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THE EFFECT OF CRYPTOCURRENCIES ON NIGERIA ECONOMY

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Abstract: *This 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.*

Keywords: Bitcoin, Blockchain, Cryptocurrencies, Ethereum

1.1 Background to the Study

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)

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.

2.0 Literature Review

2.1 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.

2.2 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 Effect on Agriculture

Blockchain technology has immense possibility of solving significant difficulties in agriculture. The challenge for blockchain is connecting the technology to viable business models and compelling use cases. Blockchains have enormous possibility to create and increase access to finance in the agricultural sector, thereby addressing food scarcity and enhancing food security.

2.3 Theoretical Review

2.3.1 Mises Regression Theorem

The regression theorem 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.

3.0 METHODOLOGY

Survey and expo facto research methods will be employed for this study. The survey research design entails obtaining facts from several individuals concerning a phenomenon at a particular time; hence, for this study, existing listed firms and government enterprises, professionals, company Executives in Nigeria are such unit under investigation. The primary and secondary data collection method will enable us to establish how cryptocurrencies impact the Nigerian economy and how they may likely affect us in the future. In like manner, data will be collected from the firms under investigation through the use of questionnaire and employing econometric techniques to estimate the drawn models to accompany the use of descriptive statistics.

This study will use a structured questionnaire to answer the research questions raised in this study from professionals related to this field of study. A pilot survey will be carried out before the main research is embarked on. The questionnaire to be used for this study will be subjected to content validity test using similar respondents not included in the sample of the study. The population of the study consisted of the nine banks operating in Nigeria.

Table 1: List of Banks

S/N	Banks	S/N	Banks
1	Access Bank Pic	11	Mainstreet Bank
2	Citibank Ltd	12	Skye Bank PIc
3	Diamond Bank Plc	13	Stanbic IBTC
4	Ecobank Nigeria PIc	14	Standard Chartered Bank Ltd
5	Enterprise Bank	15	Sterling Bank PIc
6	Fidelity Bank PIc	16	Union Bank Plc
7	First Bank of Nigeria Pic	17	United Bank for Africa Plc
8	First City Monument Bank PIc	18	Unity Bank Plc
9	Guaranty Trust Bank Pic	19	Wema Bank PIc
10	Keystone Bank	20	Zenith Bank PIc

There were 73,246 employees in the 20 commercial banks at the end of year 2011 (NDIC, 2012.) with 7,430 staff in the credit groups (Olutoye, 2014) while a new total employee survey was conducted. The researcher decision on the population sample frame is justified by Peretomode (1996) studies and Yomere and Agbonifo (1999) where both recommended 10% sample size to be adequate for scientific studies. The researcher in the process of getting successful answers from the research questions as set out in the objectives, data need to be obtained and analyzed. The source of primary data used for this study was a questionnaire as an instrument. Secondary data were also collected from publications and related articles to the Central Bank of Nigeria's research work from the annual statistical bulletin.

3.1 Findings and Discussions

Test of Hypothesis

The hypothesis tested the effect of cryptocurrencies on Nigeria economy. This hypothesis was tested using the model stated below.

$Y = f(X)$

$CC_{it} = \alpha_1 + \beta_1 NE_{it} + \mu_1$

where:

Y = Cryptocurrency (CC)

X = Nigeria Economy (N.E.)

α_1 is the intercepts (constants)

β_1 is the coefficient

μ_1 are the stochastic variables of each model.

$_{it}$ represents infirm "i" in year "t"

Research Hypothesis: Cryptocurrency has no significant impact on Nigeria Economy.

Table 2: Regression Estimate

Primary Data Analysis

Variable	**Model 4**			
	Coefficient	**Std Error**	**t-Stat.**	**Prob.**
C	26.05436	1.063152	24.808812	0.0002
LR	0405894	0.025064	14.864281	0.0000
R^2	0.414827			
Adj. R^2	0.425974			
S.E. of Reg	1.266041			
F-Statistic	16.961444			
Prob.(F-Stat)	0.000005			

Dependent Variable: Log (N.E.)

Significance @5%

Source: Computed by the authors

$\text{Log (EPQF)} = \alpha + \beta_4 LR + \mu$

$\text{Log (EPQB)} = 27.0694 + 0.503685\ LR$

------------------- Primary Data

3.2 Interpretation of Result

The model tested the effect Cryptocurrency (CC) has on Nigeria Economy (N.E.). The result shows that CC independently has a positive effect on N.E. as can be seen from the coefficient; β_1= +0.503685. This relationship is statistically significant; this is because the probability of t-statistics of 0.0000 is less than the acceptable 5% level of significant.

Furthermore, the R- square, which is the coefficient of determination showed the magnitude of variations caused on Nigeria Economy (N.E.) by the explanatory variable, Crypto Currency (CC) to be about 51%. This indicates that about 52% variation in N.E. is attributed to a unit change in CC, while the remaining 48% variation is caused by other explanatory factors outside this model.

Thus, the result indicates that Crypto Currency (CC) has an significant effect on Nigeria Economy (N.C.).

Therefore, we reject the null hypothesis and reject the alternate hypothesis.

3.1 A PRIORI EXPECTATION

The researcher is expecting the independent variable, which is cryptocurrencies to positively influence the dependent variables, i.e., Nigerian economy. This implies that the Nigerian economy's compliance has a direct and positive relationship with the Nigerian economy.

The a priori signs are;

Ho 1: $\beta > 0$ = positive

For Hypotheses Ho 1 P-value < 0.05, Accept Alternate and reject Null

CONCLUSION

Several suggestions have emerged from research concerning the government's response to legislating cryptocurrency ranging from the creation of state-owned cryptocurrency to banning, the danger of most of these recommendations would be future strive for dominance and superiority among nations resulting from divergent views and approaches toward its legislation. Considering this fact, the cost of ignoring the usability of cryptocurrency outweighs the perceived risks of not legislating it in the future, especially in developing countries like Nigeria.

Nevertheless, numerous financial regulatory authorities issued casual warnings to the general public, advising of the risks of involvement in digital currencies; however, digital currencies are flourishing since the number of businesses and persons who accept them as payment are increasing every day. Therefore, it could be concluded that a significant number of people are now fully persuaded that the digital currency is genuine and has value. Though, digital currencies may be attractive to cybercriminals and present a host of new challenges to law enforcement in Nigeria, their approval as a national development tool in the digital age should be generally encouraged.

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