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Cryptocurrency And Financial Inclusion: Bridging The Conceptual Gap In Nigeria

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Abstract: *The main purpose of this research is to determine the functions of cryptocurrencies as a transactions medium in developing country such as Nigeria. Also, the research aimed at examining the extent to which the adoption of cryptocurrency has disrupted traditional financial systems, as well as investigating the potential benefits and challenges of using cryptocurrency for emerging market such as Nigeria. Data was collected through documentary literature. Thus, the methodology used in study is purely content analysis, through secondary data by reviewing relevant journal articles and other contributions posted on the internet. The study concludes that, cryptocurrency offers benefits such as reduced transaction costs, faster settlement times, and increased transparency in transactions. However, there are also challenges such as regulatory and legal hurdles, security concerns, and limited understanding of cryptocurrency. The study also will highlight the factors that influence the adoption of cryptocurrency in international trade, including regulatory and legal frameworks, security concerns, awareness and understanding of cryptocurrency, transaction costs, and integration with existing systems. The study recommends that government need to address the cryptocurrency challenges in terms of regulation, security, and market stability, thereby harness the potential opportunities of cryptocurrency and financial inclusion.*

Keywords: *Cryptocurrency, Financial Inclusion, Nigeria.*

1.0 INTRODUCTION

In recent years, the intersection of cryptocurrency and financial inclusion has garnered significant attention globally (Pantin, 2023; Jegerson&Mertzanis 2024), with Nigeria emerging as a notable focal point (Affandi&Rifkila 2023; Oladipupo et al 2023). As the largest economy in Africa, Nigeria faces both immense opportunities and substantial challenges in harnessing the potential of cryptocurrencies to foster inclusive economic growth (Lottu et al 2023). Possibly, by means of integrating the digital technologies into all aspects of banking operations, from customer service to back-office functions such as digital payments, block chain, and cryptocurrencies (Megargel et al 2025;Ivasenko et al 2025; Paramesha et al 2024).

Cryptocurrency refers to digital or virtual currencies that use cryptography for security and operate independently of a central bank(Weinberg et al 2025; Angwaomaodoko 2024). Bitcoin, Ethereum, and a multitude of other digital currencies have rapidly evolved from niche technological curiosities to significant financial instruments. Their decentralized nature, potential for high returns, and ability to facilitate cross-border transactions have spurred widespread interest and adoption. The cryptocurrencies introduce entirely new forms of digital assets and currencies that transcend borders and traditional monetary systems. As these technologies evolve, they can revolutionize various banking functions, from cross-border payments to asset management and beyond (Gupta & Gupta, 2018; Kumari& Devi, 2022).

Financial inclusion involves ensuring that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance – delivered in a responsible and sustainable way (Chitimira&Warikandwa 2023; Anakpo et al 2023). In Nigeria, a country with a large unbanked population and a significant informal economy, financial inclusion is crucial for socio-economic development (Ediagbonya&Tioluwani 2023).

Economic growth is the increase in the production of goods and services in an economy over a period (Awan &Yaqoob). For Nigeria, leveraging new financial technologies like cryptocurrencies could play a vital role in catalyzing this growth by enhancing financial inclusion, increasing efficiency, and providing new opportunities for investment and innovation (Lottu et al 2023).

Nigerian's approach to Cryptocurrency highlights the sector's potential to drive financial inclusion and economic growth. With a significant portion of the population previously excluded from the formal banking system, cryptocurrency in Nigeria has been instrumental in bridging this gap, offering accessible means of improvement the economic growth. With this research, the Nigerian government and regulatory authorities can recognize the value of cryptocurrency as a catalyst for change, implementing policies that encourage innovation and investment in the sector.

1.1 The Overview of Nigerian Environment

Nigeria presents a unique landscape for the interplay of cryptocurrency and financial inclusion due to its demographic and economic characteristics(Nnebuihe, &Ogu 2025; Chijuka, & Hussein 2025). With a population exceeding 200 million people, it is the most populous country in Africa, and it has a youthful demographic profile, with over 60% of its population under the age of 25. This young, tech-savvy population is increasingly turning to digital solutions, including cryptocurrencies, as traditional banking systems often fail to meet their needs.
Despite being Africa's largest economy, Nigeria faces significant barriers to financial inclusion. According to the World Bank, nearly 40% of Nigerians remain unbanked, primarily due to issues such as high fees, lack of banking infrastructure in rural areas, and bureaucratic hurdles. Cryptocurrencies, with their low transaction costs and ease of access via mobile devices, present a viable alternative to traditional banking, offering the potential to bridge this gap.
This study focuses on the cryptocurrency, financial inclusion and economic growth: bridging the gap in Nigeria.

1.2 Problem Statement

Nigeria has a significant informal economy that is largely unbanked. The impact of cryptocurrency on this sector remains unclear (Olomukoro 2023). Studies could focus on how cryptocurrencies can integrate the informal economy into the formal financial system, potentially increasing financial inclusion and economic stability (Mhlanga 2023).
While cryptocurrency has been hailed as a revolutionary tool for financial inclusion, its impact on economic growth, particularly in developing countries like Nigeria, remains under-researched. There is a need to understand how cryptocurrency can bridge the gap in financial inclusion and contribute to economic growth in Nigeria.

There is a shortage of empirical data on how cryptocurrency adoption affects financial inclusion and economic growth in Nigeria specifically. Most studies tend to be theoretical or based on case studies from other countries.
Research could focus on quantitative analyses using primary data from Nigerian users of cryptocurrency, comparing regions with different levels of cryptocurrency adoption to assess economic outcomes.

By addressing these gaps, future research can provide a more nuanced and comprehensive understanding of the interplay between cryptocurrency and financial inclusion in Nigeria, ultimately informing policy and practice to maximize the benefits of digital currencies in the country.

1.3 Objectives of the Study

The main objective of this study is to investigate cryptocurrency and financial inclusion: bridging the conceptual gap in Nigeria. However, the specific objectives are:

1) To determine the functions of cryptocurrencies as a transactions medium in Nigeria.
2) To investigate the extent to which the adoption of cryptocurrency has disrupted traditional financial systems in Nigeria.
3) To investigates the potential benefits and challenges of using cryptocurrency for emerging market such as Nigeria.

2.0 LITERATURE REVIEW

2.1 Concept and Nature of Cryptocurrency

Cryptocurrency is a form of digital or virtual currency that uses cryptography for security. It operates independently of a central authority, such as a government or financial institution. Unlike traditional currencies issued by governments and central banks, cryptocurrencies are decentralized and operate on technology called blockchain. The concept and nature of cryptocurrency can be understood through its key characteristics, technology, and implications.

2.2 Key Characteristics of Cryptocurrency

1. Decentralization: Unlike traditional currencies, cryptocurrencies are typically decentralized. They are managed and maintained through a distributed network of computers, known as nodes, that follow a consensus protocol.
2. Cryptography: Cryptocurrencies use cryptographic techniques to secure transactions, control the creation of new units, and verify the transfer of assets. This ensures the integrity and security of the currency.
3. Blockchain Technology: Most cryptocurrencies operate on a technology called blockchain, which is a distributed ledger that records all transactions across a network of computers. The blockchain is immutable, meaning once data is recorded, it cannot be altered.
4. Anonymity and Transparency: Cryptocurrency transactions can offer varying levels of anonymity. While the transaction details are recorded on the blockchain and are publicly accessible, the identities of the participants can remain pseudonymous.
5. Limited Supply: Many cryptocurrencies, such as Bitcoin, have a limited supply, which is intended to create scarcity and potentially enhance value over time. For example, the total supply of Bitcoin is capped at 21 million coins.

2.3 Technology Behind Cryptocurrency

1. Blockchain: The backbone of most cryptocurrencies is the blockchain, a decentralized ledger that records transactions across many computers. This ensures that the data is transparent and secure from tampering.
2. Consensus Mechanisms: To validate and record transactions on the blockchain, cryptocurrencies use various consensus mechanisms:

• Proof of Work (PoW): Used by Bitcoin, this involves solving complex mathematical problems to validate transactions and add them to the blockchain.
• Proof of Stake (PoS): Used by cryptocurrencies like Ethereum 2.0, PoS allows users to validate transactions based on the number of coins they hold and are willing to "stake" as collateral.
3. Smart Contracts: These are self-executing contracts with the terms directly written into code. They automatically enforce and execute the terms of the agreement, providing a way to create programmable, trustless transactions.

2.4 Types of Cryptocurrencies

1. Bitcoin (BTC): The first and most well-known cryptocurrency, often referred to as digital gold. It was created by an anonymous person or group known as Satoshi Nakamoto in 2009.
2. Altcoins: Any cryptocurrency other than Bitcoin. This category includes:
• Ethereum (ETH): Known for its smart contract functionality.
• Ripple (XRP): Focuses on facilitating real-time, cross-border payments.
• Litecoin (LTC): Designed to produce blocks more frequently and has a faster transaction confirmation time than Bitcoin.

2.5 Implications and Uses of Cryptocurrency

1. Financial Inclusion: Cryptocurrencies can provide financial services to unbanked or underbanked populations, giving them access to digital financial systems without the need for traditional banking infrastructure.
2. Reduced Transaction Costs: Cryptocurrencies can lower transaction fees compared to traditional banking and remittance services, especially for cross-border payments.
3. Investment and Speculation: Many people buy cryptocurrencies as an investment, hoping that their value will increase over time. This has led to significant volatility in cryptocurrency markets.
4. Decentralized Finance (DeFi): Cryptocurrencies are the foundation of the DeFi movement, which aims to recreate traditional financial systems (like loans, insurance, and exchanges) in a decentralized architecture, using smart contracts and blockchain technology.
5. Security and Privacy: Cryptocurrencies can provide enhanced security and privacy for transactions compared to traditional financial systems, which can be more vulnerable to hacking and surveillance.

2.6 Challenges and Criticisms of Cryptocurrency

1. Regulatory Uncertainty: The legal status of cryptocurrencies varies widely across countries, and regulatory frameworks are still evolving, leading to uncertainty.
2. Volatility: Cryptocurrencies are known for their price volatility, which can make them risky investments.

Cryptocurrencies represent a significant innovation in the realm of finance and technology. Their decentralized nature challenges traditional financial systems and offers a new paradigm for digital transactions. However, they also pose challenges in terms of regulation, security, and market stability. As the ecosystem matures, it will be crucial to balance innovation with measures that protect users and ensure the stability of financial systems.

2.7 Concept of Financial Inclusion

Financial inclusion is the process of ensuring access to financial services and products in a timely, adequate, and affordable manner to all individuals and businesses, particularly those traditionally underserved, such as low-income households and small enterprises. The concept encompasses a wide range of financial activities and goals aimed at improving the availability and accessibility of banking, insurance, credit, and other financial services.

2.8 Key Components of Financial Inclusion

1. Accessibility:
• Geographical: Extending banking services to remote and rural areas.
• Economic: Making financial products affordable for low-income individuals.
• Social: Providing services to marginalized groups, including women, minorities, and the elderly.
2. Availability:
• Diverse Products: Offering a range of financial products such as savings accounts, credit facilities, insurance, and pensions.
• Infrastructure: Developing physical and digital infrastructure like bank branches, ATMs, mobile banking, and internet banking to facilitate access.
3. Usability:
• Literacy and Education: Enhancing financial literacy and education to help people understand and use financial services effectively.
• Consumer Protection: Ensuring that financial services are fair, transparent, and safe.

2.9 Importance of Financial Inclusion

1. Economic Growth:
• By bringing more people into the formal financial system, financial inclusion can stimulate economic activity, increase savings and investments, and create jobs.
2. Poverty Reduction:
• Access to financial services enables poor and marginalized communities to save money securely, borrow at reasonable rates, and manage their finances better, leading to poverty alleviation.
3. Social Inclusion:

Financial inclusion promotes social cohesion by providing equal opportunities for all individuals to participate in the economy.

4. Empowerment:

It empowers individuals, particularly women, by giving them control over their financial resources and the ability to make informed economic decisions.

2.10 Challenges to Financial Inclusion

1. Lack of Infrastructure:

In many rural and remote areas, the absence of banking infrastructure limits access to financial services.

2. Low Financial Literacy:

A significant portion of the population may lack understanding of financial products and services.

3. Regulatory Barriers:

Strict regulations and requirements can hinder the expansion of financial services to underserved populations.

4. High Costs:

The cost of financial products and services can be prohibitive for low-income individuals.

2.11 Strategies to Promote Financial Inclusion

1. Digital Financial Services:

Leveraging technology such as mobile banking, online banking, and digital payment systems to reach underserved populations.

2. Microfinance and Microcredit:

Providing small loans and financial services to low-income individuals who do not have access to traditional banking services.

3. Public-Private Partnerships:

Collaborating between governments, financial institutions, and non-profits to create inclusive financial systems.

4. Policy and Regulation:

Implementing policies that promote financial inclusion, such as simplifying KYC (Know Your Customer) norms and supporting the establishment of financial cooperatives.

5. Financial Education Programs:

Conducting awareness campaigns and educational programs to improve financial literacy among the underserved.

Therefore, financial inclusion is a multifaceted concept that aims to provide equitable access to financial services for all individuals and businesses, fostering economic growth, reducing poverty, and promoting social inclusion. Overcoming the challenges of financial inclusion requires coordinated efforts from governments, financial institutions, and other stakeholders to create an inclusive financial ecosystem that benefits everyone.

3.0 METHODOLOGY

The study aimed at investigating the cryptocurrency and financial inclusion in order to bridge the conceptual gap that exist in Nigerian context, Therefore, to address these concept documentary literature was used as a major source of data collection. Thus, the methodology used in study is purely content analysis, through secondary data by reviewing relevant journal articles and other contributions posted on the internet. Content analysis is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. Researchers quantify and analyze the presence, meanings and relationships of such words and concepts, then make inferences about the messages within the texts, the writer(s).

Therefore, in conducting this previous studies in relation to cryptocurrency and financial inclusion: bridging the conceptual gap in Nigeria in Nigeria was reviewed, with emphasis in conceptual analysis or relational analysis, as such this paper is considered as conceptual review. It was deduced that cryptocurrency and financial inclusion provide an avenue for bringing more people into the formal financial system, which can stimulate economic activity, increase savings and investments, and create jobs. Consequently, an insight into cryptocurrency and financial inclusion facilitate comprehensive understanding how financial services are provided to unbanked or under banked populations, giving them access to digital financial systems without the need for traditional banking infrastructure.

4.0 CONCLUSION

Based on the above literature reviewed, the study deduced that;

1. The main function of Cryptocurrency is provision of better financial environment that will assist in reducing transaction costs, faster settlement and conduct of transactions, and increasing transparency in transactions.
2. The Cryptocurrency disrupted traditional currencies, by means of typically decentralization. This is because it is managed and maintained through a distributed network of computers, known as nodes that follow a consensus protocol.
3. The key factors that influence the adoption of cryptocurrency in international trade, includes regulatory and legal frameworks, security concerns, awareness and understanding of cryptocurrency, transaction costs, and integration with existing systems.
4. The potential opportunities and challenges of cryptocurrency in global trade and commerce includes cross border transactions with cheaper transaction cost as well as large investment

opportunity, while its major challenge is regulatory as it has no clear rules guiding its operation.

5.0 RECOMMENDATIONS

The study aimed at investigating the cryptocurrency and financial inclusion, Thus, to bridge the gap that exist, thereby harness the potential opportunities cryptocurrency and financial inclusion, it is recommended that, government need to address the cryptocurrency challenges in terms of regulation, security, and market stability. As the ecosystem matures, it will be crucial to balance innovation with measures that protect users and ensure the stability of financial systems.

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