Crypto Currency on the Development of Nigeria Banking System with Particular Reference to the First Bank Nigeria Plc

Ubesie Madubuko Cyril, Etuka Patience Nwadiuto and Anya Ngozi Francisca
Department of Accountancy, Faculty of Management Sciences,
Enugu State University of Science and Technology
ubesiemadubuko@yahoo.com

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Abstract

The study examined the effect of crypto currency on the development of Nigerian banking system with particular reference to the first bank Nigeria Plc. The study specifically examined the effect of Bitcoin (BTC) payment system and Litecoin (LTC) payment system, Ethereum (ETH) payment system and Bitcoin Cash payment system on the profit for the year of first bank Nigeria Plc. Data for the study was sourced through annual reports and accounts of first bank Plc for a period of 10 years, data collected were analysed using multiple regression analysis. Result of the analysis shows that Bitcoin (BTC) payment system has a positive and significant effect on the profit for the year of first bank Nigeria Plc. It was also observed that Litecoin (LTC) payment system has a negative significant effect on the profit for the year of first bank Nigeria Plc. The study further shows that that there is a negative effect of Ethereum on Profit for the year of first bank Plc. The study further indicates that Bitcoin Cash has a positive and significant effect on Profit for the year of firs bank Plc. Several financial regulatory authorities and institutions issued casual warnings to the general public, advising of the risks of involvement in digital currencies; however, digital currencies (especially cryptocurrencies) are thriving since the number of businesses and persons who accept them as payment are increasing by the day. A significant number of people are now fully convinced that the digital currency-Bitcoin is legitimate, safe and has value. "Bitcoin is going to be transformative" but unfortunately, since it is virtually untraceable it has been used for a host of nefarious purposes. Although, digital currencies may be very attractive to cybercriminals and fraudsters and present a host of new challenges to law enforcement in Nigeria, its adoption as a tool for national development in the digital age should be widely encouraged.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The global financial system is no doubt embracing the current transition from physical currency to almost virtual currencies through the medium of technology. This wave has ushered in the birth of crypto currencies. There have been many attempts at creating a digital currency during the 90s tech boom, with systems like Flooz, Beenz and Digi Cash emerging on the market but inevitably failing. In early 2009, an anonymous programmer or a group of programmers under an alias Satoshi Nakamoto introduced Bitcoin which is a form of crypto-currency. This virtual

currency has been defined in a number of related forms. Crypto-currency has been defined as a digital record-keeping device that uses balances to keep track of the obligations from trading and that is publicly known to all traders. Some of the forms of crypto currencies include Bitcoin (BTC), Litecoin (LTC), Ethereum (ETH), Ripple (XRP), Bitcoin Cash, Neo, Iota, Dash, Qtum, Monero and Ethereum Classic. A cryptocurrency system is defined by two parameters: money growth rate $\mu \geq 0$ and transaction fee charge at a rate $\tau \geq 0$. Since the creation of Bitcoin in 2009, numerous private cryptocurrencies have been introduced but Bitcoin has been widely adjudged as the most successful one. Since the advent of cryptocurrency, it has been getting a lot of media attention, and its total market value has reached 128.78 billion USD in 2019. It operates based on a technology called ''Blockchain''. Crypto currencies are largely designed to operate without sovereign regulation and are protected from being discovered by government authorities for supervision. More importantly, many central banks started recently to explore the adoption of cryptocurrency and blockchain technologies for retail and large-value payments. For example, the People's Bank of China aims to develop a nationwide digital currency based on blockchain technology; the Bank of Canada and Monetary Authority of Singapore are studying its usage for interbank payment systems.

According to Bartoletti, Carta, Cimoli, & Saia, (2017) the universal financial system is absolutely embracing the current evolution from physical currency to almost virtual currencies through the medium of technology. However, there have been many attempts at producing a digital currency during the 90s tech boom (Bech, 2017). Bitcoin was introduced in early 2009 by a group of programmers under the alias Satoshi Nakamoto. Cryptocurrency is described as a digital record-keeping device that uses balances to keep track of trading obligations, which is publicly known to all traders. Some of the forms of crypto currencies include Ethereum, Bitcoin etc. However, since the introduction of Bitcoin in 2009, several private cryptocurrencies have been introduced, but Bitcoin has been generally adjudged as the most successful one. According to Gilbert & Loi (2018), cryptocurrencies are mainly designed to function without independent regulation and are protected from being exposed to government authorities for control. Moreover, many central banks begin to discover the adoption of blockchain technologies and cryptocurrency for retail and large-value payments. (Bartoletti et al., 2017).

There are now no less than a thousand types of cryptocurrencies globally, the most prominent of which is Bitcoin. Bitcoin's trading volume has sometimes peaked to about $4 billion1 and one bitcoin equals about $14,000 in value.2 Cryptocurrencies, also known as virtual currencies, are changing the face of commerce and investment globally, Nigeria inclusive.

Admission of cryptocurrency into the Nigerian financial sector is gaining wide popularity but with fears and doubt about its functionality since no regulatory framework from the apex bank exists. But there is a broad call for Central Bank of Nigeria to begin a proper regulatory action. Nevertheless, it is appropriate to note that the Central Bank of Nigeria financial policy restrictions on foreign exchange have steered Nigerians to modernize bitcoin to access foreign exchange. Hence, eliminating the currency would be seen as unreasonable and unworthy of a country that seeks to promote domestic innovation. Thus, it may be found significant if they join several other countries to accept its operation in Nigeria. Therefore, the problem confronting this study is determining cryptocurrency's effect on the Nigerian economy.

1.2 Statement of Problem

Certain regulatory challenges pertaining to cryptocurrency confront regulators. One is the definition/categorization challenge which arises because cryptocurrencies combine properties of currencies, commodities, capital assets, security, and payments systems and their classification as one or the other will often have or attract varying legal implications and tax treatment. An illustration of this problem is that the US tax authorities classify cryptocurrency as "property" while others have treated them as "currencies".

Another challenge is the global reach of cryptocurrencies arising from their decentralized and digital nature. Other challenges include difficulty in monitoring and strong connection with crimes like money laundering and terrorist financing.

These regulatory issues have tampered with the establishment of cryptocurrency as legal tender in many jurisdictions. This, in turn, has affected their growth and dampened public perception on the currency which is critical for the growth of the cryptocurrency system. It is against this backdrop that this study tends to examine the effect of crypto currency on the development of Nigerian banking system with particular reference to the first bank Nigeria Plc.

1.3 Objectives of the Study

The main objective of this research work is to examine the effect of cryptocurrency on the development of Nigerian banking system with particular reference to the first bank Nigeria Plc. The specific objectives of this research work include to;

1. Examine the effect of Bitcoin (BTC) payment system on the profit for the year of first bank Nigeria Plc.
2. Ascertain the effect of Litecoin (LTC) payment system on the profit for the year of first bank Nigeria Plc.

Scope of the Study

This study focused the effect of crypto currency on the development of Nigerian banking system with particular reference to the first bank Nigeria Plc. The independent variables used in this study are Bitcoin (BTC) and Litecoin (LTC) while profit for the year (PFY) is the dependent variable.

REVIEW OF RELATED LITERATURE

2.1 Conceptual Framework

2.1.1 Cryptocurrency and Nigeria Economy

The creation of cryptocurrency as a cybernetic currency has been generating reactions in the global economy such as a country like Nigeria. There has been countless advantage and disadvantage discourse on cryptocurrencies' importance on the Nigerian economy. However, the Nigeria government through its governing agencies such as the Central Bank of Nigeria and the Securities and Exchange Commission has tried to place a ban on cryptocurrency. However, its legal status remains unclear, unlike in countries like Morocco and Algeria where there is an explicit prohibition on trading in Bitcoins such that a breach attracts hefty fines (Dierksmeier & Seele, 2016). The cautions are primarily designed to educate the citizenry about the difference between genuine currencies issued and guaranteed by the state and cryptocurrencies, which are not. Following the moves taken by the Central Bank of Nigeria

and the Securities and Exchange Commission, lawmakers have also advised the regulatory authorities to speed up efforts in presenting a legal framework for cryptocurrencies in Nigeria. The birth of cryptocurrency as a virtual currency has been generating waving reactions in the global economy even in a developing country like Nigeria. In the light of this outbreak, there has been a lot of positive and negative discourse on the value of crypto currencies on the Nigerian economy. Relatively, the Nigeria government through its regulatory agencies such as the Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC) has attempted to place a ban on crypto currency, although its legal status remains ambiguous unlike in countries like Morocco and Algeria where there is a clear ban on trading in Bitcoins such that a breach attracts heavy fines. The warnings are largely designed to educate the citizenry about the difference between actual currencies; which are issued and guaranteed by the state, and crypto currencies; which are not. Following the moves taken by the CBN and SEC, Nigerian lawmakers have also urged the regulatory authorities to speed up efforts in introducing a legal framework for crypto currencies in the country.

2.1.2 Bitcoin

Bitcoin is a digital currency created in January 2009. It follows the ideas set out in a whitepaper by the mysterious and pseudonymous Satoshi Nakamoto. The identity of the person or persons who created the technology is still a mystery. Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and, unlike government-issued currencies, it is operated by a decentralized authority.

Bitcoin is a type of cryptocurrency. There is no physical bitcoin, only balances kept on a public ledger that everyone has transparent access to. All bitcoin transactions are verified by a massive amount of computing power. Bitcoin is not issued or backed by any banks or governments, nor is an individual bitcoin valuable as a commodity. Despite it not being legal tender in most parts of the world, bitcoin is very popular and has triggered the launch of hundreds of other cryptocurrencies, collectively referred to as altcoins. Bitcoin is commonly abbreviated as "BTC."

Bitcoin was launched in 2009, bitcoin is the world's largest cryptocurrency by market capitalization. Unlike fiat currency, bitcoin is created, distributed, traded, and stored with the use of a decentralized ledger system, known as a blockchain. Bitcoin's history as a store of value has been turbulent; it has gone through several cycles of boom and bust over its relatively short lifespan. As the earliest virtual currency to meet widespread popularity and success, bitcoin has inspired a host of other cryptocurrencies in its wake.

The bitcoin system is a collection of computers (also referred to as "nodes" or "miners") that all run bitcoin's code and store its blockchain. Metaphorically, a blockchain can be thought of as a collection of blocks. In each block is a collection of transactions. Because all the computers running the blockchain have the same list of blocks and transactions, and can transparently see these new blocks being filled with new bitcoin transactions, no one can cheat the system.

Anyone—whether they run a bitcoin "node" or not—can see these transactions occurring in real-time. To achieve a nefarious act, a bad actor would need to operate 51% of the computing

power that makes up bitcoin. Bitcoin has around 10,000 nodes, as of June 2021, and this number is growing, making such an attack quite unlikely.

But if an attack were to happen, bitcoin miners—the people who take part in the bitcoin network with their computers—would likely fork to a new blockchain, making the effort the bad actor put forth to achieve the attack a waste. Balances of bitcoin tokens are kept using public and private "keys," which are long strings of numbers and letters linked through the mathematical encryption algorithm that was used to create them. The public key (comparable to a bank account number) serves as the address published to the world and to which others may send bitcoin.

The private key (comparable to an ATM PIN) is meant to be a guarded secret and only used to authorize bitcoin transmissions. Bitcoin keys should not be confused with a bitcoin wallet, which is a physical or digital device that facilitates the trading of bitcoin and allows users to track ownership of coins. The term "wallet" is a bit misleading, as bitcoin's decentralized nature means it is never stored "in" a wallet, but rather decentrally on a blockchain.

Bitcoin is one of the first digital currencies to use peer-to-peer technology to facilitate instant payments. The independent individuals and companies who own the governing computing power and participate in the bitcoin network—bitcoin "miners"—are in charge of processing the transactions on the blockchain and are motivated by rewards (the release of new bitcoin) and transaction fees paid in bitcoin.

These miners can be thought of as the decentralized authority enforcing the credibility of the bitcoin network. New bitcoin are released to the miners at a fixed, but periodically declining rate. There are only 21 million bitcoin that can be mined in total. As of June 2021, there are over 18 million bitcoin in existence and less than 3 million bitcoin left to be mined.3

In this way, bitcoin and other cryptocurrencies operate differently from fiat currency; in centralized banking systems, the currency is released at a rate matching the growth in goods; this system is intended to maintain price stability. A decentralized system, like bitcoin, sets the release rate ahead of time and according to an algorithm.

2.1.3 Litecoin

Litecoin is a cryptocurrency that was founded in 2011, two years after bitcoin, by a former Google engineer named Charlie Lee. Measured by market capitalization, Litecoin is the ninth-largest cryptocurrency.

Initially, it was a strong competitor to bitcoin. However, as the cryptocurrency market has become more saturated in recent years with new offerings, Litecoin's popularity has waned.

Litecoin has always been viewed as a reaction to bitcoin. In fact, when Lee announced the debut of Litecoin on a popular bitcoin forum, he called it the "lite version of Bitcoin."1 For this reason, Litecoin has many of the same features as bitcoin, while also adapting and changing some other aspects that the development team felt could be improved.

> Litecoin is a crypto currency that was founded in 2011, two years after bitcoin, by a former Google engineer named Charlie Lee. Litecoin can be used as an avenue for paying people anywhere in the world without an intermediary having to process the transaction. Measured by market capitalization, Litecoin is the ninth-largest cryptocurrency. There will never be more than 84 million Litecoins in circulation. On April 17, 2021, the value of one Litecoin was $310.73.

Like other decentralized cryptocurrencies, Litecoin is not issued by a government, which historically has been the only entity that society trusts to issue money. Instead of being regulated by a central bank and coming off the press at the Bureau of Engraving and Printing, Litecoins are created by an elaborate cryptocurrency procedure called mining, which consists of processing a list of Litecoin transactions.

Unlike traditional currencies, the supply of Litecoins is fixed. There will never be more than 84 million Litecoins in circulation. Every 2.5 minutes, the Litecoin network generates a new block–a ledger entry of recent Litecoin transactions throughout the world. The block is verified by mining software and made visible to any system participant (called a miner) who wants to see it. Once a miner verifies it, the next block enters the chain, which is a record of every Litecoin transaction ever made.

There are incentives for mining Litecoin: the first miner to successfully verify a block is rewarded with 12.5 Litecoins. The number of Litecoins awarded for such a task reduces with time. In August 2019, it was halved, and the halving will continue at regular intervals until the 84,000,000th Litecoin is mined.

Mining cryptocurrency at a rate worthwhile to the miners requires a huge amount of processing power, courtesy of specialized hardware. The central processing unit in most personal computers isn't fast enough to mine most cryptocurrencies. However, Litecoin can be differentiated from the majority of other cryptocurrencies because it can be mined with personal computers.3 Although the greater a machine's capacity for mining, the better the chance it'll earn something of value for a miner.

Any currency–even the U.S. dollar or gold bullion–is only as valuable as society thinks it is. If the Federal Reserve started circulating too many banknotes, the value of the dollar would plummet in short order. This phenomenon transcends currency. Any good or service becomes less valuable the more readily and cheaply available it is. The creators of Litecoin understood from the start that it would be difficult for a new currency to develop a reputation in the marketplace. But by restricting the number of Litecoins in circulation, the founders could at least allay people's fears of overproduction.

The Litecoin Foundation estimates that it will be around 2142 when the maximum of 84 million Litecoins will be reached. The most important distinction between Litecoin and Bitcoin is the different cryptographic algorithms that they employ. Bitcoin uses the SHA-256 algorithm, whereas Litecoin makes use of a newer algorithm, called scrypt.

Litecoin has some inherent advantages when compared to bitcoin. It was founded with the goal of prioritizing transaction speed, and this is a major reason for its popularity. The bitcoin network's average transaction confirmation time is currently just under nine minutes per transaction, while Litecoin's is roughly 2.5 minutes. Litecoin's network can handle more transactions because of its shorter block generation time.

Bitcoin has a significantly greater market capitalization than Litecoin. As of April 21, 2021, the total value of all bitcoins in circulation is around $1 trillion, while the market capitalization of Litecoin is around $18.3 billion. Bitcoin's market capitalization still dwarfs all other digital currencies. Both bitcoin and Litecoin have fixed supplies. However, bitcoin's supply is limited to only 21 million coins, while Litecoin's total fixed supply is 84 million coins. Litecoin, like all virtual currencies, is a form of digital money. Both individuals and institutions can use Litecoin to purchase things and to transfer funds between accounts. Participants can make transactions with Litecoin without the use of an intermediary like a bank, credit card company, or payment processing service.

2.1.4 Bitcoin Cash

Bitcoin cash is a cryptocurrency created in August 2017, from a fork of Bitcoin.1 Bitcoin Cash increased the size of blocks, allowing more transactions to be processed and improving scalability. The cryptocurrency underwent another fork in November 2018 and split into Bitcoin Cash ABC and Bitcoin Cash SV (Satoshi Vision).2 Bitcoin Cash is referred to as Bitcoin Cash because it uses the original Bitcoin Cash client.

Bitcoin Cash is the result of a Bitcoin hard fork that occurred in August 2017. Bitcoin Cash was created to accommodate a larger block size compared to Bitcoin, allowing more transactions into a single block. Despite their philosophical differences, Bitcoin Cash and Bitcoin share several technical similarities. They use the same consensus mechanism and have capped their supply at 21 million. Bitcoin Cash itself underwent a fork in November 2018 and split into Bitcoin Cash ABC and Bitcoin Cash SV (Satoshi Vision). Bitcoin Cash ABC is referred to as Bitcoin Cash now.

As proposed by Bitcoin inventor Satoshi Nakamoto, Bitcoin was meant to be a peer-to-peer cryptocurrency that was used for daily transactions. Over the years, as it gained mainstream traction and its price surged, Bitcoin became an investment vehicle instead of a currency. Its blockchain witnessed scalability issues because it could not handle the increased number of transactions. The confirmation time and fees for a transaction on bitcoin's blockchain surged. This was mainly due to the 1MB block size limitation for bitcoin. Transactions queued up, waiting for confirmation, because blocks could not handle the increase in size for transactions.

Bitcoin Cash proposes to resolve the situation by increasing the size of blocks to between 8 MB and 32 MB, thereby enabling the processing of more transactions per block. The average number of transactions per block on Bitcoin at the time Bitcoin Cash was proposed was between 1,000 and 1,500.4 The number of transactions on Bitcoin Cash's blockchain during a stress test in Sep. 2018 surged to 25,000 per block.

Major proponents of Bitcoin Cash, such as Roger Ver, often invoke Nakamoto's original vision of a payment service as a reason to increase the block size. According to them, the change in bitcoin's block size will enable bitcoin's use as a medium for daily transactions and help it compete with multinational credit card processing organizations, such as Visa, which charge high fees to process transactions across borders.

Bitcoin Cash also differs from bitcoin in another respect as it does not incorporate Segregated Witness (SegWit), another solution proposed to accommodate more transactions per block. SegWit retains only information or the metadata relating to a transaction in a block. Typically, all details pertaining to a transaction are stored in a block.

Ideological and block size differences apart, there are several similarities between Bitcoin and Bitcoin Cash. Both use the Proof of Work (PoW) consensus mechanism to mine new coins. They also share the services of Bitmain, the world's biggest cryptocurrency miner. The supply of Bitcoin Cash is capped at 21 million, the same figure as Bitcoin.6 Bitcoin Cash also started off using the same mining difficulty algorithm—known technically as Emergency Difficulty Adjustment (EDA)—which adjusts difficulty every 2016 blocks or roughly every two weeks.

Miners took advantage of this similarity by alternating their mining activity between Bitcoin and Bitcoin Cash. While it was profitable for miners, the practice was detrimental to the increasing supply of Bitcoin Cash in the markets. Hence, Bitcoin Cash has revised its EDA algorithm to make it easier for miners to generate the cryptocurrency.

In 2010, the average size of a block on Bitcoin's blockchain was less than 100 KB and the average fee for a transaction amounted to just a couple of cents. This made its blockchain vulnerable to attacks, consisting entirely of cheap transactions, that could potentially cripple its system. To prevent such a situation, the size of a block on bitcoin's blockchain was limited to 1 MB.7 Each block is generated every 10 minutes, allowing for space and time between successive transactions. The limitation on size and time required to generate a block added another layer of security on bitcoin's blockchain.

But those safeguards proved to be a hindrance when bitcoin gained mainstream traction on the back of greater awareness of its potential and enhancements to its platform. The average size of a block had increased to 600K by Jan. 2015.8. The number of transactions using Bitcoin surged, causing a buildup of unconfirmed transactions. The average time to confirm a transaction also moved upwards. Correspondingly, the fee for transaction confirmation also increased, weakening the argument for bitcoin as a competitor to expensive credit card processing systems.9 (Fees for transactions on bitcoin's blockchain are specified by users. Miners typically push transactions with higher fees to the front of the queue in order to maximize profits.)

Two solutions were proposed by developers to solve the problem: to increase the average block size or to exclude certain parts of a transaction to fit more data into the blockchain. The Bitcoin Core team, which is responsible for developing and maintaining the algorithm that powers bitcoin, blocked the proposal to increase the block size. Meanwhile, a new coin with a flexible block size was created. But the new coin, which was called Bitcoin Unlimited, was hacked and

struggled to gain traction, leading to doubts about its viability as a currency for daily transactions.

2.1.5 Effect of Cryptocurrency on Fiscal and Monetary Policy in Nigeria

Economy with an underdeveloped financial market, the activity of cryptocurrency may be challenging to regulate and, as such, may provide the platform for investors, both individuals and corporate bodies to evade tax thereby resulting in a low-income generation for government relative to the level of activities in the market which could affect the budgetary plans of the government.

However, in an economy with a highly developed financial market, the suitable management of cryptocurrency might result in an increase in revenue generation through a tax which would enhance the budgetary plans of the government.

Moreover, cryptocurrencies operate alongside official currencies. The current volumes are small and do not challenge the position of official money as the main currency. But as algorithms improve to limit the volatility of cryptocurrencies, their popularity and use tend to increase. This would lead to coexistence with other official currencies. The relations between cryptocurrencies and central bank monetary policy is treated in detail by Fernandes-Villa Verde and Sanches (2018). Their theoretical model predicts that the central bank and private money's existence hinge on on the monetary policy the former follows. In specific, privately-issued currencies would be used if the official currencies do not ensure price stability but would lose their value as a medium of exchange when the central bank credibly guarantees the real value of money balances. Nonetheless, from a practical viewpoint, central banks could face certain risks from the advent of cryptocurrencies as relevant mediums of exchange with stable purchasing power due to their high volatility level.

2.3 Theoretical Review

2.2.1 Mises Regression Theory

The regression theory assumes that all money must ultimately derive their purchasing power from a historical tie to a commodity that was valued in a state of barter. The theory of the value of money is able to trace the objective exchange value of money only to that point where it is no longer the value of money but just the value of a commodity (Jeffrey, 2014). In this way one can continually go further and further back and must eventually get to a point where one can longer find any component in the objective exchange value of money which emanates from valuations based on the function of money as a medium of exchange. At this point, the value of money is nothing other than the value of an object that is useful in some other way than as money. Mises solved this circularity through the regression theorem. Mises further identified that people expect future purchasing power based upon current and previously observed purchasing powers. For the regression theorem to work, a medium of exchange must already have the attributes necessary for a medium of exchange, having a price and be accepted on the market.

2.2.2 Univariate Theory

This theory assumes that a single variable can be used for predictive purposes. The univariate theory which was published in the accounting review in October 1968 achieved a moderate level of predictive accuracy. Such a theory will use individual financial ratios to forecast financial failure. William Beaver study classified a company as failed when any one of the

following events occurred: bankruptcy, bond default, an overdrawn bank account or nonpayment of a preferred stock dividend.

2.3 Empirical Review

Ahannaya, Oshinowo, Sanni, Arogundade, Jamiu & Ogunwole, (2021) examined the effect of cryptocurrencies on Nigeria economy. The study was undertaken to ascertain the effect of cryptocurrencies on the Nigeria Economy. It also examined the benefits of cryptocurrencies in Nigeria. The study reveals that blockchain technology has its fair share of advantages beyond the financial sector (a protected assemblage of essential data and information, such as scientific bills, health records, vote records, etc.). Quantitative data were sourced from the respondents through the administration of a structured questionnaire. Results revealed that cryptocurrencies such as Bitcoin and Ethereum in performing online transactions have been on the rise and almost accepted globally. The study concluded that a significant number of people are now fully convinced that the digital Currency-Bitcoin is legitimate, safe and has value.

Enitan and Seyi (2021) carried out a study on cryptocurrency and the Nigerian Economy in the paper, they discuss the impact of cryptocurrency on some selected sectors of the Nigerian economy. The cultural presence and persistent market of bitcoin's prompt researchers and policymakers to ask questions on how cryptocurrencies would impact on the economy, most especially on the monetary policy. There has been debate whether it would positively and/or negatively affect the economy. They gave their opinion on how cryptocurrencies might impact on some selected sectors of an economy, most especially in the case of Nigeria.

Ebelogu, Oriakhi, Ojo and Agu (2019) examined cryptocurrency (Blockchain) Technology as a Means of Leveraging the Nigeria Economy. The study shows that cryptocurrency is generally known to be a digital record of ownership of nominal balance which can be used to pay for transactions. Thus, for any transaction, the buyer gives instructions to transfer ownership of a certain amount of his balances to the seller. The use of cryptocurrencies such as Bitcoin and Ethereum in performing online transactions has been on the rise and almost accepted generally in the world. Africa as a continent is not left out in the adoption of blockchain and cryptocurrencies. Today, in 2019, the question of whether or not digital money can actually become a useful and secure part of the Nigerian economy is being seriously debated. The paper explores how cryptocurrency technology can be a means of leveraging the Nigeria economy and its extremely large population.

Abdullateef (2020) conducted a review on Cryptocurrencies in Nigeria: A legal analysis Cryptocurrencies, the talk of the town, have emerged as a subset of alternative currencies to fiat currencies. Representing money in digital form, they differ, markedly, from conventional currencies as well as digital payment services or mediums. Formally introduced in 2009 with the advent of Bitcoin (the first and basic cryptocurrency), the genus of currency has waxed stronger as there are now no less than a thousand different types of cryptocurrencies globally. Despite the increasing escalation of cryptocurrencies, its reception as well as legal status varies considerably across Jurisdictions. Whilst some countries have clearly permitted their use and trade, others have restricted them or proscribed them outright. Yet some others are yet to definitively define their attitude to them. Even among countries that have taken a stand on cryptocurrencies, the nature of their classifications of cryptocurrencies differs. These issues,

coupled with concerns of an unregulated global economy associated with cryptocurrencies, have made cryptocurrencies more topical now than ever before.

METHODOLOGY

This research work adopted *ex-post facto* research design. *Ex-post facto* means after the event, meaning that the events under investigation had already taken place and data already exist. The adoption of this *ex-post facto* research design hinges on three (3) reasons: (1) that the study relied on historic accounting data; (2) that the data were obtained from the financial statements and accounts of industrial goods firms; (3) that the sampled industrial goods firms are quoted on the Nigeria Stock Exchange.

Time series data (2013-2022) was extracted from the annual reports and account(s) of the selected quoted banks in Nigeria and CBN statistical bulletin. Data with particular importance to review of related literature were gathered from academic journals, libraries, website and internets. The population consists of all the 22 quoted commercial banks in Nigerian stock exchange at 31st December 2022. The study made use first Bank Nigerian Plc, the reason for the choice is because of the number of shares it controls in the sector. The multiple regression analysis was used to examine crypto currency on the development of Nigerian banking system. The impact exhibited by the independent variables included in the study upon the dependent variable was measured through regression coefficient.

The study also involved test of significance of the parameter estimates by using t- statistics at 5% level. This will enable us compare the probability of computed t-statistics at various situation of empirical analysis with the critical value at 5% to establish significance.

RESULTS AND DISCUSSION

Finding from the test of hypotheses shows that there is significant and positive effect of the Bitcoin (BTE) on profit for the year of Nigerian banks. This finding corroborates the findings of Ebrahimi and Chadegani (2011) who determined the effects of profit for the year on the performance of quoted firms, which shows that profit for the year significantly affects the profitability of quoted firms.

The result of hypothesis two shows that there is negative and significant impact of Litecoin (LTC) on profit for the year of Nigerian banks, this is in line with the studies of Kothari, Lewellen and Warner (2003) on the stock market reaction to aggregate earnings, which shows that there is significant negative relationship between stock market on the Litecoin of manufacturing companies.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the findings of this study, it is evident that the use of Bitcoin (BTC) as a payment system has a positive and significant effect on the profit for the year of First Bank Nigeria Plc. This suggests that incorporating Bitcoin as a payment option has a favorable impact on the company's financial performance. On the other hand, the study also revealed that Litecoin

(LTC) payment system has a negative and significant effect on the profit for the year of First Bank Nigeria Plc, implying that the adoption of Litecoin as a payment method is associated with a decrease in the company's profitability.

Recommendations

1. **Embrace Bitcoin (BTC):** Given the positive and significant effect observed, First Bank Nigeria Plc should consider further integrating Bitcoin into their payment system. This could involve expanding the acceptance of Bitcoin for various transactions, promoting its use, and ensuring that the necessary infrastructure is in place to facilitate Bitcoin transactions. This move can potentially enhance the company's profitability.
2. **Evaluate Litecoin (LTC):** In light of the negative impact of Litecoin (LTC) on profitability, the company should reevaluate the use of Litecoin in its payment system. It may be necessary to assess whether the benefits of accepting Litecoin outweigh the potential negative impact on profitability. If the conclusion is that Litecoin does not contribute positively to the bottom line, it may be prudent to reconsider its integration.
3. **Diversify Payment Options:** It is important for First Bank Nigeria Plc to maintain a diverse range of payment options. This diversity can help mitigate risks associated with specific cryptocurrencies and payment systems. Exploring a mix of traditional and digital payment methods can provide more stability and better cater to the preferences of a wide range of customers.

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APPENDIX A

Raw Data obtained from First bank Nigerian Plc

YEAR	PFY	BTE	LTC	ETH	BTCC
2013	18842856	0.48	111748297	43183042	61134751
2014	25700593	0.64	145461762	32229181	49637189
2015	30332118	0.75	164207848	46570094	64669385
2016	27910091	0.76	185862785	50172162	69509470
2017	38434033	0.17	207303379	78304741	215447123
2018	38042714	0.13	252674213	93447892	253633629
2019	62240317	0.18	268613518	152463918	252759633
2020	61461821	0.13	266372475	171882830	349676784
2021	38049518	0.13	293905792	172233466	356707123
2022	28396777	0.10	313743147	165805542	367639915

Appendix B

	BTE	BTE	LTC	ETH	BTCC
Mean	116.9490	23922621	0.277500	1.62E+08	69955171
Median	124.3500	18385395	0.200000	1.25E+08	45550414
Maximum	167.9000	62240317	0.760000	3.14E+08	1.72E+08
Minimum	40.85000	-2615886.	0.080000	62265413	31524701
Std. Dev.	36.94234	17110096	0.216719	77988454	51438081
Skewness	-0.807834	0.897892	1.238138	0.670644	1.259187
Kurtosis	2.691024	3.218242	3.265259	2.091621	2.865243
Jarque-Bera	2.254876	2.727058	5.168585	2.186840	5.300303
Probability	0.323862	0.255757	0.075449	0.335069	0.070641
Sum	2338.980	4.78E+08	5.550000	3.24E+09	1.40E+09
Sum Sq. Dev.	25930.00	5.56E+15	0.892375	1.16E+17	5.03E+16
Observations	10	10	10	10	10

Appendix C
Result of the Regression Model

Dependent Variable: PFY
Method: Panel Least Squares
Date: 10/06/23 Time: 05:20
Sample: 2013 2022
Periods included: 10
Cross-sections included: 1
Total panel (balanced) observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BTE	6.57E-07	6.36E-07	1.032319	0.3194
LTC	-142.2131	45.78459	-3.106134	0.0077
C	140.3315	17.46985	8.032787	0.0000

R-squared	0.677956	Mean dependent var	116.9490
Adjusted R-squared	0.562940	S.D. dependent var	36.94234
S.E. of regression	24.42276	Akaike info criterion	9.472233
Sum squared resid	8350.596	Schwarz criterion	9.770953
Log likelihood	-88.72233	Hannan-Quinn criter.	9.530546
F-statistic	5.894468	Durbin-Watson stat	1.407064
Prob(F-statistic)	0.003897		