The Effect of Digital Currency on Monetary Policy in Tanzania: An Empirical Investigation

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

This study investigates the effects of digital currency on monetary policy in Tanzania., The main variables of the study included BTC and MBT as the independent variables and M3 as a dependent variable. The quantitative methodology used involved the applications of econometrics analysis as the estimation methods. The quarterly time series data (2014q1 – 2021q4) used were obtained from both the Bank of Tanzania, the Tanzania National Bureau of Statistics and the online data from www.blockchain.com. The main variables of the study included BTC and MBT as the independent variables and M3 as a dependent variable. The Vector Error Correction Model (VECM) was used to estimate the empirical regression model, while STATA software 14 was used to analyse the data. The results indicate of the VECM indicated that there was a significant negative relationship between BTC and M3 variables on the one the one hand, and a significant positive relationship between MBT and M3 variables in Tanzania. The study concluded that there was a significant effect of the digital currency on monetary policy in the country. The study recommended that the government should education the people on how the digital currency operates, it should strengthen monetary policy practices, and try to learn from others countries that use the digital currency. This would help the country to officially allow or reject the use of digital currency in the country.

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1. INTRODUCTION

Before 1900s many countries in the world used barter trade as the major means of exchange - which involves the exchange of goods-by-goods with some intrinsic value for money. In order for those goods to function as money the goods had to be widely acceptable, which means that all the people within the society had to agree on the payment of goods-by-goods or goods-by-service [1]. Therefore, barter trade became the major growing tool of exchange in international and domestic market and it controlled the monetary policies of the country [2]. Later on, the world economy evolved into the use of gold as money and that economic system was said to be called a Gold Standard Economy [3]. Gold standard economy involved the use of gold as a standard value for money of a country and it controlled the monetary policy [4]. Countries were committed to fix the prices of their domestic currencies in terms of specific amount of gold. Gold standard economy faced different problem such as not being able to carry golds in big sum because of the heavy weight they had. These problems resulted to the introduction of coin money. At the beginning these coins had faced a serious problem of inflation which made them losing their value [4].

Paper money was introduced during the bank revolution. The paper money was the currency which was issued by the government decree (fiat money). This money was called fiat or paper money because it was not convertible into precious metal anymore and had no intrinsic value. The paper money functioned as a medium of exchange used by the merchants in the process of buying goods and services and it brought the major changes on how monetary policy operates [4]. Paper money became a cornerstone of the modern economy since it influenced the emergence of physical economy which involves the exchange of goods-by-money [1]. Physical economy was the economy that existed before the revolution of Information and Communication Technology (ICT) during nineteenth century [5]. During this time people come together to trade in a certain place called market were people meet for making different transaction in order to maximize utility and profits. As time went on there was an emergence of post and online economy which involve transaction through the use of internet known as Electronic Economy (e-economy) which was facilitated by the development of ICT including development of computer, development of telecommunication, and development of new advanced payment system. The development of ICT resulted to the introduction of Electronic Fund Transfer System (EFTS), in which people were able to pay through the use of debt cards, credit cards and computers which allow people to purchase things and make payment by booking amount from the person account [6].

In 1993 there was a huge development of internet which made electronic economy to expand fast worldwide. This expansion affected the way business began to be conducted. Most of the business were conducted online and the payments were made online this paved a way for the development of digital economy [7]. During 20th century transactions over the internet significantly make money circulation process easy since it allowed people to make different transactions while staying at their houses. As time went on the volume on the use of credit cards and noncash transaction increased. Digital economy emerged in late 20th until the early 21st century and it refers to the process of digitizing the economy. Digitization refers to the process of changing information from analogue form to digital form [7]. In the context of money, this refers to creating a digital representation of money, or moving it to digital form. Digital economy involves the use of digital currency which includes mobile transaction and the use of cryptocurrency. Mobile transactions are transaction made through the use of mobile devices while cryptocurrencies are the currencies which involve transaction through the use of internet without physical contact among people. Mobile transaction was accepted by almost all of the countries in the world and is mostly preferred by most of East African countries due to its safety and easy way in making transactions. This is different to cryptocurrency whereby most of the countries are facing difficult condition in acceptance on the use of these currencies. The acceptance on the use of cryptocurrencies by some of the countries has been very challenging due to different reason such as price volatility, black market, tax evasion and terrorism. Countries such as Sweden, China, Ukraine, South Africa and Nigeria have accepted the use of digital currency while countries such as Russian, and other LDCs countries are in the contravention on the use of these currencies.

Tanzania is still in the debate of either accepting or rejecting the use of cryptocurrency. On 14th June 2021, the Tanzanian's President, her Excellence Samia Suluhu Hassan, during the opening of new Bank of Tanzania regional branch in Mwanza City, told the financial chief to prepare for cryptocurrency adoption, saying the age of digital currency and blockchain is dawning as she urged her country to pave the way for these changes [8]. Based on the above statement from the president, Prof. Florens Luoga, the Governor of the Bank of Tanzania in the Financial Institutions' Conference on the Economic Recovery Post COVID-19 held on 25th and 26th of November 2021, he said, "to ensure that our country is not left behind on the adoption of digital currencies, the Bank of Tanzania has already begun preparation to have its own Central Bank Digital Currency."

Despite of the progress made in managing macroeconomic policy, the expectations on the existing digital environment to support a stable monetary policy performance and attention are still low due to lack of studies in this area. Specifically, the fear is on what will be the effects of cryptocurrencies in the monetary policy performance in Tanzania. In light of this, there was an urgent need to know the effects of digital currency on monetary policy by empirically testing the connection of financial dualism (cryptocurrency and mobile money) in the Tanzanian economy. Therefore, this study empirically examined the effects of digital currency on monetary policy in Tanzania. Specifically, the digital currency is represented by the Bitcoin and Mobile transaction which form the financial dualism on one hand, and the monetary policy is represented by the extended money supply on the other hand. Therefore, this study, empirically estimated the effects of Bitcoin and Mobile transaction on extended money supply in Tanzania. The hypothesis that was tested stated that, there is no significant relationship between bitcoin, mobile transaction and extended money supply in Tanzania.

This paper will be of profound interest to the financial economists, policy makers, central banks, researchers, as well as people who are involved in the digital currency transactions.

2. LITERATURE REVIEW

Digital currency, on the other hand, is a currency that shows its value attribute in the digital form and corresponds to the commodity currency. It generally refers to all currencies that exist in digital form and can be used as means of payment [9]. It is a general term for electronic money. In Table 1 below shows some of the characteristics of digital currency as compared to other forms of money.

Many digital currencies have been developed to date. This study considered a form of digital currency which at least near similar to fiat currency. This digital currency can take two forms, electronic money and crypto currency. Electronic Money (the Official Digital Currency) is official digital money. Electronic money is a digitalized form of fiat money, equivalent to fiat money. For example, electronic money stored in the form of magnetic cards, central bank digital money, mobile money such as (M-PESA, Tigo PESA and Hallo PESA, a few to mention in Tanzania). On the other hand, crypto currency is unofficial digital currency which sometimes it is referred to as virtual currency. Virtual crypto currency is a digital currency issued by a non-statutory authority. It is generally used as a means of payment in a specific virtual space on the internet, but it does not have the status and value of legal tender [10]. It includes such cryptocurrencies as Bitcoin and central bank digital currency. Table 2 below provides a comparative analysis of cryptocurrencies and other forms of money.

Table 1. Characteristics of digital currency, fiat currency, checks and debit cards

Characteristics	Digital money	Currency	Check	Debit card
Legal tender	No	Yes	No	No
Acceptability	?	Widespread	Restricted	Restricted
Marginal cost per transaction	Low	Medium	High	Medium
Payment finality face-to-face transaction	Yes	Yes	No	No
Payment finality non-face-to-face transaction	Yes	No	No	No
User-anonymity	Yes	Yes	No	No

Source: https://www.blockchain.com

Table 2. A comparative analysis of crypto currency, money and assets

Characteristic	Fiat Money	Assets	Financial Assets	Cryptocurrency
Store of value	Yes	Yes	Yes	Her
Medium of exchange	Yes	No	No	Partially
Unit of account	Yes	No	No	No
Property right	No	Yes	Yes	Possible
Economic benefits from ownership	Possible	Yes	Yes	Possible
Is a liability from a third-party	Yes	No	Yes	No
Information transfer and storage function	No	No	No	Yes

Source: https://www.blockchain.com

Cryptocurrency has one big feature that distinguish it from fiat money and other financial assets. That they have a very unique function for processing information that is through the use of blockchain technology in which fiat and other financial assets doesn't use it [10].

2.1 Theoretical Literature Review

This study was guided by two theoretical learning which are Money Supply Theory and Financial Dualism Theory.

2.1.1 Money supply theory

The Money Supply Theory is based on the controlling of the amount of money in circulation. The two most important Money supply theories that were considered in this study include the Quantity Theory of Money and the Friedman's Modern Quantity Theory of Money. The Quantity Theory of Money stated by Irvin Fisher (1926) shows that, the main determinant of the quantity of money in the economy/circulation is the price level. Any changes in in quantity of money leads to the change in price at the proportional level. According to Fisher, as the quantity of money in the economy increase leads to the increase in price level, other things remaining constant. Fisher explained his theory in terms of his equation of exchange as shown in equation 1 below.

$$MV=PT \dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where; M=the quantity of money in circulation, V = The velocity of circulation of money in the economy, P = average price level, T = the total number of transactions.

According to this theory, for monetary policy of a country to function well it must target the inflation rate (the general price level within the country) in order to control the quantity of money in the economy.

On the other hand, the Friedman's Modern Quantity Theory of Money which was developed by Milton Friedman in 1956 is based on the general theory of asset demand which state that investors can hold their wealth in the form of money, bonds, equity, shares and commodities. Friedman argued that money is positively related to permanent income than current income. In long-run average this may result to the reduction of a lot of fluctuations in the economy. Friedman's theory implies that the demand for money balance increase when permanent income increase and decrease when expected return on bonds, stock, or goods increases versus the expected returns on money, which includes both the interest paid on deposits and the services banks provide to depositors. The Friedman's theory is mostly preferred to be used in this study because it has been proven to be more superior, accounting for equities, bonds and goods. This theory allows return for money to vary and to increase above zero, making it more realistic. The theory helps to know and understand how the digital currency affects the monetary policy in Tanzania through assessing the price of Bitcoin.

2.1.2 Financial dualism theory

The Financial Dualism Theory (FDT) as espoused by Myint [11], takes into account the coexistence of organized and unorganized money market in an economy. The organized money market involves the market for real money, for example, fiat money and electronic money which are regulated by the central system. On the other hand, the unorganized money market involves the cryptocurrency market, for example Bitcoin which is the unregulated one. The idea behind this theory is

that monetary policy is generated by several common sensitivities factors in the money market. The central idea of Financial Dualism Theory is that both regulatory and non-regulatory money market systematic factor affects the performance of the monetary policy. The theory in itself provides two relevant financial variables that include organized (Mobile money) and unorganized money market (Bitcoin).

2.2 Empirical Literature Review

Chen and Pandey [12] conducted a study on Bitcoin to determine whether there is a match between roles of currency and Bitcoin and whether it is possible to invest in Bitcoin as safely assets. The connection between Bitcoin and the major currencies of the world was also examined. Results of their study showed that the major currencies of the world were connected significantly to themselves, but the connection between these currencies and Bitcoin was insignificant. In addition, they found that there is insignificant correlation between the benefit of investment in gold and the benefit of investment in Bitcoin. Because the behavior of Bitcoin is different from the behavior of both of the major currencies of the world and the gold, researchers claimed that Bitcoin can be less used as useful currency. Rahman [13] on his study of deflationary policy, he examined the implication of digital and fiat money completion on optimal monetary policy. On his study, he found that there was no influence of digital currency on monetary policy. Under socially adequate allotment since there was no equilibrium between monetary policy and private arrangement of digital currency which resulted to poor allocation efficiency. Also, he found that a place restriction on the available supply of digital currency it is possible only if the upper bound of digital currency circulation is equal to the rate of time preference. Some degree of government intervention was required to curb the profit maximization.

Berentsen [14] conducted a study of how a wide use of digital currency would affect monetary policy. He said that there are rumors that central bank will lose control on monetary aggregates and even worse that digital currency will affect foreign exchange rates, distribute money supply and encourage over all financial crisis [15]. He used different instruments of payment such as credit cards and network money. And also, he based much on the assessing the effect of digital currency on demand for central bank money

deposits transaction, effect of demand for reserve, monetary control and monetary transaction mechanism. He found that the smart cards designed for use instead of the central bank currency they replaced the entire stock of central bank currency and as a result affected the demand for transaction deposits. Also, in the second section he argued that central bank plays a big role in the controlling of monetary policy but the substitution of central bank currency with digital currency led to some problems on the market control for bank reserve, which enhanced low demand for transaction deposits and hence it resulted to affect monetary aggregates and function of monetary policy transaction.

Bordo & Levin [16] conducted their study on how a Central Bank Digital Currency (CBDC) can transform all aspects of the monetary system and facilitate the systematic and transparent conduct of monetary policy. Basing on different literature in monetary economics, they found a compelling rationale for establishing a CBDC that serves as a stable unit of account, a practically costless medium of exchange, and a secure store of value. In particular, also they comment that CBDC should be universally accessible and interest-bearing, and the central bank should adjust its interest rate to foster true price stability.

According to Bordo [16] on his working paper on the study how of Central Bank Digital Currency (CBDC) can influence monetary policy and the rest of the world. He states that the history of transformations in monetary systems suggests that technological change in money and finance is inevitable, driven by the financial incentives of a market economy. Government always had a key role in the provision of currency (outside money) which is a public good. It has also regulated inside money provided by the private banking system. This held for fiduciary money and will likely hold for digital money. He found that CBDC could make monetary policy more efficient if interest is paid on it, and that rate is used as a policy instrument, the issues of the Effective Lower Bound (ELB) could be eliminated. Moreover, varying the interest rate on CBDC would provide true macro and price stability. Finally, CBDC would have a great impact on the global economy by facilitating international payments. It may also, at the end, transform the international monetary system.

Also, the study conducted by Katusiime [17] on the impact of mobile money transaction on monetary policy in Uganda through the use of

ARDL method, found that there is a positive effect between mobile money transaction and monetary policy. On the other hand, the study conducted by GSMA (2019) on the effects of mobile money transaction on monetary policy in Sub-Saharan African Countries, found that mobile money transaction affect monetary policy in a positive way since it enables more effective monetary policy by transferring formal financial system and enhancing financial depth.

Different studies on digital currency have been conducted in different countries. However, a few of studies concentrated specifically on the effects of digital currency on the monetary system but, however, they didn't use the econometrics methods. Therefore, this study fills this methodology gap by studying the effect of digital currency on monetary policy in Tanzania by using quarterly time series data analyzed and estimated trough Vector Error Correction Model.

3. METHODOLOGY

3.1 Research Type and Design

The design for this study was attached on country specific, analytical, and premise on different macro events. The study based on quantitative research type/approach employing the ex-post facto (past occurrence for present) research design that fitted the study. The ex-post facto research design was suitable for this study because it involved empirical investigation (quasi-experiment). The quasi-experimental attempted to expose the effect of digital currency on monetary policy in the Tanzanian economy ceteris paribus. This study adds knowledge in its design and the econometric/analytical approach accomplished.

3.2 The Conceptual Framework

Fig. 1 below shows the conceptual framework of the study. Specifically, it shows how the digital currency influences the monetary policy of the country. Digital currency can affect monetary policy through Bitcoin and Mobile money.

Fig. 1 below shows how the organized (centralized) and unorganized (decentralized) money market operates together to influence monetary policy. The framework was guided from the central idea of Financial Dualism Theory that both organized and unorganized money market systematic affects the performance of the monetary policy. The centralized money market involves mobile money which eventually affects the monetary policy through mobile transactions. On the other hand, the decentralized money market involves cryptocurrency which also affects the monetary policy through Bitcoin transactions.
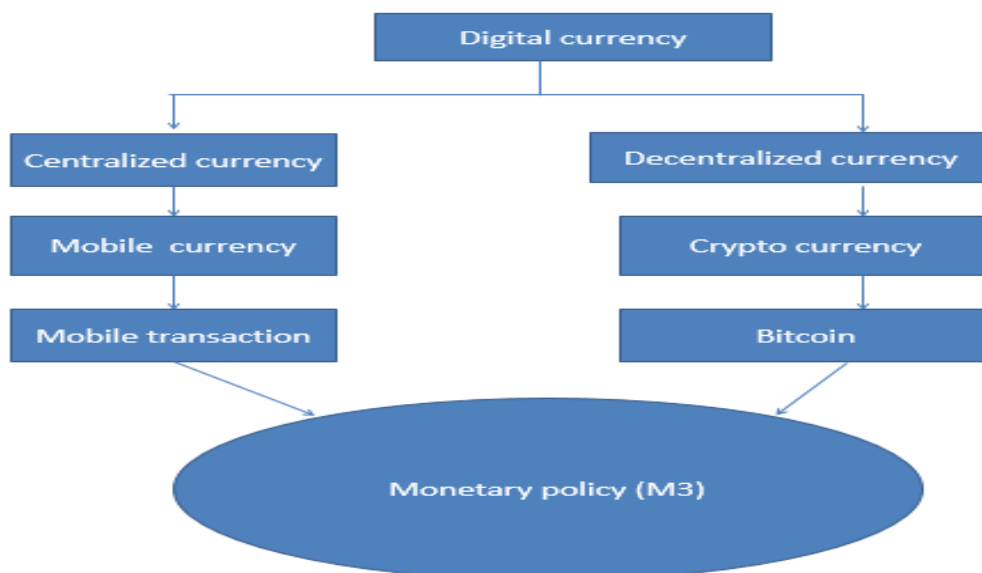

Fig. 1. Conceptual framework of the study

3.3 Empirical Regression Model Specification

This study was guided by two theoretical leanings which are Money Supply and Financial Dualism Theories. The Money Supply Theory involve the use of three aggregates of money supply which are narrow money supply (M1), broad money supply (M2), and extended money supply (M3) as a measure of the amount of money in the economy. Since these theories are based on prices, they helped the researcher to determining how the digital currency (Bitcoin and Mobile money transaction) price affects monetary policy in terms of extended money supply (M3).

On the other hand, the Financial Dualism Theory takes into account the coexistence of organized (Mobile money transaction) and unorganized (Bitcoin) money markets. The idea behind this theory is that monetary policy is generated by several common sensitivities factors in the money market.

Therefore, the regression model involves all the variables used in analyzing the relationship between dependent variable (extended money supply, M3) and independent variables (Bitcoin and Mobile money transaction). This relationship is presented mathematically in equation 2 below.

$$M3 = f(BTC, MBT)\dots \quad (2)$$

Where;

M3 = is extended money supply in terms of percentage, which is a measure of money supply used as a proxy for monetary policy in this study. BTC = is the price of Bitcoin in terms of US\$, which is a measure of cryptocurrency used as a proxy of uncontrolled digital currency in this study. MBT = is Mobile money transactions in terms of Tanzania Shillings (TZS), which is a measure of electronic currency used as a proxy of controlled digital currency in this study.

For the purpose of specifying the econometrics model, the error term μ and other controlling variables were added to equation 1 above [18]. The purpose of the error term is to take care of all unobserved variables which are not included in the model above, all observed variables excluded from the model, and all measurement errors that might be there in formulating the model. The controlling variables included inflation rate (INF) in terms of percentage, exchange rate (EXC) in terms of TZS/US\$, and interest rate (INT) in terms of percentage. This process allowed for quasi-experimental of measuring the exact effect of digital currency on monetary policy [18]. This yielded the empirical regression model equation 3 below.

$$M3_t = \beta_0 + \beta_1 \ln BTC_t + \beta_2 \ln MBT_t + \beta_3 NFL_t + \beta_4 \ln EXC_t + \beta_5 INT_t + \mu_t \dots \quad (3)$$

$\beta 0$ = is a constant parameter which measures the value of M3 when all the independent variables in the model are equal to zero. $\beta 1, \dots, \beta 5$ = are coefficient model parameters which measures the effect of a respective variable on the dependent variable. t = expresses time series dimension (2014q1 to 2021q4).

It is worth noting that, the data on BTC, MBT, and EXC were transformed into natural logarithms (ln) in order to remove outliers. Transformation of the data into natural logarithms helped the researcher to interpret each coefficient as elasticity, to adjust for each scale effects and decrease variances within the data collection. The study obtained an explicit empirical model that was ease to estimate (equation 2 above).

3.4 Model Estimation Method

An empirical regression model above (equation 2) was estimated through Vector Error Correction method. Vector Error Correction Model (VECM), is a time series regression model based on the assumption that two or more time series are in equilibrium to determine both short-term and long-term behavior (Gujarati, 2004). The purpose of the error correction model is to show the rate of adjustment from short-term equilibrium to long-term equilibrium. The VECM was conducted because it was found that there is more than one cointegrated equation to show a short-run and a long-run relationship between the variables. Furthermore, the study conducted VECM to estimate and analyze the short-run and long-run relationship of the model.

3.5 Data Types and Sources

The data sets for empirical estimation in this study had two major characteristics. Firstly, secondary data, and secondly, quarterly time series data. In terms of sources, the study drew data from the Bank of Tanzania, data such as inflation and mobile transaction data. Another source was the World Bank data such as

exchange rate data, and lastly, is the National Bureau Statistics data such as extended money supply and interest rate data. On the other hand, digital currency data were sourced from www.blockchain.com/statistics.

3.6 Data Analysis

Inferences in this study was based on the outcome of the estimation of regression model which based on VECM method on running the regression analysis. Also, the conclusions of the study were drawn basing on the objectives of the study. The choice level of significance for all tests was based on 0.05 or 5% significant level. All estimations and analysis of the data were done using the STATA version 14 computer software. The analysis was done in three stages involving the pre-estimation analysis, estimation analysis, and post-estimation analysis [19-22].

4. RESULTS AND DISCUSSION

The Normality test showed that M3, INT and INF were normally distributed since their Prob>chi2 were greater than 0.05 significant level, while BTC, MBT and EXC variables were not normally distributed since their Prob>chi2 were less than 0.05 significant level (Table 3). Therefore, to make all the data normal these variables were transformed into nature logarithm and all the variables became normally distributed.

Furthermore, the study obtained that all the variables were not stationary at levels except for EXC variable, which was stationary at levels. But they all became stationary at first difference (Table 4). Also, the study obtained that the variables were cointegrated at order one (Table 5).

Table 3. Skewness/ kurtosis test for normality

Variable	Obs	Pr(Skewness)	Pr (Kurtosis)	Adj chi2(2)	Prob>chi2
M3	32	0.6978	0.0285	4.90	0.0863
BTC	32	0.0000	0.0011	21.84	0.0000
MBT	32	0.8684	0.5441	0.40	0.8169
EXC	32	0.0000	0.0000	41.49	0.0000
INT	32	0.9415	0.0587	3.85	0.1462
INF	32	0.2039	0.5415	2.15	0.3414

Table 4. Unit root test (at first difference)

Variable	Test statistic	Critical value	P value Z(t)	I(1)
M3	-4.476	-2.989	0.0002	I (1)
BTC	-4.533	-3.723	0.0002	I (1)
MBT	-6.429	-2.989	0.0000	I (1)
EXC	-6.531	-2.986	0.0000	I (1)
INT	-4.016	-2.989	0.0013	I (1)
INF	-5.839	-2.989	0.0000	I (1)
Critical Value at 5%	-2.989			

Table 5. Johnson test for cointegration

	Parm	LL	Eigenvalue	Trace statistic	5% ctritical value
0	42	-173.15688		94.9143	94.15
1	53	-155.53287	0.69116	59.6663*	68.52
2	62	-141.6458	0.60379	31.8921	47.21
3	69	-134.90997	0.36177	18.4205	29.68
4	74	-129.13733	0.31944	6.8752	15.41
5	77	-125.82975	0.19789	0.2601	3.76
6	78	-125.69973	0.00863		

Table 6. Long-run relationship of the variables

Number of obs	=	32				
F (2,29)	=	27.40				
Prob>F	=	0.0000				
R-squared	=	0.6539				
Adj R-squared	=	0.6300				
Root MSE	=	2.6394				
Number of obs	=	32				
m3	Coefficient	Std. Error	Z	P>/z/	95% Coef.	Interval
m3	1					
log_btc	12.95108	68.15184	1.90	0.047	-4.064342	263.086
log_mbt	-44.74946	183.1641	-2.44	0.015	-806.4897	-88.4996
log_exc	32.09582	482.7491	6.65	0.000	2263.411	4155.753
Int	20.29676	56.53173	0.36	0.023	-90.50339	131.0969
Inf	87.70805	68.17924	1.29	0.035	-45.9208	221.3369
_cons	-19315.55					

The post-estimation tests involving Multicollinearity test, heteroscedasticity test, autocorrelation test, omitted variable test, and model specification test and obtained that the model was well specified with no multicollinearity, autocorrelation, heteroscedasticity, omitted variable problems and model specification problems were conducted and it was found that the model was well specified. Basing on the objectives of this study, it was found that bitcoin was statistically significant with a negative effect on extended money supply which stood as a proxy of monetary policy. Also, it was found out that mobile money transaction was positive and statistically significant to extended money supply. The results are presented in Table 6 above.

5. CONCLUSION AND RECOMMENDA-TIONS

5.1 Conclusion

The study was conducted to examine the effect of digital currency on monetary policy in Tanzania. This study concludes that, digital currency in terms of mobile money transactions and Bitcoin affects the monetary policy in Tanzania and that there is a relationship between digital currency (bitcoin and mobile money transaction) and monetary policy (extended money supply). The bitcoin affects monetary policy negatively, implying that Bitcoin does not favor good conduct of monetary policy in Tanzania. On the other hand, mobile money transaction affects monetary policy positively.

5.2 Policy Recommendations

Since 2019 the Tanzanian policy on digital currency is based on the totally ban on the use of digital currency since they may result in price volatility and weaken the monetary policy. From the results of this study which shows that there is a statistically significant relationship between digital currency and monetary policy, the study recommended that;

i. The government should allow the use of Bitcoin (cryptocurrency) if and only if the Tanzanian monetary policy is more strengthened so as to make Bitcoin able to contribute highly in the economic development within the country.
ii. Also, since the results are statistically significant then this shows that both organized and unorganized money market can work together. Therefore, the government should make more concern on the use of these two forms of market so as to make the country achieve high economic growth.
iii. Education should be provided to the people on the use of digital currency so that different people should engage in the use of these digital currency within the country but under strict regulations, hence boosting up the country's economy.
iv. To the people on the use of digital currency so that different people should engage in the use of these digital currency within the country but under strict regulations, hence boosting up the country's economy.

5.3 Further Research Recommendation

This study provides the foundation on the understanding on the effects of digital currency on monetary policy and the economy at larger.

Even though different effects have been shown in this study, therefore, the study recommend further studies on digital currency and monetary policy should be conducted so as the country should have a large optional pool of studies on the use of digital currency within the country.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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