

Cryptocurrency and cybercrime in Nigeria: A double-edged sword

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Abstract

This paper explores how cryptocurrency affects Nigeria's socio-economic and digital landscape, highlighting both its potential as an instrument of economic leveraging and its use in cybercrime. It explores how the decentralized characteristics of cryptocurrencies facilitate innovation and financial inclusion — and allow for anonymity, too, that enables cybercriminal activities.

Today, cryptocurrency is a hot topic around the world. Nigeria, which registers some of the highest cryptocurrency adoption rates in the world, has used this class of digital asset as a key enabler of both breaking with traditional banking constraints and promoting economic resilience. But its decentralized and anonymous design also stands as a superpower to various forms of cybercrimes, from fraud and ransomware to money laundering. Such duality offers serious challenges to policymakers, law enforcement agencies, and financial institutions.

The paper explores Nigeria's regulatory experiences, technological barriers, and ethical dilemmas through in-depth analysis and case studies. This paper analyzes the phenomenon of cryptocurrency and cybercriminality in Nigeria, a phenomenon in which innovative technologies can be used as a vehicle for socioeconomic empowerment but also as a space for illegal activities. It examines case studies and statistical analyses revealing the systemic exploitation of cryptocurrency by cybercriminals and assessing the effectiveness of current legal and regulatory frameworks. This is against international best practices that expose Nigeria to grave dangers in tackling cybercrime linked to cryptocurrencies.

We make sure that both the opportunities and threats it offers become bearable in how we balance the opportunities with threats this technology presents. Prescribing solutions for these challenges, the report highlights the importance of improving the regulatory environment, enhancing law enforcement capability in cyberspace, and developing a partnership between the private and public sectors to strike an appropriate balance between innovation and security. The research sent a clear message that articulated an approach to policy that would make the most of the potential of cryptocurrency while mitigating its weaknesses. Addressing these matters will allow Nigeria to seize the opportunities presented by cryptocurrency without compromising its frontier of digital security.

Keywords: Cryptocurrency; Cybercrime, Nigeria; Financial Inclusion; Blockchain, Cybersecurity; Ransomware; Money Laundering; Regulation; Law Enforcement; Digital Economy

1. Introduction

Despite its volatility, cryptocurrency is changing the world's economy. Cryptocurrency adoption in Nigeria skyrocketed in response to a young age population, high smartphone adoption, and an underdeveloped traditional banking system. According to Chainalysis (2022), they fall within the top ten nations worldwide, noting this digital development has the potential of leading to empowerment and economic change.

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But the same characteristics that have made cryptocurrency appealing — decentralization, anonymity, efficiency — have made it appealing for cybercrime too. Cryptocurrencies have added a new layer of cybercriminal activity in Nigeria, a country already grappling with high levels of cyber fraud. The dark side of cryptocurrency, as well as a significant challenge to both law enforcement and regulatory authorities, includes cybercriminal activities (Okoye & Ani, 2020) such as ransomware attacks, Ponzi schemes, and money laundering.

The twin digital of creation and destruction, innovation and crime. But for Nigeria, the challenge is getting the model right on this double-edged sword, balancing the opportunities and risks and harmonizing efforts to create more opportunities to reduce the risks.

This paper attempts to elaborate on this dichotomy, while focusing on challenges congruent to the socio-economic, technological, and regulatory environment in Nigeria. It examines the role of cryptocurrency in the spread of cybercrime, the existing legal and institutional arrangements, and the moral and societal implications of these developments. This analysis aims to provide guidance to policymakers, engineers, and other stakeholders.

2. Methodology

The research methodology employed in this study integrates qualitative approaches to comprehensively examine the dual impact of cryptocurrency on Nigeria's socio-economic and digital security landscape. This section details the research design, and the framework for case study evaluations.

2.1. Research Design

The study adopts an exploratory design to analyze how cryptocurrency serves as both a tool for economic inclusion and an enabler of cybercrime in Nigeria. The research framework focuses on three key dimensions

- **Adoption Trends:** Examining the socio-economic factors driving cryptocurrency adoption in Nigeria.
- **Cybercrime Dynamics:** Investigating the mechanisms through which cryptocurrencies facilitate fraud, money laundering, and ransomware attacks.
- **Policy and Regulatory Effectiveness:** Evaluating the strengths and limitations of Nigeria's regulatory framework compared to global best practices.

2.2. Data Collection Techniques

2.2.1. Secondary Data Analysis

- **Literature Review:** The study synthesized existing research from peer-reviewed journals, industry reports, and government publications to identify trends, challenges, and policy gaps in cryptocurrency adoption and cybercrime in Nigeria.
- **Statistical Reports:** Data from reputable sources such as Chainalysis, Statista, and the EFCC were analyzed to quantify cryptocurrency adoption rates and cybercrime incidences.

2.2.2. Case Study Methodology

- **Seven case studies** were selected to illustrate the intersection of cryptocurrency and cybercrime in Nigeria. These cases represent diverse scenarios, including Ponzi schemes, ransomware attacks, and law enforcement operations.
- **Selection Criteria:** Cases were chosen based on relevance to the research objectives, availability of documented evidence, and their significance in shaping public discourse on cryptocurrency regulation.

2.2.3. Comparative Analysis

- **The study compared** Nigeria's regulatory and enforcement approaches to those of advanced economies such as the United States, South Korea, and the European Union.
- **Benchmarking Framework:** The analysis focused on four pillars: regulatory clarity, consumer protection, AML measures, and international collaboration.

3. Cryptocurrency landscape in Nigeria

3.1. Adoption and Growth of Cryptocurrency in Nigeria

Nigeria is a big player in the world cryptocurrency ecosystem. Driven by economic instability, a volatile naira, and limited access to formal banking services, Nigeria's young, digitally literate population was quick to embrace digital currencies. That means it's powered by leading platforms, such as Binance, Paxful, and Luno, with Nigeria (2023) being one of the top nations in the world in peer-to-peer (P2P) cryptocurrency transactions, according to Chainalysis' Global Crypto Adoption Index (2023).

High inflation, currency devaluation, and distrust in the banking system—its economic environment has resulted in many people in the country viewing the potential of cryptocurrencies like Bitcoin as a hedge against this instability in the economy (Akowe, 2021). According to the CBN Report (2023), the naira devalued over 40% in the parallel market between 2022 and 2023, driving its citizens to store value in decentralized digital currencies.

3.2. Statistics and Drivers

By 2022, over 32% of Nigeria's population owned some form of cryptocurrency, the highest percentage of any nation worldwide (Statista, 2023). With \$400 million of the \$20 billion of P2P traded in 2023, Nigeria's adoption rates were at par with the rest of Africa and the world.

3.2.1. The major drivers of this adoption will be

- **Economic Alert:** Nigeria is currently experiencing inflation rates above 20% (2023) and an ever-devaluating currency, prompting citizens to look for alternative stores of value. Bad management with the long view means that many currencies are a recipe for economic apocalypse, with people willing to sell their souls for a way to buy Bitcoin, even if they never bother using it as a means of exchange or selling goods and services for it, to take that first step, to scrounge for a foothold on that escape hatch — but it turns out that more often than not, they want that escape hatch for a currency that actually has value and won't evaporate like a house of cards blown over by a light breeze, gold bitcoin.
- **Financial Inclusion:** Cryptocurrencies enable access to financial services independent of traditional banking systems, especially in a country where over 40% of the population remains unbanked. For millions, mobile money has bridged the financial divide.
- **Young People Who Favor Technology:** Nigeria has a median age of 18.1 years, therefore, on average, people are young, technology-fluent, and quick to adapt to new technologies. For young people, it covers the full spectrum, from trading and remittances to tech entrepreneurs (Statista, 2023). And this generation not only drives up adoption, but also serves to promote innovation among blockchain-based startups.

3.3. Key Players and Platforms

Several leading platforms and services for cryptocurrency trading in Nigeria include:

- **Binance:** The exchange is one of the users' favorite options in Nigeria because of P2P trading you can have on the platform and low transaction fees.
- **Paxful:** Well-known for supporting multiple payment options, including gift cards and bank transfers.
- **Innovative Projects:** Startups like Bundle Africa and BuyCoins are pioneering adoption by making it easy to onboard users. Localized exchanges such as BuyCoins are also facilitating access and compliance (Adewunmi, 2022).

3.4. Economic Opportunities

Cryptocurrency has helped Nigerians in so many ways:

- **Remittances:** Cryptocurrency is disrupting Nigeria's \$20 billion remittance market by offering low-cost alternatives to conventional transfer channels. Other cross-border payment platforms, such as Stellar and Ripple, allow for near-instant payments, with a fee that can be less than 2%, as opposed to 7% - 10% for more traditional services (World Bank, 2022).
- **Entrepreneurship:** Innovative blockchain startups have emerged in Nigeria, including Bundle Africa, which simplifies the use of cryptocurrency in retail transactions, and Quidax, a homegrown cryptocurrency exchange

(Akpan, 2023). Non-fungible tokens (NFTs) are becoming popular in Nigeria's vibrant arts and music sectors, allowing creators to be paid for digital possessions worldwide.

3.5. Forms of Cybercrime Involving Cryptocurrency

In Nigeria, cryptocurrency plays a double-edged role, enabling both legitimate firms and assisting criminals. Prominent types of cybercrime related to cryptocurrency are:

- **Scams and Fraud: Ponzi Schemes:** The MMM Global scheme is one of Nigeria's biggest Ponzi scams, making use of Bitcoin to lure unwitting investors, only to fail and defraud millions before its eventual collapse in 2016 (Abioye, 2022).
- **Ransomware Attack:** We have seen a rise in ransomware attacks whereby the perpetrator is asking for payment in Bitcoin or Monero. For instance, in 2021, a Nigerian logistics company sustained an attack that forced its operations to a standstill for weeks, with the attackers demanding \$200,000 in cryptocurrency (Onyeabor, 2022).
- **Money Laundering:** Scammers use cryptocurrency tumblers such as Tornado Cash and privacy coins like Monero to wash money from phishing and internet schemes. Cryptocurrency laundering activities in 2023 were reported to be over \$5 million according to Nigerian authorities (EFCC, 2023).

3.6. Role of Blockchain Technology

Transparency is an integral part of blockchain technology, the underlying technology of cryptocurrencies — it is a public ledger accounting for all transactions publicly and verifiably that is decentralized. Such transparency helps legitimate users track transactions and trust in financial systems. However, the pseudonymous nature of the distributed ledger makes it hard to trace back the persons behind the transactions; hence, it leaves loopholes open that can be taken advantage of by cybercriminals.

Criminals employ sophisticated techniques to conceal their identities and activities on blockchain networks. For example

- **Mixers and Tumblers:** These services take inputs of cryptocurrency from many addresses and mix them up, making it extremely challenging to track the source or destination of funds. For instance, sites like Tornado Cash allow users to mask their transactions — a common practice by hackers seeking to wash stolen cryptocurrency.
- **Decentralized Exchanges:** Opposing centralized platforms, DEXs do not have rigorous Know Your Customer (KYC) protocols in place, which allows criminals to trade cryptocurrencies without any identity verification. DFT was launched to help wash funds through DeFi platforms, including DEXs, as over \$1 billion of stolen crypto was laundered in 2022 using DEXs (Chainalysis, 2023).
- **Privacy Coins:** These are coins like Monero, Zcash, and Dash that focus on ensuring anonymity by concealing details such as the sender, the recipient, and the amount involved in the transactions. Law enforcement is already struggling to detect illicit transactions conducted with privacy coins, but the problem is worsening as these coins are increasingly associated with ransomware payments and darknet marketplaces.
- **Protocols for Layer 2 and Cross-Chain Bridges:** These allow for a transfer of assets across chains, making it even harder to track funds as they flow from chain to chain.

3.7. Case Studies: Cryptocurrency and Cybercrime in Nigeria

Overall, these case studies serve as dyadic instances in which a criminal misuses cryptocurrency, and the specific struggles experienced in prosecuting such crime.

3.7.1. Case Study 1: MMM Global Ponzi scheme (2015-2016)

The MMM Global Ponzi scheme, arguably, led to the most popular scam in Nigeria. The con used Bitcoin primarily, allowing the business to sidestep normal banking regulations. At its peak, MMM Nigeria had over 2 million participants, and most lost their investments when the scheme collapsed in 2016. The ringleader, who asked to remain anonymous, was able to hide his identity with Bitcoin, making it impossible for officers to track the coin or prosecute him in a court of law. This case recalls a period when the inflexibility of crypto transactions was not fully blocked and that people didn't know enough about investment scams to protect themselves from losing money. (Okoye, A. & Ani, K. 2017).

3.7.2. Case Study 2: A Nigerian Logistics Company Was a Victim of a Ransomware Attack (2021)

One of Nigeria's leading logistics companies fell prey to a ransomware attack in 2021. The cybercriminals succeeded in encrypting the company's files and demanded over 5 BTC (approximately \$250,000 at that time) to decrypt it. Its operations were suspended for a fortnight, and it suffered major financial and reputational harm. In the end, they paid the ransom in Bitcoin, but they were unable to determine who received the ransom payment because the ransom was routed through mixers. This highlights the increasing risk posed by ransomware in Nigeria and the inability of current cybercrime legislation to capture crypto-based extortion. (Ojo, T. 2022).

3.7.3. Case Study 3: The Loom Money Nigeria Scam (2019)

The Loom Money scam was a type of Ponzi scheme that required members to pay an upfront fee in Bitcoin to get started. They were promised exponential returns for getting others signed up. It implicated thousands of Nigerians and allegedly cost ₦500 million.

The scheme unraveled in a matter of months, but by then, the habitual merchants accepting and converting Bitcoin transactions ensured that there wouldn't be any major arrests. This brings to light the need for public education placements and the fortification of anti-fraud implementations within cryptographic currency markets. (Adewale, B. 2021).

3.7.4. Case Study 4: EFCC's Operation Eagle Claw Project (2022)

The EFCC knocked on the doors of an operation that sought to involve a group of cybercriminals laundering money, as has been the case with Bitcoin in Operation Eagle Claw in 2022. The operation was a broader crackdown against cybercrime that targeted cryptocurrency in Nigeria. In this operation, they arrested more than 32 individuals and seized ₦1.5 billion worth of Bitcoin. By employing blockchain forensics instruments, EFCC traced the transactions' movement from pockets to pockets, making a technological milestone in the fight against cybercrime. This should serve as a crystal-clear example of why law enforcement needs to have technologies and expertise to properly analyze cryptocurrency activity. (EFCC. 2023).

3.7.5. Case Study 5: Social Media Crypto Scammers (2020-Present)

Scammers have utilized this mechanism to rise quickly within crypto communities on platforms like Instagram and Twitter. That fraud, known as the scam where a fraudster pretends to be a legit investment adviser or trader, pays victims to send them bitcoin for a phantom high return. In 2021, ₦1 billion was lost to crypto scams on social media. Cryptocurrency, being relatively anonymous, allowed the scammers to create a bubble around their platform, which then disappeared without a trace. When Scott returned home, he quickly learned that his account had been used to swindle the women out of money. (Okoro, J. 2022).

3.7.6. Case Study 6: The Nigerian Scam (2019-2021)

Going for broke scam over Bitcoin — new phishing email campaign hit Nigerian businesses achieved a 517% increase in 2019-2021 between scam email messages. The imposters posed as government agencies and big financial institutions, telling victims they were delinquent on taxes or needed to update their account information. Victims who clicked on the links were infected with malware, allowing sensitive data to be captured, and the data used to reroute fees into bitcoin wallets. During the campaign alone, ₦500 million out of the total fund that was siphoned away were laundered in fake bitcoin transactions.

Among those who lost were small business owners, and this exacerbated, among other things, economic vulnerabilities. International Bitcoin exchanges with weak "Know Your Customer" (KYC) policies further complicated tracking of how the stolen funds were essentially obfuscated. There was a lack of law enforcement resources to reduce the impact of the phishing campaign. This shows that as our businesses go online and become subjects of scrutiny, they must also be concerned with cybersecurity issues, and for businesses, enhanced KYC verification for crypto exchanges operating in Nigeria. (Adeoye, K. 2022).

3.7.7. Case Study 7: Funding of Terrorism with Cryptocurrencies in Northern Nigeria (2020-Present)

There have been some cases of the use of cryptocurrencies to support terrorist activities in Northern Nigeria, as reported by the Nigerian security agencies. The pseudonymity of Bitcoin was also exploited by extremist groups to receive global donations for procuring arms and hiring militants. According to intel documents, around 10% of overall funding for some groups over the last three years stemmed from Bitcoin contributions.

The funds were routed through decentralized wallets before being exchanged into local currencies on unregulated exchanges. Nor did Nigeria's security agencies have the capability to analyze blockchain data, preventing them from disabling the transactions.

International efforts to dismantle funding networks are sporadic. This is the level of information that calls for better surveillance capabilities and an international collaborative approach to safeguard cryptocurrency (and other new developments in our cashless age) from the scourge of terrorist financing. (Yusuf, A. 2023).

3.7.8. Case Example 8: The Crypto Investment Fraud Ring (2021)

In a well-coordinated effort in 2021, Nigerian security agencies took down an elaborate scheme that claimed to double victims' money from cryptocurrency deposits. The scammers set up fake sites and mobile apps, which were named after actual investment portals to lure potential victims. They duped about 5,000 victims of a sum of ₦800 million.

The majority of the victims were middle-class Nigerians hoping to find alternatives in which to invest in the face of a difficult economy. Since the fake sites used international servers, it was a challenge to take them down. Since Nigeria's courts are torturously able, victims were waiting for justice too. The case serves as a reminder that consumers need to be educated about recognizing fraudulent schemes and that there is a need for stricter regulations to hold investment platforms accountable. (Ogunleye, B. 2022).

4. Legal and Regulatory Framework

4.1. Nigeria's Regulatory Responses to Cryptocurrency

Nigeria has been oscillating between outright bans and cautious engagement in regulating cryptocurrency.

4.1.1. A Ban on Cryptocurrency Transactions by the Central Bank of Nigeria (2021)

In February 2021, the CBN ordered all financial institutions to stop facilitating cryptocurrency transactions, claiming they expose people to fraud, money laundering, and terrorism financing. As a result, the ban inadvertently pushed Nigerians onto P2P trading platforms, leading to more adoption, not less (Ajao, 2022).

Banks had been made to close accounts connected with the trading of cryptocurrencies. With the banking system paralyzed, the exchanges had no recourse but to go for peer-to-peer (P2P) trading. The ban drove crypto transactions underground and increased reliance on P2P platforms. In 2022, Nigeria became Africa's largest peer-to-peer (P2P) cryptocurrency market, with total transactions exceeding \$400 million (Chainalysis, 2023). Critics argued that the ban suppressed innovation and pushed crypto users to enter unregulated territory where they risked greater fraud.

4.1.2. eNaira X: The Bank-to-Bank Transfer Solution

The eNaira was launched in October 2021 as Africa's first central bank digital currency (CBDC) and a means of driving financial inclusion and digital payments. Despite accounting for less than 1% adoption among the population by 2023, CBN nonetheless faced competition from decentralized cryptos, as well as others like it (Kehinde & Ahmed, 2023).

The eNaira will guarantee stability since it is backed and pegged to the naira by the CBN. It facilitates not only digital payments and cross-border transactions but also payments to governments. In less than 1% (Statista, 2023) of cases, Nigerians have adopted the eNaira, so adoption has been slow by 2023. A broad distrust of government-backed digital bank currencies, as well as the ability to withdraw it, and a preference for decentralized cryptocurrency such as Bitcoin, has held back the uptake.

4.1.3. SEC Guidelines (2022)

In light of escalating interest in cryptocurrency, the SEC in 2022 developed guidelines recognizing these assets as digital entities that can only trade under specific regulations. It aims to ensure a balanced approach between the promotion of innovation and the mitigation of risk (Okoro, 2023).

The idea here is that cryptocurrency exchanges have to register with the SEC, comply with KYC and AML rules, etc. Tokens and other offerings of digital assets are typically not securities offerings, thus falling under the SEC boilerplate.

The guidelines also sought to discourage investor protection while also legitimizing the cryptocurrency market. Its implementation has been challenging owing to a lack of cooperation between the SEC and the CBN (SEC Nigeria, 2022).

4.1.4. Tackling Cryptos Associated Crimes

Nigerian law enforcement, particularly the Economic and Financial Crimes Commission (EFCC), have intensified measures to curb crypto-related crimes. The EFCC collaborates with international bodies including Interpol to monitor cryptocurrency payments involving fraud or laundering. State authorities can employ blockchain analysis tools to follow SARS funds through decentralized networks, as is the case with the EFCC.

In 2022, the EFCC's Operation Eagle Claw involved the arrest of 32 people on the basis of allegations of cryptocurrency scams and the recovery of ₦1.5 billion of stolen funds (EFCC, 2023). The EFCC's battle against sophisticated crypto crimes is exacerbated by a lack of technical frameworks and limited resources (EFCC, 2023).

4.2. Comparison with Global Trends in Cryptocurrency Regulation

Around the world, countries have experienced various levels of a global cryptocurrency adoption wave, either on the rise or decline. While the Nigerian regulatory environment is repugnant to general practices on more critical dimensions such as transparency, ease of innovation, consumer protection, and enforcement capacity, it is a fair model of her distinct socioeconomic identity. This section critically draws a comparative analysis to examine Nigeria's cryptocurrency regulation with international good practices.

5. Regulated Landscape and Strategy

5.1. Nigeria's Response/Approach

Nigeria has a cautious, and at times restricted, regulatory approach, primarily led by the Central Bank of Nigeria and the Securities and Exchange Commission (CBN, 2017). The 2021 CBN ban on cryptocurrency transactions through the banking system indeed enforced the collapse of crypto activities into unregulated peer-to-peer (P2P) markets (CBN, 2021). However, its alternative—eNaira, a Central Bank Digital Currency expected to arise as a regulated cryptocurrency—has, up until now, been poorly adopted (Statista, 2023).

Conversely, leading economies are adopting a more progressive, innovation-first jurisdiction toward regulatory frameworks to address risk. For instance, the US supports innovation through regulation that provides “clear rules of the road” while enforcing regulatory institutions like the SEC and FinCEN to enforce strict AML (Anti-Money Laundering) /KYC (Know-Your-Customer) policies.

The European Union's MiCA regulation harmonizes crypto laws in the markets for crypto assets, creating a forced monetary opportunity and a cohesive market while enhancing investor trust (European Commission, 2023). Japan employs the approach of the Payment Services Act and specifies cryptocurrencies within its financial regulatory system while mandating transparent operation by licensed exchanges.

5.1.1. Here are some of the key differences

A Unified Framework: Nigeria does not have a consolidated regulatory framework, contrary to the EU's MiCA, as you find inconsistent pronouncements from the CBN and SEC, creating confusion for consumers.

Pro-blockchain government: The CBN ban and others have stifled Nigeria's blockchain ecosystem, whereas countries like Japan and the US actively craft policies to embrace blockchain innovation.

5.2. Consumer Protection

5.2.1. Nigeria's Response

Nigeria has taken few steps to protect people who use cryptocurrency from fraud and market risk:

- In 2022, the SEC proposed guidelines where basic KYC and AML mandates were mandatory for crypto exchanges, although these are not uniformly enforced (SEC Nigeria, 2022).

- EFCC and CBN launched public awareness campaigns to educate citizens about cryptocurrency scams but have failed to reach rural and unbanked populations. Further information is available in our FAQ.

Netting it all, consumer protection stands as one of the cornerstones of cryptocurrency regulations across developed markets, especially from a global perspective:

- US: Exchanges ensure users know the risks behind investing in cryptos.
- EU: Under MiCA, EU-based stablecoins and crypto platforms must maintain sufficient reserves and disclose risks to users.
- Singapore: Adopts strong fraud prevention and consumer compensation to make the crypto market trustworthy.

5.2.2. Here are some major differences

- Transparency: While the global market is clear on how to leverage risk disclosures, the effort through regulation in Nigeria lacks it.
- Access to Remedies: Consumers, such as those in Singapore, also have access to compensation mechanisms, which are completely non-existent in Nigeria's regulatory framework.

6. AML: Cybercrime Prevention and AML

6.1. Nigeria's Response

Like Anguilla, the EFCC of Nigeria has adopted tools that mitigate cryptocurrency fraud.

- Operations such as Eagle Claw (2022) were evidence of Nigeria's ability to recover stolen crypto and shut down fraud networks (EFCC, 2023). But technical and resource constraints limit the scope and efficacy of enforcement efforts.
- United States: Cryptocurrency exchanges are required to track and report suspicious transactions to the Financial Crimes Enforcement Network (FinCEN).
- South Korea: The risk for cryptocurrency accounts through the real-name system has been shown to significantly reduce anonymous transactions and prevent illegal activity (Kim, 2022).
- Estonia: Requires advance audits and licensing from crypto companies but without breaking AML laws.

6.1.1. Key Differences

- **Resource Allocation:** Nigeria has limited resources and capacity, while advanced economies invest heavily in law enforcement training and blockchain forensic tools.
- What defines regulatory traction (e.g., how strict are penalties for non-compliance in South Korea and Estonia, while Nigeria has no uniform regulatory enforcement)?

7. International Collaboration

7.1. Nigeria's Solution

Nigeria has begun collaborating with international bodies such as Interpol and the Financial Action Task Force (FATF) concerning cross-border crypto offenses. By 2022, it had teamed up with Interpol to dismantle a transnational cryptocurrency fraud syndicate and recover ₦1.5 billion in stolen money.

- Developed economies' cryptocurrency regulation is off the back of international cooperation:
- US: Works with FATF and G7 on international crypto regulation standards.
- European Union: Collaborates with FATF on AML measures across EU states.
- Japan: Fosters working together with Asian partners toward the common struggle against crypto-related cybercrime.

7.1.1. Key Differences

Types of Collaboration: Advanced economies have broad cross-border collaboration, whereas those of Nigeria are few.

FATF respecting features in 3rd Countries: 3rd Countries have implemented FATF policies in full in countries like Japan & EU.

7.2. The Ethical and Social Implications of Cryptocurrency and Cybercrime in Nigeria

7.2.1. *Crypto and cybercrime in Nigeria*

A nexus of philosophical and socio-cultural ramifications. Digital currencies, while providing significant financial inclusion and economic empowerment, when misapplied, contribute to income inequality and erode confidence in technology, leading to friction with social mores. We elaborate on those dimensions in this section.

7.3. Potential Ethical Conflicts among Stakeholders

7.3.1. *Government and Regulators*

The government in Nigeria not only has the responsibility of incentivizing innovation but also the problem of regulating it in the name of security. Cryptoeconomies can drive growth and support financial inclusion, but the ungoverned use of cryptocurrencies also facilitates money laundering, terrorist financing, and tax evasion.

7.3.2. *Overregulation vs. Innovation Suppression*

Overregulation may suppress innovation and push young native entrepreneurs to leave as they rely more on blockchain-based technology. Conversely, lax regulations enable abuse, compromising national security (Ajao, 2022).

7.3.3. *Skepticism of the Government*

Critics contend that several of their activities, including the issuance of the eNaira, lack transparency and breed suspicion in the minds of citizens (Statista, 2023).

7.4. Technology Providers and Platforms

Cryptocurrency-centric platforms in Nigeria are onboarding more users than focusing on compliance. Ethical concerns include:

- **Poor KYC Procedures:** Some of these platforms do not have stringent Know Your Customer (KYC) procedures, which enables anonymity for illegal activities (Ojo, 2023).
- **Due diligence on ensuring that your existing data and your profile have not been compromised.**

7.5. Women and Individual Users

The decentralized nature of cryptocurrencies is a double-edged sword as it empowers individuals but also raises ethical dilemmas:

- **Legit Users:** Typical Nigerians use cryptos to escape charging remittance fees or economic instability. Instead, they risk being sullied by association with platforms used for nefarious purposes.
- **Criminal Actors:** Others leverage it for scamming or money laundering, leading to the argument of responsible actors in a permission less network.

7.6. Social Implications of Cryptocurrency-Driven Cybercrime

- **Erosion of Trust:** The widespread nature of the cryptocurrency scam reduces confidence in both digital currencies and banking entities. Individuals who have experienced Ponzi schemes such as MMM Global, for instance, tend to avoid cryptocurrency completely, associating it with fraud (Okoye & Ani, 2021).
- **Creating Wider Socioeconomic Disparities:** While cryptocurrency provides new opportunities for people who are tech-savvy and educated, it marginalizes segments of the population who do not have digital fluency or access to the internet. As such, a significant portion of rural communities lacks the capability to participate in the digital economy (World Bank, 2022).
- **Threat to Traditional Institutions:** Decentralized Nature of Cryptocurrencies: Cryptocurrencies are decentralized financial systems that reduce the power of established institutions like the CBN. This change erodes trust in conventional financial systems, impacting policy enforcement (Akpan, 2023).

- **Psychological Toll:** Victims of cybercrime experience severe mental stress, such as depression and anxiety. Evidence suggests that financial fraud in households with low income has been associated with long-term mental health disorders (EFCC, 2023).

7.7. Further Directions and Recommendations

As a nation, to navigate the double-edged sword that cryptocurrency presents, Nigeria must adopt an approach that melds innovation with risk management. For these stakeholders, we have specific recommendations:

7.7.1. Government and Regulators

- **Harmonization and Empowering Adequate Policies:** Create a monolithic policy between the CBN, SEC, and law enforcement. Instead, adopt a tiered system of regulation: Low-Risk Users: “light-touch” KYC measures for small-value transactions, High-Risk Users: “enhanced” due diligence for larger traders and exchanges.
- **Promote International Collaboration:** Collaborate with international organizations, including the Financial Action Task Force (FATF), to align legislation with global best practices and employ blockchain analysis software from companies like Chainalysis or Elliptic to track the transfer of illicit funds (FATF, 2023).
- **Encouraging Digital Literacy:** National campaigns on the risks and opportunities of cryptocurrency. Building local capacity with blockchain technology in the universities (Adewunmi, 2022).

7.8. Technology Providers

- **Active Enforcement of KYC and AML processes:** Set stringent KYC and AML processes on all exchanges and impose high fines or shutdown any platform that fails to comply.
- **Safeguard User Security:** Introduce spam alerting and security policies that protect users against spam, phishing, and account-stealing attacks; provide user insurance schemes in case of attacks (Ojo, 2023).
- **Collaborate with Regulators.** Actively work with the Nigerian authorities to develop frameworks that foster innovation without compromising security.

7.9. Individuals and Communities

- **Promotion of Responsible Utilization:** Promote actual uses of cryptocurrency, such as remittance or savings, rather than speculative trading.
- **Support Victims of Cybercrime** by Establishing support groups or counselling services for individuals affected by cryptocurrency-related fraud
- **Investing in Community Networks:** Utilize bottom-up organizations to connect the digital divide, embedding rural populations with the benefits and hazards of cryptocurrency (World Bank, 2022).

7.10. Long-Term Strategies

- **Invest in Blockchain Research** by Funding research on the ethical and technical implications of blockchain technology to create Nigeria-specific solutions.
- **Build Institutional Capacity** by Training law enforcement and financial regulators on advanced blockchain forensics to combat cybercrime effectively.
- **Embrace Public-Private Partnerships** by Partnering with private firms to deploy blockchain solutions for public sector challenges, such as land registry systems or anti-corruption initiatives.

8. Conclusion

Cryptocurrency in Nigeria stands at the intersection of economic empowerment and technological disruption. As this digital asset class gains traction, it offers an unprecedented opportunity to address key socio-economic challenges, including financial inclusion, economic diversification, and global competitiveness. However, the same features that make cryptocurrencies appealing—decentralization, anonymity, and efficiency—also create fertile ground for cybercrime. The rise in scams, fraud, and ransomware attacks demonstrates the darker side of this innovation, posing significant challenges for regulators, law enforcement, and technology providers.

This paper has explored the duality of cryptocurrency in Nigeria through several lenses:

- Its role as a tool for economic inclusion and entrepreneurship, offering solutions to high remittance fees and limited access to traditional banking.

- Its exploitation by cybercriminals who leverage its anonymity and decentralized nature to perpetrate fraud and launder illicit funds.
- The regulatory challenges of fostering innovation while mitigating risks, especially in a rapidly evolving digital economy.
- The ethical dilemmas and societal impacts of cryptocurrency adoption, particularly concerning inequality and trust in financial systems.

For Nigeria, the path forward requires a careful balancing act. Policymakers must craft a unified regulatory framework that aligns with global standards while addressing local realities. Technology providers must prioritize user security and compliance to prevent misuse of their platforms. Education and awareness campaigns are critical to equipping Nigerians with the knowledge to navigate this new frontier responsibly.

Ultimately, the potential of cryptocurrency to transform Nigeria's economy is vast. By fostering collaboration between stakeholders—government, private sector, and civil society—Nigeria can harness the benefits of this technology while minimizing its risks. The goal is to make cryptocurrency a tool for inclusive growth, rather than a catalyst for inequality and crime.

References

- [1] Okoye, A. & Ani, K. (2017). Financial Fraud in Nigeria: Lessons from MMM Global Ponzi Scheme. *Journal of Economic Studies*, 15(3), 45-62.
- [2] Ojo, T. (2022). Cryptocurrency and Ransomware in Africa: Emerging Threats. *African Cybersecurity Journal*, 8(1), 12-29.
- [3] Adewale, B. (2021). Digital Pyramids: Understanding Crypto-Based Ponzi Schemes in Nigeria. *Nigerian Financial Review*, 19(2), 65-80.
- [4] EFCC. (2023). Blockchain Forensics and Cybercrime Enforcement: A Nigerian Perspective. Economic and Financial Crimes Commission.
- [5] Okoro, J. (2022). Social Media and Cryptocurrency Scams: Trends and Countermeasures in Nigeria. *Journal of Digital Crime Studies*, 10(3), 23-41.
- [6] Adeoye, K. (2022). Phishing and Cryptocurrencies: Emerging Threats in Nigeria. *Journal of Cybersecurity Studies*, 14(2), 67-82.
- [7] Yusuf, A. (2023). Cryptocurrency and Terrorism Financing in Nigeria: Challenges and Responses. *African Security Review*, 15(1), 43-60.
- [8] Ogunleye, B. (2022). Crypto Investment Fraud in Nigeria: An Emerging Crisis. *Nigerian Financial Crimes Journal*, 18(4), 85-102.
- [9] Central Bank of Nigeria. (2021). Press Release on Cryptocurrency Transactions in Nigeria. Retrieved from <https://www.cbn.gov.ng>.
- [10] Chainalysis. (2023). Crypto Adoption Index 2023: Regional Insights for Africa.
- [11] Statista. (2023). Adoption Rates of Digital Currencies in Sub-Saharan Africa.
- [12] SEC Nigeria. (2022). Regulatory Guidelines for Cryptocurrencies and Digital Assets in Nigeria. Retrieved from <https://www.sec.gov.ng>
- [13] CBN. (2021). The eNaira Project: A Digital Future for Nigeria. Retrieved from <https://www.cbn.gov.ng>.
- [14] EFCC. (2023). Annual Report on Cryptocurrency-Related Crimes in Nigeria.
- [15] Chainalysis. (2023). Crypto Adoption Index 2023: Regional Insights for Africa. <https://www.chainalysis.com>.
- [16] European Commission. (2023). MiCA: Regulation of Crypto-Assets in the EU.
- [17] EFCC. (2023). Blockchain Forensics and Cybercrime Enforcement in Nigeria.
- [18] Kim, J. (2022). Cryptocurrency Regulation in South Korea: Lessons for Developing Economies.
- [19] FATF. (2023). Best Practices for Regulating Cryptocurrencies Globally.

- [20] Akowe, T. (2021). "The Role of Cryptocurrencies in Developing Economies." *Journal of Financial Innovation*, 18(4).
- [21] Okoye, U., & Ani, A. (2020). "Cybercrime and Digital Currency in Nigeria." *African Journal of Security Studies*, 12(2).
- [22] EFCC. (2023). 2023 Report on Financial Cybercrime in Nigeria. Economic and Financial Crimes Commission.
- [23] Ajao, K. (2022). "Navigating Cryptocurrency Regulation in Nigeria." *Nigerian Journal of Policy Studies*, 10(3).
- [24] Statista. (2023). Cryptocurrency Ownership Statistics by Country. Retrieved from <https://www.statista.com>.
- [25] World Bank. (2022). The Role of Digital Finance in Sub-Saharan Africa. Retrieved from <https://www.worldbank.org>.
- [26] Ojo, A. (2023). "DeFi Exploits: Challenges in Regulation." *Journal of Blockchain Studies*, 15(1).