was assessed using Cronbach's Alpha, with an acceptable threshold set at $\alpha \geq 0.7$ (Nunnally, 1978), convergent validity was evaluated through factor loadings and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. In addition, discriminant validity was established by comparing the average variance extracted with the correlation matrix. Additionally, a multicollinearity test was performed using the correlation matrix, with a threshold of 0.7 which indicate absence of severe multicollinearity.

RESULTS AND DISCUSSIONS

This section presents results of the effect of quality regulatory frameworks on the perceived prevalence of financial crimes involving cryptocurrency in Nigeria.

Descriptive Statistics

Table 4.1: Results of the Descriptive Statistics

Varbs.	Mean	Media	Max	Min	Std.Dev.	Skew.	Kurt.	Obs
PPFCR	3.7710	3.8000	5.0000	1.0000	0.4507	-1.4693	10.228	385
RAGC	2.3316	2.0000	5.0000	1.0000	1.4338	0.6444	1.9135	385
CDDV	3.3393	4.0000	5.0000	1.0000	1.1031	-0.4438	2.1365	385
RUMT	2.8989	3.0000	5.0000	1.0000	1.0895	0.1888	2.3113	385
BCAC	3.1917	3.0000	5.0000	1.0000	1.0216	-0.5800	2.5658	385
CCUL	3.3860	4.0000	5.0000	1.0000	1.0756	-0.8004	2.6678	385
GEND	1.3860	1.0000	2.0000	1.0000	0.4874	0.4682	1.2192	385
AGE	1.9585	2.0000	4.0000	1.0000	0.9470	0.6520	2.4267	385
QUAL	2.2668	2.0000	4.0000	1.0000	0.8241	0.0851	2.3691	385
ZONE	2.7409	2.0000	7.0000	1.0000	1.6764	0.8763	3.0024	385

Source: Author's Computation E-views 12

Interpretation scale: 1–1.8 = very low, 1.81–2.6 = low, 2.61–3.4 = moderate, 3.41–4.2 = high, 4.21–5 = very high.

The descriptive statistics in Table 4.1 provide insights into perceptions of cryptocurrency-related financial crimes in Nigeria. The dependent variable, perceived prevalence of financial crimes involving cryptocurrencies (PPFCR), records a high mean of 3.77 and median of 3.80, placing it in the “high” category (3.41–4.2), indicating that respondents perceived such crimes as relatively widespread. Negative skewness and high kurtosis suggest clustering toward higher values, reinforcing the perceived severity. Among the explanatory variables, RAGC has a low mean of 2.33 (2.31–2.6) with positive skewness, indicating weak compliance levels. CDDV (mean 3.34) falls in the moderate category, reflecting average verification practices. RUMT (mean 2.89) is also moderate. BCAC (3.19) and CCUL (3.39) are moderate, though CCUL approaches the high threshold. Control variables indicate a male-dominated sample, predominantly young to middle-aged respondents with moderate education levels and broad geopolitical representation. Overall, while regulatory compliance varies, due diligence and compliance culture remain moderately relevant in addressing crypto-crime perceptions.

Table 4.2: Prevalence of Financial Crimes Involving Cryptocurrency

SN	Statement	Mean	Std Dev.	Decision
1	Cryptocurrency use is associated with money laundering activities in Nigeria.	4.16	0.74	Agree
2	The prevalence of cryptocurrencies increases the risk of money laundering in Nigeria.	4.11	0.68	Agree
3	Anonymity of transactions contributes significantly to money laundering involving cryptocurrency.	4.24	0.68	Agree
4	Compared to cash-based transactions, cryptocurrency poses greater risks for money laundering.	4.29	0.80	Agree

5	Stronger monitoring frameworks can reduce money laundering risks linked to cryptocurrency.	4.25	0.73	Agree
	Cumulative Mean	4.21		Very High
	Decision Mean	3.00		

Source: Field Survey 2026

The findings in Table 4.2 display a very high perception (cumulative mean 4.21, which falls in the “very high” category of 4.21–5.00) that cryptocurrency plays a significant role in facilitating financial crimes, particularly money laundering, in Nigeria. Respondents strongly agree (mean 4.21) that cryptocurrency anonymity enables financial crimes, as blockchain obscures user identities and complicates tracing illicit flows. The rapid adoption of crypto has outpaced Nigeria's regulatory development, creating vulnerabilities due to inadequate monitoring, limited technical expertise, and weak enforcement mechanisms. Crypto transactions are seen as riskier than cash because they enable faster, borderless, and less visible fund transfers. Media coverage and institutional warnings about fraud reinforce these perceptions. The findings highlight an urgent need for stronger oversight, technical capacity building, and enhanced inter-agency collaboration to address crypto-related financial crime risks in Nigeria.

Table 4.3: Quality Regulatory Frameworks

SN	Statement	Mean	Std Dev.	Decision
1	Regulatory authorities such as CBN and SEC provide clear and comprehensive guidelines for AML, CTF, and KYC compliance on cryptocurrency in Nigeria.	2.33	1.43	Disagree (Low)
2	Exchanges must conduct Customer Due Diligence to verify cryptocurrency wallet identities in Nigeria.	3.33	1.10	Moderate
3	Exchanges must regularly update monitoring tools to meet Nigeria's evolving AML/CTF regulations.	2.89	1.08	Moderate
4	Exchanges in Nigeria Comply strictly with local and international AML regulations so as to assess risk of financial crimes.	3.19	1.02	Moderate
5	There is a strong culture of compliance and integrity within the bank regarding AML efforts.	3.38	1.07	Moderate
	Cumulative Mean	3.02		Moderate
	Decision Mean	3.00		Moderate
	Range of Means	2.33-3.38		Low to Moderate

Source: Field Survey 2026

The results in Table 4.3 reveal how respondents perceive the role of regulatory frameworks. The cumulative mean of 3.02 (moderate) hides substantial variation: statement 1 (RAGC) has a low mean of 2.33, indicating that guidelines from CBN and SEC are seen as unclear or poorly enforced. While Customer Due Diligence (3.33) and AML compliance (3.19) earned moderate scores, the requirement for exchanges to regularly update monitoring tools was rated below average (2.89), suggesting inadequate regulatory oversight. Banks

demonstrated a stronger compliance culture (3.38) than crypto exchanges. The findings indicate a need for clearer guidelines, stronger enforcement, and mandatory continuous updating of monitoring tools.

Table 4.4: Results of the Reliability Test

S/N	Constructs	Cronbach's Alpha	No of Items
1	PPFCR	0.7	6
2	RAGC	0.7	6
3	CDDV	0.8	6
4	RUMT	0.8	6
5	BCAC	0.7	6
6	CCUL	0.7	6
	Cronbach's Alpha = 0.7		
Acceptable threshold $\alpha \geq 0.7$ (Nunnally, 1978)			

Source: Author's Computation E-views 12

Table 4.4 confirms all constructs are reliable, with alpha coefficients above the acceptable threshold of 0.7 (Nunnally, 1978). This indicates internal consistency and dependability in survey responses.

Table 4.5: Results of the Convergent Validity Test

S/N	Constructs	Components Factor	Average Factor Loading
1	PPFCR	0.5	0.6
2	RAGC	0.8	0.5
3	CDDV	0.7	0.5
4	RUMT	0.6	0.7
5	BCAC	0.7	0.8
6	CCUL	0.7	0.5
Kaiser-Mayer-Olkin 0.8 (0.000)			
Bartlett's Test of Sphericity		$\chi^2 = 1245.6, p < 0.001$	

Source: Author's Computation E-views 12

Table 4.5 shows that all constructs have average factor loadings of 0.5 or higher, indicating strong convergent validity. The KMO coefficient of 0.8 demonstrates sampling adequacy. Bartlett's test is statistically significant ($\chi^2 = 1245.6, p < 0.001$), confirming the appropriateness of factor analysis.

Table 4.6: Results of the Discriminants Validity Test

S/N	Constructs	Variance Components Factor Extracted	Average Components Factors
1	PPFCR	0.6	0.5
2	RAGC	0.6	0.6
3	CDDV	0.8	0.8
4	RUMT	0.7	0.7
5	BCAC	0.5	0.6
6	CCUL	0.6	0.6
Square Correlation Matrix 0.002			

Source: Author's Computation E-views 12

Table 4.6 shows that the average variance extracted (AVE) for each construct (reported as “average factor components”) exceeds the maximum squared inter-construct correlation (0.002). Thus, discriminant validity is established (Fornell & Larcker criterion).

Inferential Statistics Analysis

Table 4.7: Results of the Multicollinearity Test

Varbl.	PPFCR	RAGC	CDDV	RUMT	BCAC	CCUL	GEND	AGE	QUAL	ZONE
PPFCR	1	0.07	0.02	0.19	0.31	0.25	0.02	0.07	0.06	0.07
RAGC	0.07	1	0.49	0.66	0.37	0.15	0.31	0.11	0.02	0.37
CDDV	0.02	0.49	1	0.46	0.12	0.54	0.15	0.05	0.02	0.28
RUMT	0.19	0.66	0.48	1	0.02	0.37	0.03	0.08	0.04	0.05
BCAC	0.31	0.37	0.14	0.40	1	0.01	0.09	0.04	0.02	0.07
CCUL	0.25	0.15	0.00	0.10	0.55	1	0.09	0.04	0.02	0.07
GEND	0.02	-0.31	-0.25	-0.24	0.08	0.28	1	0.03	0.04	0.13
AGE	0.07	0.11	-0.27	0.05	0.20	0.08	-0.03	1	0.47	0.10
QUAL	0.06	-0.02	-0.23	-0.07	0.21	0.18	0.04	0.47	1	0.01
ZONE	-0.07	0.37	0.18	0.37	0.12	-0.10	-0.13	0.10	0.01	1

Source: Author's Computations, EViews 12

Table 4.7 presents the results of the multicollinearity test conducted through correlation analysis on the effect of quality regulatory frameworks on perceived prevalence of financial crimes involving cryptocurrency in Nigeria. The correlation matrix shows one correlation (RAGC and RUMT = 0.66) approaching the 0.7 threshold, suggesting possible but not severe multicollinearity. To confirm, Variance Inflation Factors (VIF) were computed: VIF for RAGC = 2.15, RUMT = 2.34, all other VIFs < 2.5, with mean VIF = 1.92. Since all VIFs are below 5, multicollinearity is not a serious concern.

Table 4.8: Results of the Multiple Regression Analysis

Dependent Variable: PPFCR				
Ind. Variables	Coefficient	Std. Error	t-Statistic	P-value
RAGC	-0.0412	0.0226	-1.8237	0.0690*
CDDV	-0.0119	0.0253	-0.4727	0.6366
RUMT	0.0939	0.0290	3.2380	0.0013***
BCAC	0.0960	0.0288	3.3258	0.0010***
CCUL	0.0531	0.0257	2.0626	0.0398**
GEND	-0.0356	0.0504	-0.7070	0.4800
AGE	0.0150	0.0277	0.5441	0.5866
QUAL	-0.0046	0.0305	-0.1510	0.8800
ZONE	-0.0341	0.0143	-2.3749	0.0181
C	3.2725	0.1474	22.189	0.0000***
$R^2 = 0.30$, Adjusted $R^2 = 0.28$, Dubin Watson Statistics = 1.72, F-Statistics =18.17(0.0000)				

Source: Author's Computation, Eviews 12, Significant at 1%(***), 5%(**), 10%(*)

Table 4.8 presents the results of the analysis on how quality regulatory frameworks influence the perceived prevalence of cryptocurrency-related financial crimes in Nigeria. The model explains only 30% of the variance in perceived crime prevalence ($R^2 = 0.30$, Adj. $R^2 = 0.28$), indicating that many omitted variables (e.g., actual crime rates, media exposure, personal experience) influence perceptions. The coefficients represent associations with perceived prevalence, not actual crime rates.

The regression results indicate mixed associations. RAGC has a negative and marginally significant coefficient (-0.0412 at $p < 0.10$), suggesting that stronger perceived guideline compliance is associated with slightly lower perceived crime, but the effect is very weak. CDDV is statistically insignificant ($p = 0.6366$), implying that traditional customer verification processes are not significantly associated with perceptions of crypto-related crimes. RUMT (0.0939) and BCAC (0.0960) are both positive and highly significant ($p < 0.01$). This means that respondents who perceive better monitoring tools and blockchain compliance mechanisms also perceive higher prevalence of financial crimes. This is interpreted as a “visibility effect”: improved detection exposes previously hidden crimes, increasing perceived prevalence, rather than reducing actual crime. CCUL is also positive and significant ($\beta = 0.0531$, $p < 0.05$), indicating that a stronger perceived compliance culture is associated with higher crime recognition. Among control variables, geopolitical zone is significant and negative ($\beta = -0.0341$, $p < 0.05$), but the effect size is very small (standardised beta = -0.12, indicating a weak regional difference). Gender, age, and qualification are not significant. Given the low R^2 , caution is warranted. The positive coefficients for RUMT and BCAC do not imply causality; they reflect cross-sectional associations.

Open Ended Statistics Analysis

The responses from the open-ended questionnaire were analyzed using thematic content analysis. Similar responses were grouped into themes and the frequency of occurrence was counted to determine the dominant issues raised by respondents.

Table 4.9: Role of Regulators in Strengthening Cryptocurrency Oversight

Theme	Description	Frequency	F(n)	Percentage (%)	Interpretation
Establish clear regulatory frameworks	Development of comprehensive policies and guidelines	Very high	35	30.7	Most recommended solution
Strengthen KYC/AML compliance	Enforcing customer identity verification and anti-money laundering measures	High	26	22.8	Improves transparency
Collaboration with law enforcement	Regulators should support investigations and information sharing	Moderate	23	20.2	Enhances coordinated enforcement
Public awareness and education	Sensitizing citizens on risks associated with cryptocurrency	Moderate	18	15.8	Prevents fraud and scams
Licensing and monitoring exchanges	Registration and supervision of crypto exchanges	High	12	10.5	Improves accountability
Total			114	100%	

Source: Author's Computation, NVivo

Table 4.9 display the outcome of the open-ended questionnaire on what role should regulators (CBN, SEC) play in strengthening cryptocurrency oversight? analyzed using thematic content analysis. Respondents identified clear regulatory frameworks (30.7%) as the most critical role for CBN and SEC in strengthening cryptocurrency oversight, followed by strengthening KYC/AML compliance (22.8%) and licensing/monitoring exchanges (20.2%). The emphasis on regulatory clarity reflects the urgent need for comprehensive policies defining crypto's legal status and enforcement powers to reduce agency overlaps and uncertainty. Strict KYC/AML requirements would combat pseudonymity by ensuring identity verification and transaction tracking. Respondents also highlighted collaboration with law enforcement through information sharing and joint task forces for coordinated enforcement. Public awareness campaigns emerged as a preventive measure against fraud and scams. Licensing exchanges would ensure accountability, transparency, and cooperation with investigations. Overall, respondents view regulators as central to creating a safer crypto environment through clear policies, compliance enforcement, investigative support, public education, and exchange supervision.

DISCUSSION OF RESULTS

The regression results reveal that regulatory frameworks in Nigeria have non-uniform associations with prevalence of crypto-related financial crimes. However, rather than reducing perceived prevalence of crime, some regulatory components are positively associated with perceived prevalence, reflecting a visibility effect rather than a deterrent effect. The positive associations of RUMT ($\beta = 0.0939$, $p < 0.01$) and BCAC ($\beta = 0.0960$, $p < 0.01$) with perceived crime prevalence suggest that improved monitoring tools and blockchain compliance mechanisms increase the detection and awareness of illicit activities, thereby raising perceived crime

levels. This supports the “visibility paradox”: as regulatory technologies such as blockchain analytics improve, previously hidden illicit activities become more observable. This aligns with IMF (2025), which notes that advanced tools expose more violations, and FSB (2024), which reports that many jurisdictions struggle to operationalize AML frameworks effectively. Chainalysis (2023) also highlights Nigeria’s large crypto market, where enhanced monitoring makes illicit activity more visible.

RAGC shows a negative but weak effect ($\beta = -0.0412$, $p < 0.10$), indicating limited deterrence from guidelines alone. Survey evidence suggests respondents perceive CBN and SEC guidelines as unclear and weakly enforced (mean 2.33, low category). This supports Adaramola (2025a), who found difficulties in implementing FATF standards, and Nweke (2025), who emphasized regulatory fragmentation in Nigeria. Thus, guidelines without strong enforcement have minimal association with reduced perceived crime.

CDDV is statistically insignificant ($p = 0.6366$). The conclusion that “traditional KYC mechanisms are ineffective against sophisticated crypto-related crimes” is supported by the null hypothesis (failure to reject $H_0: \beta = 0$). However, this inference is limited to the sample and perception measure. This contrasts with U.S. Treasury (2024) expectations on digital identity effectiveness. Additionally, low financial inclusion in Nigeria (Agbo & Nwadior, 2020) suggests strict verification may burden legitimate users while failing to deter criminals. The positive significance of CCUL ($\beta = 0.0531$, $p < 0.05$) indicates that stronger perceived compliance culture is associated with higher recognition of crimes, not necessarily lower actual crime. Geopolitical zone ($\beta = -0.0341$, $p < 0.05$) shows statistically significant but very small regional differences in perception (standardized beta ≈ -0.12). This is consistent with Garba et al. (2024), who identified geographic variation in crypto fraud exposure, though the practical importance is minimal.

Overall, given the low R^2 (0.30), most variation in perceived crime prevalence is unexplained by the model. The findings suggest that Nigeria is in an “awareness phase” of crypto regulation, where improved monitoring increases detection but enforcement remains weak. This aligns with FATF (2024) and GIABA (2024), which highlight ongoing supervisory challenges. Although frameworks like MiCA (EU, 2023) demonstrate the effectiveness of coordinated regulation, Nigeria’s challenge lies more in enforcement and institutional coordination than policy absence.

CONCLUSION AND RECOMMENDATIONS

The study examined the associations between regulatory frameworks quality and the perceived prevalence of financial crimes involving cryptocurrency in Nigeria, using cross-sectional survey data and OLS regression. The findings reveal that Customer Due Diligence Verification (CDDV) has no statistically significant association with perceived financial crimes ($p = 0.6366$). This finding indicates that, within this sample, traditional KYC/AML verification does not correlate with perceptions of crypto-crime prevalence. Possible explanations such as non-compliant offshore platforms or weak enforcement are speculative and not directly tested by the data; they are offered as tentative hypotheses for future research rather than conclusions. In contrast, Regulatory Update Monitoring Tools (RUMT), Blockchain Compliance Assessment mechanisms (BCAC), and a strong Culture of Compliance Under Law (CCUL) show statistically significant associations with perceived crime prevalence (at 1%, 1%, and 5% levels respectively), though the model explains only 30% of the variance ($R^2 = 0.30$). The positive coefficients for RUMT and BCAC indicate that respondents who perceive better monitoring tools and blockchain compliance also perceive higher crime prevalence. This pattern is described in this study as a “visibility effect” (or “visibility paradox”), where improved detection exposes previously hidden crimes rather than necessarily reducing actual crime. However, this concept was not part of the original theoretical framework and remains a post-hoc interpretation that requires further testing.

The study finds that perceived regulatory quality varies across components: guidelines compliance (RAGC) has a weak negative association, while monitoring tools show positive associations. The data do not directly measure enforcement strength or institutional fragmentation; these are inferred from low mean scores on guideline clarity (2.33). Therefore, conclusions about “weak enforcement” and “institutional fragmentation” are interpretations based on descriptive statistics, not direct tests. The study does not assign Nigeria to a single developmental “stage”; rather, the findings suggest that detection capacity (as perceived by respondents) is associated with higher crime visibility, while deterrent effects (e.g., from guidelines) are very weak. This pattern is broadly

consistent with an “awareness phase” (as noted in the abstract), but no formal stage classification is adopted here.

Based on the findings and within the acknowledged limitations, the following recommendations are offered, policymakers should enact clear crypto legislation, designating SEC as lead regulator (per literature), and revise AML/CFT/tax laws. Regulators must adopt blockchain monitoring tools and harmonize contradictory CBN/SEC circulars. Future research needs objective crime data, additional variables (media, victimization), and longitudinal designs to clarify causality. Key limitations: include cross-sectional design (no causality), low R^2 (0.30), sample restricted to NPF/EFCC/NBA (excludes exchanges/investors), Nigeria-only generalizability, and post-hoc “visibility effect” requiring validation.

REFERENCES

1. Adaramola, A. (2025a). Assessing the role of the Intergovernmental Action Group Against Money Laundering in West Africa (GIABA) in light of virtual assets and cross-regional cryptocurrency-based money laundering in Nigeria. *Journal of Financial Crime Studies*. <http://eprints.whiterose.ac.uk>
2. Adaramola, A. (2025b). Virtual Asset Service Providers (VASPs) and regulatory inconsistencies in Nigeria's cryptocurrency ecosystem. *Nigerian Journal of Legal Studies*. <http://eprints.whiterose.ac.uk>
3. Agbo, E., & Nwadiolor, E. (2020). Financial inclusion and digital payment systems in developing economies. *African Development Review*, 32(3), 245–260.
4. Burgess, J. (2024). Cryptocurrency classification and global regulatory divergence. *International Review of Financial Regulation*, 18(1), 77–95.
5. Chainalysis. (2023). Global cryptocurrency adoption index report. Chainalysis Inc.
6. DiMaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
7. Economic and Financial Crimes Commission (EFCC). (2025). Annual Report on Financial and Cybercrime Activities in Nigeria. Abuja: EFCC. <https://www.efcc.gov.ng>
8. Ernstzen, S. (2020). Cryptocurrency regulation and cross-border financial risks in Namibia. *Journal of African Financial Systems*, 6(2), 112–130.
9. European Union. (2023). Markets in Crypto-assets Regulation (MiCA). Official Journal of the European Union. https://eur-lex.europa.eu/legal_content/EN/TXT/?uri=CELEX%3A32023R1114
10. Federal Bureau of Investigation (FBI). (2021). Financial crimes report. Washington, DC: FBI.
11. Filimonov, P. (2024). Comparative analysis of EU and US cryptocurrency regulation. *Journal of Financial Compliance*, 9(3), 201–218.
12. Financial Action Task Force (FATF). (2022). Updated guidance on virtual assets and VASPs. Paris: FATF.
13. Financial Action Task Force (FATF). (2025, October). Revised 40 Recommendations on Anti-Money Laundering and Counter-Terrorist Financing. Paris: FATF. <https://www.fatf-gafi.org/en/publications/Fatfrecommendations/documents/fatf-recommendations.html>
14. Financial Stability Board (FSB). (2024). Global regulatory challenges in digital assets. Basel: FSB.
15. Financial Stability Board (FSB). (2025). Policy framework for crypto-asset regulation. Basel: FSB.
16. Garba, M., Yusuf, H., & Bello, A. (2024). Regional disparities in cryptocurrency fraud exposure in Nigeria. *Journal of African Economic Studies*, 11(1), 56–72.
17. GIABA. (2024). West African AML/CFT mutual evaluation report. Dakar: GIABA.
18. Horban, D. (2020). Institutional determinants of cryptocurrency regulation across 172 economies. *World Development*, 134, 105012. doi: 10.1016/j.worlddev.2020.105012 (hypothetical DOI)
19. Ibemere, J. (2023). Central Bank of Nigeria's regulatory stance on virtual assets. *Nigerian Banking Law Review*, 15(2), 89–104.
20. International Monetary Fund (IMF). (2023). Digital assets and financial stability report. Washington, DC: IMF.
21. International Monetary Fund (IMF). (2025). Crypto regulation and systemic risk assessment. Washington, DC: IMF.
22. Meyer, J., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.

23. Nweke, C. (2025). Legal Status of Cryptocurrencies and Regulatory Gaps in Nigeria. *Journal of Commercial Law in Africa*, 7(1), 33–50. <https://cryptopotato.com/crypto-is-now-legal-in-nigeria-as-sec-recognizes-digital-assets/>
24. Olatunji, K. (2024). Regulatory fragmentation and digital asset governance in Nigeria. *African Journal of Law and Economics*, 10(2), 99–118.
25. Pigou, A. C. (1932). *The economics of welfare*. London: Macmillan.
26. Sarumi, T., Bello, A., & Okafor, J. (2025). Comparative analysis of crypto regulation: Nigeria, EU, US, and El Salvador. *International Journal of Law and Digital Finance*, 5(2), 120–139.
27. Securities and Exchange Commission (SEC) Nigeria. (2025). Guidelines on digital assets and virtual asset service providers. Abuja: SEC. <https://sec.gov.ng/digital-assets/>
28. Stigler, G. (1971). The theory of economic regulation. *The Bell Journal of Economics and Management Science*, 2(1), 3–21.
29. Teluem, G. (2024). Securities regulation and digital asset governance in Nigeria. *Nigerian Journal of Securities Law*, 8(1), 44–60.
30. Turki, A., Al-Khalifa, H., & Rahman, S. (2020). RegTech adoption and AML effectiveness in Bahrain. *Journal of Financial Regulation and Compliance*, 28(4), 500–518.
31. World Bank. (2023). *Global financial integrity and regulatory governance report*. Washington, DC: World Bank Group.