

IMPACT OF NIGERIAN BLOCKCHAIN POLICY ON DIGITAL CURRENCY MARKET PERFORMANCE

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Abstract

The recent blockchain policy pronouncement in Nigeria gave rise to examine the effect on digital currency market performance. Knowing that policy statements played a dynamic role on market performances, and for the fact that digital currency is link to market volatility, this work analyzed the impact of Nigerian blockchain policy on digital currency market performance during the short-term periods. Based on the exigencies, the research covered a period of 23 weeks using a-weekly data between May 3, 2023 and October 4, 2023. The study employed selected top-five digital currencies including Bitcoin, Ethereum, Tether, BNB, and XRP of their market performances extracted from crypto database. The generalized autoregressive conditional heteroskedasticity (GARCH) least squares analytical tool was applied to ascertain how Bitcoin, Ethereum, Tether, BNB, and XRP digital currencies market performance responded to Nigerian blockchain policy in the short-term. The findings showed that Nigerian blockchain policy impacted negatively on Bitcoin, XRP, and BNB market performance in the short-term. However, Nigerian blockchain policy impacted positively on Tether, and Ethereum market performance in the short-term. The research further revealed Ethereum, and BNB digital currencies constituted significant variables of study. Finally, Nigerian blockchain policymakers were recommended to revised and address the diverse impacts on digital currencies with tailored regulations to enhance investors protection, and support the positive trends for a balance-support of the digital currency market.

Keywords: Digital currency, Market performance, Blockchain policy, GARCH, Nigeria

JEL: C12, D53, E3, G14, G18, M15

INTRODUCTION

The fast growing of digital currency consciousness and blockchain technology has introduced both openings and contests in the investment space. According to Yermack (2018), digital currencies and blockchain technology are the most exciting recent innovations in finance. In precise, Nigeria appeared to have also queue in and has become one of the significant players in this global inclination. As one of Africa's major and furthestmost dynamic economies, Nigeria has perceived a rush in digital currency acceptance, driven within the young brackets. The Nigerian government, identifying the potential of blockchain technology, has actively formulated policies to regulate and connect its benefits. Thoughtfully, the short-term impact of these policies on the digital currency market performance is critical for both investors and policymakers. Blockchain technology is highly debated on contemporary research in recent

times. [Thomason, et al \(2018\)](#) stated that, blockchain innovation can help to build trust and transparency in international finance climate. Blockchain is one of the new technologies that can empower Nigerians financially, including to gain access for more financial transactions. The blockchain is a system of recording information in a way that makes it difficult or nearly impossible to change, hack, or cheat the system.

Blockchain technology is a decentralized ledger system that can reinforce most digital currencies, including Bitcoin, Ethereum, Tether, BNB, XRP, among others. Its core merits; transparency, safety, and immutability have made it attractive as a substitute to the traditional financial systems. [Verde, et al \(2019\)](#) described blockchain as a digital database of cryptographically that validate transactions and stored data in blocks. Again, [Rejeb, et al \(2020\)](#) postulated that new technologies such as blockchain have altered the dynamics of brand marketing, enabling a broader reach and more personalized targeting aimed at increasing brand trust and enhancing customer loyalty.

In Nigeria, blockchain technology and digital currencies have gained grip due to factors such as high inflation, limited access to traditional banking services, and a growing technology. As a result, there has been a significant increase in digital currency trading and investments within the country. [Joo et al \(2020\)](#) provided evidence that the first successful use of blockchain technology is cryptocurrency, and has been widely adopted for global money transfer. To sustain this lofty innovation, the Nigerian government has adopted a proactive approach to blockchain policy. The aim is to regulate and create a balanced and a modest environment that can fosters novelty while modifying dangers. The blockchain policy empowered the Central Bank of Nigeria (CBN) to introduced various measures to regulate the use and trading of digital currencies. [Zohar \(2015\)](#) confirmed that government regulation such as blockchain policy can fight against money laundering and maintain market stability. The desire to close the gap of financial transactions using the several online payments in the 21st century to boost financial performances has gained more attention. [Sadiq et al \(2023\)](#) indicated that the use of digital currencies had rapidly transformed businesses and does not require the Central Bank of Nigeria for monetary transfers with the blockchain policy in Nigeria. This underscores the importance of initiatives like Central Bank Digital Currencies (CBDCs) in addressing financial performance.

Although, the online payment system is showing relative growth of currency outside the formal banking system in Nigeria in recent times. This rise can be attributed to episodes of digital currency trading. Nevertheless, a reasonable populace of Nigerians is unaware. [Choudhury & Bagchi \(2016\)](#) accounted this significant factor of financial exclusion to lack of education. [Muhammad et al \(2022\)](#) further argued that vulnerable groups were also shown to be financial excluded in Nigeria. Such exclusion can possible intensifies the social and economic inequality of the citizenry which can contributes to poverty levels. The Nigerian government has taken some steps to improve financial performance and has recently announced the blockchain policy in April, 2023.

Moreover, the adoption of blockchain policy is seen as a solution to redesign the financial system to be more user-friendly and inclusive. [Zhang \(2024\)](#) found a positive and significant relationship between blockchain policy and financial market stability. Given that, digital currencies hold significant promise for addressing global poverty and promoting financial performance. Digital currency is viewed as a crucial tool for reducing poverty. [Ozili \(2023\)](#) indicated that financial services through digital currency have increased financial inclusion, and have improves citizens welfare by rising them above poverty. This financial innovation has the

potential to drive and accelerate financial market performance for sustainable growth. The commitment of digital currency is aimed to advance access to finance on a global scale for the status of financial performance in an economy (Fabian et al, 2022). However, Ajibola et al (2024) provided evidence of no significant impact of Bitcoin and BNB on Nigerian growth rate from 2014 to 2023.

Policy's introduction is aimed to significantly change the dynamics of a given environment, despite the Nigerian blockchain policy to enhance the digital currency trading and participants confidence, the market performance appeared unchanged. Christou et al (2017) confirmed a negative and significant effects on US stock market caused by policy increased. Policies can be fast and have significant effects on market performance, influencing investors sentiment to trading volumes and price changes. For instance, policy statements can lead to hasty fluctuations in market confidence, affecting the performance of digital currencies in the short-term. This can result in increased volatility, as traders and investors react to new information and alter their strategies consequently. Chokor & Alfieri (2021) observed fluctuation's behavior in terms of high volatility or illiquidity within the related markets.

The short-term impact of Nigerian blockchain policy on digital currency market performance is pertinent in the context of global financial markets, where digital currencies are gradually seen as both investment asset and a proposed channel of payment. Deviations in policy outlines can have wave effects, persuading not only locally but also global market dynamics. For Nigerian investors and market participants to assimilate these impacts, it is indispensable for steering the convolutions of the digital currency market that considered to be more appealing for buyers and sellers, (Belke & Betretta, 2020).

In light of the above, the study is motivated to examine how the recent blockchain policy in Nigeria affects the performance of Bitcoin, Ethereum, Tether, BNB, and XRP digital currency market in the short- term. The evaluation of the market responds to policy deviations; the study is driven to offer understandings how monitoring measures profiled performance based on investors behavior. Thus, awareness is significant for policymakers, investors, and other stakeholders who are searching to appreciate the wider consequences of blockchain policy and its impact on digital currency market. Hence, the study is aim to examine the short-term impact of Nigerian blockchain policy on selected digital currencies market performance.

Hence, the aim is to explore on how Nigerian blockchain policy affected digital currency market performance in the short-term. To achieve this objective, the study appealed to knowledge and posed a question; to what extent does Nigerian blockchain policy significantly impact on digital currency of Bitcoin, Ethereum, Tether, BNB, and XRP market performances in the short-term between May 3, 2023 and October 4, 2023? Hypothetically, Nigerian blockchain policy did not significantly impact on digital currency of Bitcoin, Ethereum, Tether, BNB, and XRP market performances in the short-term between May 3, 2023 and October 4, 2023. Findings from this study will be of help to Policymakers, to adjust and address any discrepancy that may arises from the central purpose. Investors will also find this study beneficial by moderating their decision making on investments of this kind. The findings will also be of benefit to scholars in this field of study since the body of literature will be enriched. More so, the general public will be enlightened and aware of the blockchain policy development initiated to protect digital platform investors from unnecessary attacks.

LITERATURE REVIEW

This section highlighted and briefly discussed the theoretical framework, concepts and empirical review.

From the theoretical view point, financial economics theories postulated that; policy statements can change the dynamics of market performance. Moreover, the psychological approach on investment decision making proclaimed that prices are guided by emotion rather than reason. The emphasizes is that, stock prices are believed to be influenced by the psychological mood of the investors.

Conceptual review

Following the context of blockchain policy on digital currency performance, the following concept were reviewed.

Bitcoin: Bitcoin refers to a decentralized digital currency that permits transaction without the banks. Blockchain technology guarantee transparency and security through the link ledger. Government policy statements such as blockchain policy can influence the bitcoin market performance. According to [Saito & Iwamura \(2019\)](#), investors would want to avoid Bitcoin currency for that their prices widely fluctuate in the short-term.

Ethereum: This is a built up of deployed smart application on a blockchain. It supports more complex transactions fostering a wide level of innovative approaches. Ethereum market performance can be affected by Blockchain policies. Strict regulations of blockchain policies can negatively impact Ethereum market performance. [Zohar \(2015\)](#) stated that blockchain policies can significantly improve the market performance of digital currencies.

Tether: Tether is relatively stable coin designed to maintain value using a blockchain to foster stable and efficient digital transaction. According to [Zohar \(2015\)](#), blockchain policies alongside financial oversight can significantly impact Tether market performance positively.

BNB: The term BNB, also refers to Binance coin is a digital currency issued by the authority of Binance for global financial exchanges. [Catalini & Gans \(2016\)](#) stated that blockchain policies can significantly impact BNB market performance by enhancing investors' assurance.

XRP: The concept XRP refers to digital asset formed by Ripple to help quicken low-cost money transfers universally. [Wang et al \(2020\)](#) found relative such as XRP to be highly volatile but increases volume of market performance after a spike.

The concepts highlighted above are link to Efficient Market Hypothesis (EMH) by [Fama, 1970](#). According [Fama \(1970\)](#), financial markets are informationally efficient. This goes on to say that asset prices reflect all accessible information at any given time. Based on this hypothesis, the theory empathized that price for digital currencies such as Bitcoin, Ethereum, Tether, BNB, and XRP should integrate all recognized information including news, market trends, and macroeconomic indicators, such as policies. However, not all with privileged information can make use of it to secure superior investment results, ([Malkiel, 1989](#)). [Malkiel \(2003\)](#) further argued that digital currency market habitually shows high volatility and speculative which can tie to changes of market performance and investors behavior based on the policies. Going by these debates, the blockchain policy recently introduced in Nigeria may significantly impact on

digital currency market performance. Although, the findings of this study will validate or invalidate the assumption on Nigerians trading patterns and the market performance thereof. This study will close the gap by forming insights for policymakers, and will provide empirical remedies for both investors, and scholars.

Empirical review

Some valuable literature of the study concept and context were empirically reviewed. Meanwhile, Aketch et al (2021) showed impact of blockchain technology on performance of financial markets in Kenya. The study applied 84 commercial banks for a structured questionnaire, the findings revealed a positive and significant relationship between blockchain technology policy and financial markets performance in Kenya.

Ronaghi (2023) contextualized the blockchain technology adoption for digital currency platform with the application of smart PLS software in Iran. The findings indicated that the use and facilitation were directly related to the user's digital currency.

Chokor & Alfieri (2021) identified the long and short-term impacts of regulation in the cryptocurrency markets in selected Euro countries between 2015 and 2019. The results showed that events increase the likelihood of regulatory acceptance with associated negative performance during the short-term.

Sharma (2023) studied the asymmetric impact of economic policy uncertainty on cryptocurrency market performance of Bitcoin, Ethereum, Tether, BNB, and Ripple between 2017 and 2022. Applying the no-linear autoregressive distributed lag (NADL), the results showed all the digital currencies significantly related to asymmetric economic policy except Tether in US, China, and India.

MATERIALS AND METHODOLOGY

This section highlighted the research design, materials and the method used for the study. The study adopted *ex-post fact* research design. An *ex-post facto* study allows the measurement of past events. The data were extracted from the crypto market database. Judging from the blockchain policy in Nigeria, the data were extracted from crypto database between May 3, 2023 and October 4, 2023, covering six months period making the data as current as possible. The compilation of the data commenced a month after the announcement in April, 2023. To obtain a reasonable period of time series data for regression analysis, the weekly-end figures were adopted. The population of the study comprised the entire listed digital currencies operating in the crypto market as at the period of the blockchain policy announcement in Nigeria. The sample size consists of selected 5 digital currencies such as Bitcoin, Ethereum, Tether, BNB, and XRP.

This study employed the generalized autoregressive conditional heteroskedasticity (GARCH) least squares analytical tool. The application of GARCH analysis is perceived necessary and is considered more suitable for a volatile study of this kind. Moreover, the GARCH analytical tool permits studies that are conducted without a dependent variable. Hence, this study did not capture a dependent variable. The study measured the independent variables which includes Bitcoin, Ethereum, Tether, BNB, and XRP market performance as against the blockchain policy announcement in Nigeria. Conversely, it is relatively impossible to measure policy into quantitative values, hence, it is difficult to be recognized it as a dependent variable. Whereas,

the announcement of the policy ought to influence the digital currency market performance either positively or negatively. Based on this, the study measured the short-term impact of Nigerian blockchain policy on Bitcoin, Ethereum, Tether, BNB, and XRP digital currency market performance. From the above statement, GARCH mathematical equation is given as follows: $\sigma^2_t = \omega + \alpha_1 \varepsilon^2_{t-1} + \beta_1 \sigma^2_{t-1}$. Whereas, the functional equation is given as follows: $NBP = f(\text{BIT}, \text{ETH}, \text{TET}, \text{BNB}, \text{XRP})$ where BIT = Bitcoin, ETH= Ethereum, TET= Tether, BNB= BNB, XRP= XRP.

DATA AND RESULTS PRESENTATION

This section presented data, results, analysis, test of hypothesis, and discussion of findings.

Data Presentation

The weekly data of Bitcoin, Ethereum, Tether, BNB, and XRP market performance in US Dollars from May 03, to October 04, 2023 covering 23 weeks is presented in table 1. See [Appendix 1](#).

Results and Analysis

Diagnostic tests

This sub-section provided diagnostic tests of the results.

Heteroksecedaticity test: The heteroksecedaticity test of likelihood of variance of the error term were estimated model to ensure there is heteroksecedaticity. The results of the model were reported in [Table 2](#).

Table 2: Heteroskedasticity Test: ARCH

| | | | |
|---------------|----------|---------------------|--------|
| F-statistic | 0.211057 | Prob. F(1,20) | 0.6509 |
| Obs*R-squared | 0.229739 | Prob. Chi-Square(1) | 0.6317 |

From the table, the observed R^2 value of 0.229739 with its corresponding probability of 0.6317 which was more than 5% implied that the model is free from heteroskedaticity.

Again, the structural stability of the model using plots of volatility of Bitcoin, Ethereum, Tether, BNB, and XRP market performance are shown on [Figures 1, 2, 3, and 4](#) respectively.

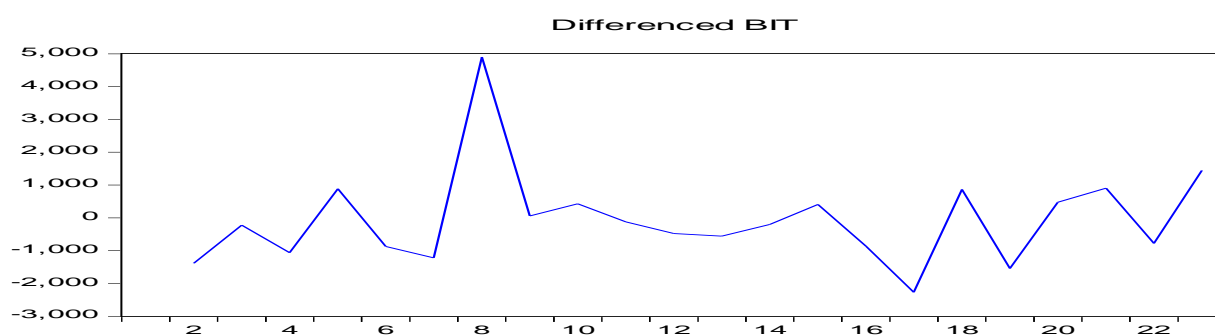


Figure 1: Differenced Bitcoin

The graph on [Figure 1](#), showed the negative performance of Bitcoin digital currency between

May 03, and October 04, 2023 covering 23 weeks depicting volatility level of market responding to Nigerian blockchain policy.

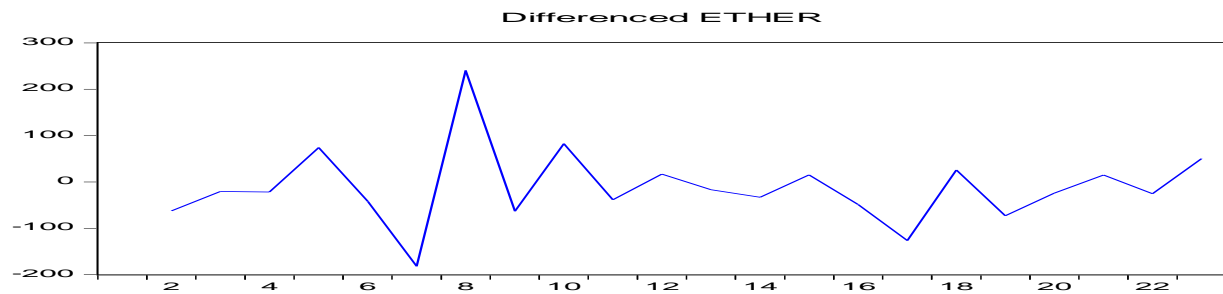


Figure 2: Differenced Ethereum

The graph on Figure 2, showed the positive performance at the closing trading of Ethereum digital currency between May 03, and October 04, 2023 covering 23 weeks also depicting volatility level of market responding to Nigerian blockchain policy.

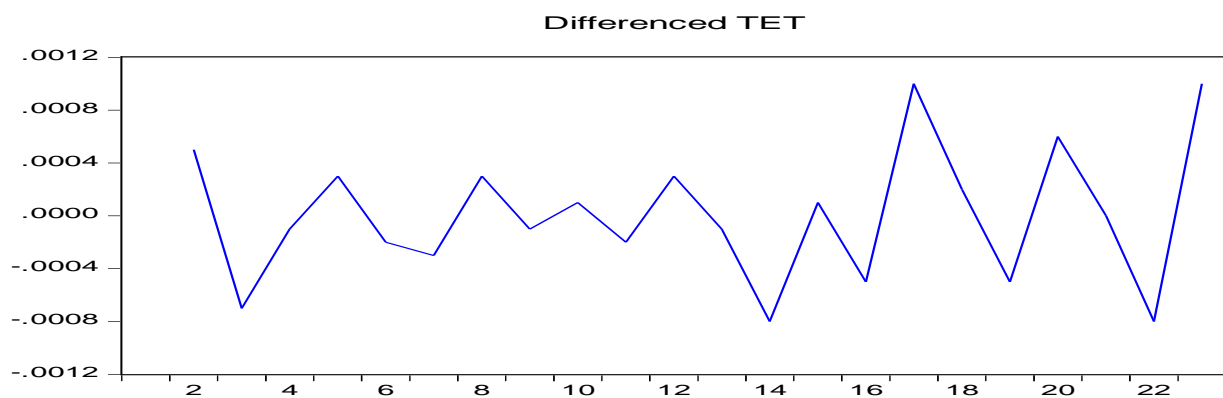


Figure 3: Differenced Tether

The graph on Figure 3, showed the positive performance of Tether digital currency between May 03, and October 04, 2023 covering 23 weeks also depicting volatility level of market responding to Nigerian blockchain policy.

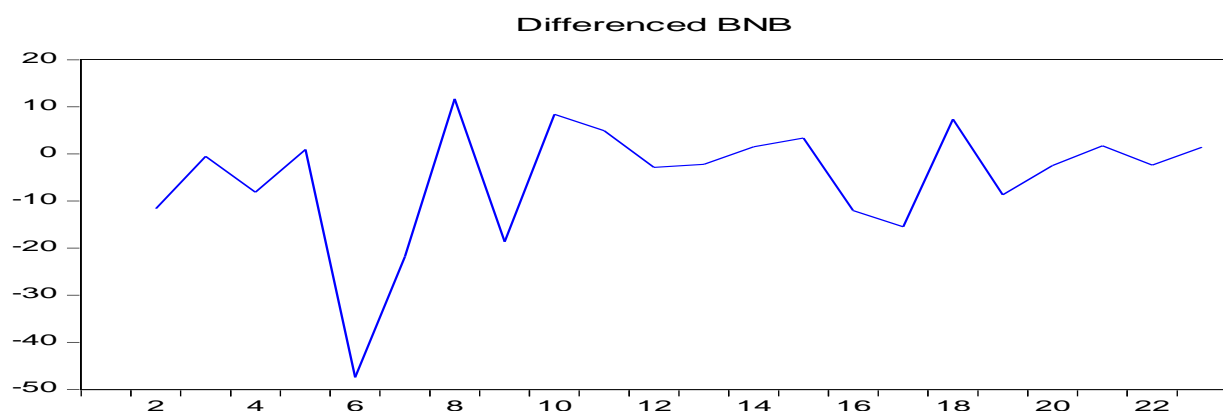


Figure 4: Differenced BNB

The graph on Figure 4, showed the negative performance of BNB digital currency between May 03, and October 04, 2023 covering 23 weeks depicting volatility level of market responding to Nigerian blockchain policy.

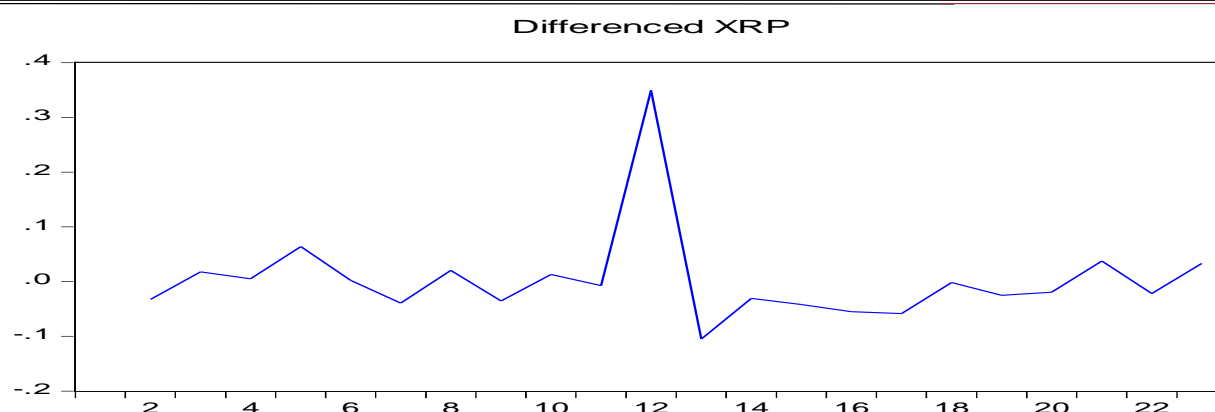


Figure 5: Differenced XRP

The graph on [Figure 5](#), showed the negative performance of XRP digital currency between May 03, and October 04, 2023 covering 23 weeks depicting volatility level of market responding to Nigerian blockchain policy.

This sub-section provided results of the generalized autoregressive conditional heteroskedasticity (GARCH) least squares in [Table 3](#). The table clearly showed the results extracted from the E-views for short-term analysis of generalized autoregressive conditional heteroskedasticity (GARCH) least squares after taking revealing the volatility in the figures above.

Table 3: GRACH Least squares results

Dependent Variable: BIT

Method: Least Squares

Date: 10/26/23 Time: 10:31

Sample: 1 23

Included observations: 23

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | -291405.5 | 469112.0 | -0.621185 | 0.5423 |
| BNB | -31.16910 | 7.210681 | -4.322630 | 0.0004 |
| ETHER | 17.73696 | 2.313872 | 7.665491 | 0.0000 |
| TET | 296401.0 | 469278.4 | 0.631610 | 0.5356 |
| XRP | -1557.724 | 2236.817 | -0.696402 | 0.4951 |
| R-squared | 0.801481 | Mean dependent var | | 27989.14 |
| Adjusted R-squared | 0.757366 | S.D. dependent var | | 1662.517 |
| S.E. of regression | 818.9207 | Akaike info criterion | | 16.44351 |
| Sum squared resid | 12071361 | Schwarz criterion | | 16.69036 |
| Log likelihood | -184.1004 | Hannan-Quinn criter. | | 16.50559 |
| F-statistic | 18.16788 | Durbin-Watson stat | | 0.973046 |
| Prob(F-statistic) | 0.000004 | | | |

Source: Extracted from E-views 10.0 output

Notel: The results of the constant variable in [Table 3](#) respresented Bitcoin, since GARCH analysis can be conducted in absence of a dependent variable, hence the results is verified.

Results analysis

In Table 3, the R^2 is 0.8014 representing 80.14% with a corresponding adjusted of 0.7573 (75.73%) which indicated that the model of study is fit and good. This showed that about 19.86% to 24.27% represented variables not capture or the error term.

Again, the Durbin-Watson statistics of 0.973046 showed that the model is not free from autocorrelation since the value is not within range of 2 according to the rule of thumb was based on the variables used are highly volatile in nature.

Also, the F-statistic of 18.16788 with a corresponding significant probability value of 0.000004 showed a join significance of the data used.

Furthermore, the constant variable which represented BIT (Bitcoin) which has been explained on note 1 in Table 3, had a negative coefficient of (-291405) with an insignificant probability value of 0.5423. The variable, XRP had a negative coefficient of (-15557.724) with an insignificant probability value of 0.4951. While, Tether had a positive coefficient of (296401) though with an insignificant probability value of 0.5356. But BNB had a negative coefficient of (-31.16910) with a significant probability value of 0.0004. However, Ethereum had a positive coefficient of (17.73696) with a significant probability value of 0.0000.

The above results were been subjected for Hypotheses test and analysis for critical discussions of the findings

Test of Hypotheses

Ho₁: Nigerian blockchain policy did not significantly impact on Bitcoin digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Ha₁: Nigerian blockchain policy significantly impact Bitcoin digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Judging from the analysis, Ho was accepted implying that Bitcoin digital currency market performance did not significantly respond to Nigerian blockchain policy in the short-term May 3, 2023 to October 4, 2023.

Ho₂: Nigerian blockchain policy did not significantly impact on Ethereum digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Ha₂: Nigerian blockchain policy significantly impact on Ethereum digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Judging from the analysis, Ho was rejected implying that Ethereum digital currency market performance significantly responds to Nigerian blockchain policy in the short-term May 3, 2023 to October 4, 2023.

Ho₃: Nigerian blockchain policy did not significantly impact on Tether digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Ha₃: Nigerian blockchain policy significantly impact on Tether digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Judging from the analysis, Ho was accepted implying that Tether digital currency market performance did not significantly respond to Nigerian blockchain policy in the short-term May 3, 2023 to October 4, 2023.

Ho4: Nigerian blockchain policy did not significantly impact on BNB digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Ha4: Nigerian blockchain policy significantly impact on BNB digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Judging from the analysis, Ho was rejected implying that BNB digital currency market performance significantly responds to Nigerian blockchain policy in the short-term May 3, 2023 to October 4, 2023.

Ho5: Nigerian blockchain policy did not significantly impact on XRP digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Ha5: Nigerian blockchain policy significantly impact on XRP digital currency market performance in the short-term between May 3, 2023 and October 4, 2023.

Judging from the analysis, Ho was accepted implying that XRP digital currency market performance did not significantly respond to Nigerian blockchain policy in the short-term May 3, 2023 to October 4, 2023.

Discussion of findings

Based on the hypothesis testing and analysis, Bitcoin responded negatively but not significantly to Nigerian blockchain policy in the short-term between May 3, 2023 and October 4, 2023. Also, XRP responded negatively and not significantly to Nigerian blockchain policy in the short-term between May 3, 2023 and October 4, 2023. Tether responded positively but not significantly to Nigerian blockchain policy in the short-term between May 3, 2023 and October 4, 2023. BNB responded negatively and significantly to Nigerian blockchain policy in the short-term between May 3, 2023 and October 4, 2023. However, Ethereum responded positively and significantly to Nigerian blockchain policy in the short-term between May 3, 2023 and October 4, 2023. This finding confirmed the study of [Zhang \(2024\)](#) that revealed a positive and significant relationships.

These findings showed that, Nigerian blockchain policy impacted negatively on Bitcoin, XRP, and BNB digital currencies market performance within the short-term. This finding implied that, Nigerian blockchain policy impacted negatively on Bitcoin, XRP, and BNB investors in the short-term between May 3, 2023 and October 4, 2023. Although, Bitcoin and XRP negative impact were not significant in nature. However, Nigerian blockchain policy impacted positively on Tether and Ethereum digital currencies market performance in the short-term. This finding implied that Nigerian blockchain policy impacted positively on Tether as well as Ethereum investors between May 3, 2023 and October 4, 2023. Although, Tether positive impact was not significant.

It is glaring from the inference statistics, that Ethereum and BNB were the only significant digital currencies that constitute variables of study, as their activities needs urgent attention of both policymakers and investors. These findings were also highlighted in [Chokor & Alfieri](#)

(2021) of increasing likelihood of regulatory acceptance with associated negative performance during the short-term. Moreso, these findings confirmed results of Aketch et al (2021) of relationship existence between blockchain and digital currency market performances. Although there is a divergence of results found in Sharma (2023) that applied no-linear autoregressive distributed lag (NADL) found a positive and significant on Bitcoin, Ethereum, Tether, BNB and XRP pre-blockchain policy in US, China, and India from 2017 to 2022, while in India indicated negative trend.

CONCLUSION

In conclusion, the study indicated that Nigerian blockchain policies from May 3, 2023, to October 4, 2023, had a mixed impact on the short-term performance of selected digital currencies. From the findings, Bitcoin, XRP, and BNB experienced negative impacts, with BNB's response being significant. In departure, Tether and Ethereum showed positive impacts, with Ethereum's response being significant. These results suggested that while some digital currencies benefited from the new policies, others faced challenges, highlighting the need for targeted policy adjustments and investor strategies. The findings underscore the importance of understanding the policy effects of blockchain regulations on different cryptocurrencies and call for further research to better inform both policymakers and investors. It has also broadened the general public on the awareness of blockchain policy, and the need to embrace and participate actively.

RECOMMENDATIONS

Based on the findings of the analysis, several recommendations can be made to address the observed impacts of Nigerian blockchain policy on selected digital currencies.

1. Policy Adjustments for Digital Currencies: Given that BNB experienced a significant negative impact and Ethereum a significant positive impact, policymakers should consider revising the blockchain policy to better accommodate the diverse needs of different digital currencies. Specific provisions should be introduced to mitigate adverse effects on digital currencies like BNB while supporting the growth of others like Ethereum. This could involve tailoring regulations to address the unique characteristics and market dynamics of each digital asset.
2. Investor Guidance and Protection: The negative impact on Bitcoin, XRP, and BNB suggests a need for improved investor guidance and protection in the face of regulatory changes. Authorities should provide a clear and comprehensive information about how new policies affect various digital currencies and their market performance. This could involve creating educational resources and advisory services to help investors make informed decisions and navigate the evolving regulatory landscape.
3. Support for Positive Trends: The positive but not significant impact on Tether and the significant positive impact on Ethereum indicated that, certain digital currencies benefited from current regulations. To capitalize on these positive trends, policymakers should consider further supporting of these assets through incentives or favorable regulatory conditions. This could help foster innovation and investment in these digital currencies, potentially leading to broader positive impacts on the market.
4. Constant Monitoring and Evaluation: Given the varying effects of the Nigerian blockchain

policy on different digital currencies, it is crucial to implement a robust system for ongoing monitoring and evaluation. Regular assessments should be conducted to gauge the continued impact of the policy on various digital currencies and make necessary adjustments based on emerging trends and market responses.

5. Stakeholder Engagement: Engaging with stakeholders, including digital currency developers, investors, and industry experts, are essential for creating effective and balanced blockchain policies. Establishing forums or advisory panels where stakeholders can provide input and feedback on regulatory changes will ensure that policies are well-informed and address the concerns of all parties involved. This collaborative approach can help mitigate negative impacts and enhance the overall effectiveness of blockchain regulation.

By adopting these recommendations, policymakers can better address the diverse impacts of blockchain policies on digital currencies and form a more balanced and supportive regulatory market.

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Appendix 1

Table 1: Weekly data of Bitcoin, Ethereum, Tether, BNB, and XRP market performance in US Dollars from May 03, to October 04, 2023 covering 23 weeks.

| DATE | BITCOIN | ETHEREUM | TETHER | BNB | XRP |
|--------------|-------------|------------|----------|----------|----------|
| May 03, 2023 | \$29,006.31 | \$1,904.65 | \$1.0003 | \$326.21 | \$0.4635 |
| May 10, 2023 | \$27,621.76 | \$1,842.40 | \$1.0008 | \$314.58 | \$0.4309 |
| May 17, 2023 | \$27,398.80 | \$1,821.86 | \$1.0001 | \$314.08 | \$0.4486 |
| May 24, 2023 | \$26,334.82 | \$1,800.10 | \$1.0000 | \$305.93 | \$0.4536 |
| May 31, 2023 | \$27,219.66 | \$1,874.13 | \$1.0003 | \$306.87 | \$0.5174 |
| Jun 07, 2023 | \$26,346.00 | \$1,832.40 | \$1.0001 | \$259.39 | \$0.5196 |
| Jun 14, 2023 | \$25,124.68 | \$1,650.52 | \$0.9998 | \$237.57 | \$0.4802 |
| Jun 21, 2023 | \$30,027.30 | \$1,891.01 | \$1.0001 | \$249.29 | \$0.5007 |
| Jun 28, 2023 | \$30,086.25 | \$1,827.97 | \$1.0000 | \$230.65 | \$0.4652 |
| Jul 05, 2023 | \$30,514.17 | \$1,910.59 | \$1.0001 | \$239.08 | \$0.4783 |
| Jul 12, 2023 | \$30,391.65 | \$1,872.11 | \$0.9999 | \$244.02 | \$0.4711 |
| Jul 19, 2023 | \$29,913.92 | \$1,889.01 | \$1.0002 | \$241.16 | \$0.8207 |
| Jul 26, 2023 | \$29,354.97 | \$1,872.16 | \$1.0001 | \$238.96 | \$0.7158 |
| Aug 02, 2023 | \$29,151.96 | \$1,839.09 | \$0.9993 | \$240.49 | \$0.6852 |
| Aug 09, 2023 | \$29,561.49 | \$1,854.30 | \$0.9994 | \$243.89 | \$0.6434 |
| Aug 16, 2023 | \$28,701.78 | \$1,805.66 | \$0.9989 | \$231.87 | \$0.5883 |
| Aug 23, 2023 | \$26,431.64 | \$1,679.27 | \$0.9999 | \$216.40 | \$0.5299 |
| Aug 30, 2023 | \$27,297.27 | \$1,705.11 | \$1.0001 | \$223.80 | \$0.5282 |
| Sep 06, 2023 | \$25,753.24 | \$1,632.25 | \$0.9996 | \$215.13 | \$0.5032 |
| Sep 13, 2023 | \$26,228.32 | \$1,607.99 | \$1.0002 | \$212.64 | \$0.4838 |
| Sep 20, 2023 | \$27,132.01 | \$1,622.89 | \$1.0002 | \$214.36 | \$0.5214 |
| Sep 27, 2023 | \$26,352.72 | \$1,597.49 | \$0.9994 | \$211.99 | \$0.4996 |
| Oct 04, 2023 | \$27,799.39 | \$1,647.84 | \$1.0004 | \$213.41 | \$0.5329 |

Source: Extracted from crypto market database, and compiled by Authors