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A REVIEW OF CRYPTO CURRENCY AS CASH AND CASH EQUIVALENT

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Abstract

In the year 2008, electronic coin was introduced into the world of business. Thereafter Bitcoin was formally launched in 2009 after which various altcoins were mined. Crypto currency (CC) was introduced to provide an alternative medium of exchange used for investment purposes, to simplify online purchases and to eliminate the middle man (banks or financial institution) and third party transactions (interest on transfer). The aim of this review is to highlight the place of CC as to whether it is cash or cash equivalent. In IAS 7 cash was described as "cash on hand and demand deposit" and in other studies it was described as anything that is generally accepted for payment of goods and services (whether physically or electronically managed). Some of the functions and characteristics of the conventional money were also used to examine CC, to verify if it has the same characteristics as the conventional money. When one considers the aforementioned characteristics, then CC cannot be viewed as cash or cash equivalent because it is not generally accepted; and it is not backed by any standard nor is it convertible to short term investments at a future date.

Key words: Cash, Cash equivalent, Bitcoin and Crypto currency.

JEL Classification: E4; E58

Introduction

Crypto currency (CC) is a functional decentralized cash payment system which came into existence in the year 2008by a mysterious person called Satoshi Nakamotor. Nakomotor who is a programmer was tired of the third party transaction (the bank) and third party commission paid on every transaction and therefore introduced the decentralized digital currency (Brander, 2014). CC was introduced with the aim of serving the world as a medium of exchange which could be used for the payment of goods and services, for investment purposes and capital gains (Nakamotor, 2008).

In 2009 a virtual coin or currency called the Bitcoin was introduced, it was the first established CC and the fastest moving electronic coin. Bitcion is a decentralized digital currency or it operates a decentralized system of government that is not regulated/controlled by any central authority like the central banks that we have today; in other words, each man being his own bank or having equal rights or power (that is giving banking power to the ordinary man) (Rose, 2015). It is a currency achieved through the peer to peer (P 2 P) architecture (Lansky, 2018) that serves the entire world but not just a particular country. In conformity with that, Devries (2016) emphasized that CC (bitcoin) is a P 2 P network that facilitates digital barter. Bicton uses cryptography for security and the aim of cryptography is to avoid having a counterfeit coin (Metz, 2013 and Prohazka, 2017). By 2011 to be precise, other forms of CC called the altcoins were developed like the litecoins, Dash, one coin, ether etc and as of today there are over 1500 CC around the world as well as over 5.8 million users of CC wallet.

CC is a system that encourages pseudo anonymity (unidentified users) to which only the account owners/ business partners are aware of the owner's identify. It means that for a transaction to be complete, the owners must have accounts to which they will obtain private and public keys. The private key is not to be disclosed to anyone, but the public key is open for transaction. Once the private key is mistakenly disclosed to another person, that person can take full control of the account and it becomes his (hers). To highlight more on this, in the conventional banks the private keys represents your pin number and the third parties are the banks and regulatory authorities.

Notably, transactions in CC are irreversible or immutable that is where some money was erroneously remitted to a non-existing account or to a wrong

business partner or payment gained through criminal activities, the amount remitted is said to be lost forever. That is why the account owner must have the required facilities for the transaction and must be very sure of the recipient's details (Lanskey, 2017).

In addition to the discussion on conventional banking system using the fiat currency, Brader (2014) posits that the activities of digital currency or bitcion works practically the same way as the conventional currency, though majority of the currencies are invisible or electronically managed or found only in the internet but different items can be purchased with it in minutes. He also emphasized that Bitcoins and other altcoins cannot work without the computer and internet. This goes to show that there can be no Bitcoin without computer network. It means that those who trade mostly on this can mostly come from countries where proper internet access and power supply are available as well as all other parameters. Therefore, for a developing country like Nigeria where not up to 10% of the populations are aware of crypto currencies, getting involved in that kind of activity will be difficult because the parameters/resources for doing this are limited.

Review of Related Literature

The word Crypto from the Webster dictionary means hidden or secret. It is viewed as a subset of crypto asset (CA), and different studies have named it differently such as virtual money, digital money, electronic money, night market transaction (Chiu & Koepple, 2017). Chiu and Koepple (2017), referred to crypto currencies as night market because payment in the night market enters the state through a process called mining or minting. But to Okhuese (2017), they emphasized that CC is a subset of digital currency and are also classified as a subset of alternative and virtual currencies and that was why other currencies that came after the first coin was introduced (Bitcoin) were labeled altcoins.

As stated above, some studies proposed that the major aim of CC is to serve the world as a medium of exchange; it is a digital coin that can be used in minutes to pay for goods and services online, for investment purposes, to eliminate regulatory agencies or third parties in the transaction (Brander, 2017) and also used to see that authenticity and verifiability are ensured (Nakamato, 2008).

Prohazka (2017) states that the CC was not created to stand as a new currency but as an electronic payment system without any central authority stepping in to mediate transactions. The question may be "Can a system work without a central authority to control its activities? And for how long can this be sustained?" These are necessary questions to be asked and some studies believed that a system without a central authority is indeed a risky venture because anything or event not regulated or protected by a specially placed authority is a risky system which can crumble at any point in time. That was the very reason it was emphasized that CC was created or introduced not just for investment purposes but to equally see that authenticity and verifiability are ensured (Nakamato, 2008). The fact that the coins are encrypted cryptographically or cryptography sealed for security reasons in other to avoid hacking and counterfeiting etc has covered up for the fact that the system should be a decentralized one (Metz, 2013 & Prohazka, 2017). That shows that it is a system that saves audit time because all transaction are well presented, completed and the system audits its accounts immediately in the block chain network (Thoren 2017).

In relation to that, just like other currencies, the CC is a currency that cannot function alone because it is a system controlled by the forces of demand and supply. It means the currency can go up and down at will or at the slightest unclear information. That was why in the year 2013, china gave a statement that it was not sure if the CC or Bitcoin be called a currency or legal standard. This statement changed or disrupted the demand for the currency and this made the worth of the coin to drop drastically to a very low level. Other countries like the Brazil, Columbia, Cyprus, Greece, Hong Kong, Hungary, Ecuador, Bolivia, Algeria, Austria, Vietnam etc view the currency as an illegal item and some other counties do not recognize it as cash or its equivalent despite its fast growing rate (Bajpai, 2019).

Evidently, as at 2018, over 100 countries have accepted, recognized and are transacting in Bitcoins. Some of these countries are the US, UK, Japan, Italy, India, Mexico among others.

Table 1 below represents the summary statistics of those countries that have accepted the use of CC as a legal standard and those that have not recognized it as a form of currency.

Table 1: A Statistics of Crypto Currency and the Level of Acceptance

111 countries out of 251 countries view CC as a legal transaction
I0 countries regard it as an illegal transaction
9 countries restrict its usage
24 Countries are neutral about it
97 Countries have no information about it.

Source: Coindance.com

From the table above, these figures can be further represented using a histogram thus;

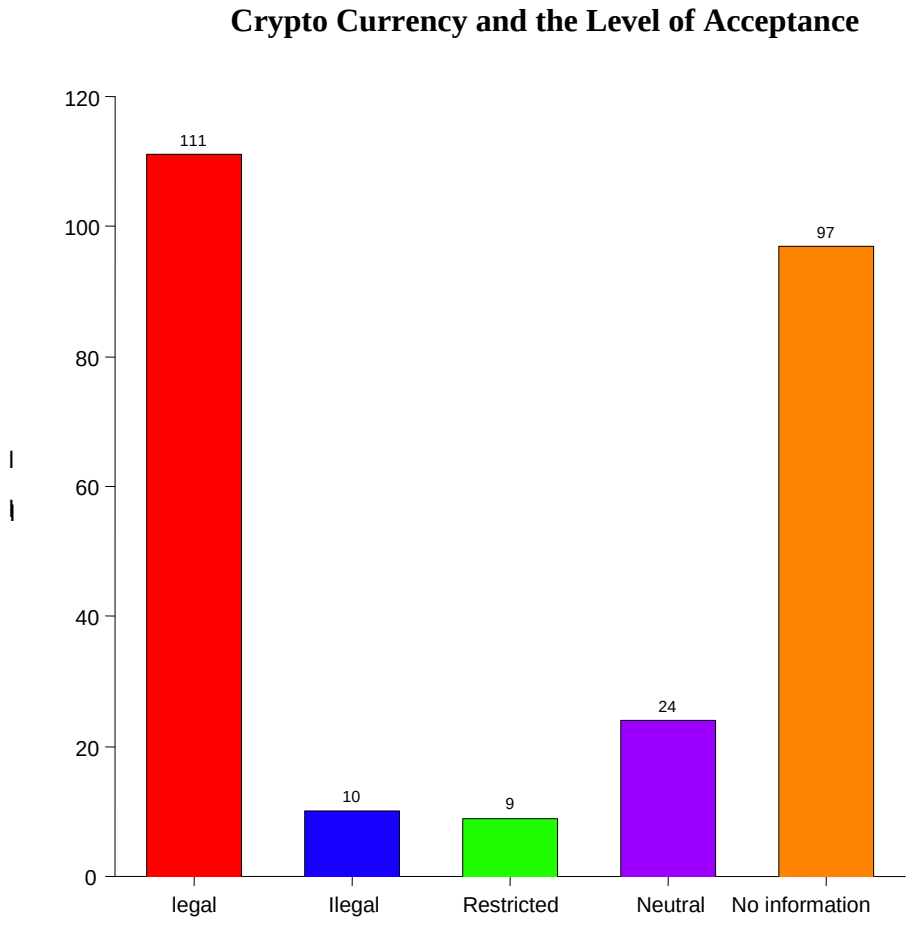

Figure 1: CC and the level of acceptance by different countries
Note: This figure shows the level of acceptance of CC by different countries. The bars indicates that 111 countries = legal, 10 countries = illegal,9 countries = restricted, 24 countries = neutral, and 97 countries = no information. Specifically, the bars indicate that the highest level of acceptance of CC is seen in the first bar by 111 countries and the lowest is that CC is restricted in 9 countries. The figure is developed from Table 1 using NCSS 9.0.

From the table above, it is shown clearly that many countries have embraced CC since the existence of the coins in 2008. It is fast growing and is accepted in many countries in a short space of time. It has also shown that out of the 251 countries sampled, 111 (44.22%) countries have accepted it as a currency and have equally recognized it as cash or a mode of payment; 10 (3.98%) countries out of the 251 countries are aware of it but view it as an illegal and fraudulent activity. Nine (9) countries out of the 251 countries have a full knowledge of CC (bicoins) but it is restricted in those countries. Twenty four (24) countries are neutral or indifferent about it while 97 (38.66%) countries have no formal information or are not aware and have not recognized it as a means of payment. But above all 140 countries have not fully legalized its activities.

Money/Cash

Money is anything that is generally accepted as a means of payment for goods and services or in the payment of debts (Ireland, 2003). Money is synonymous with currency and cash because currency refers to money. This was emphasized in IAS32 (Financial Instrument: Presentation) that currency (cash) is a financial asset because it represents a medium of exchange. And in IAS 7 (statement of cash flows), cash is defined as cash on hand and demand deposits. And in JPMorgan (nd) cash is the most important asset and should be managed efficiently to support your growth and financial strength. While Andolfztto (2009) views it as a medium of exchange that circulates widely. Furthermore, the code of federal regulations of the US department of the treasury views currency as the coin and paper money of the United States or of any other country that is designated as legal tender that circulated and is customarily used and accepted as a medium of exchange in the country of issuance (Prentis, 2015).

Cash Equivalents

IAS 7 states that cash equivalent are assets that are short term investments that are easily converted into cash or cash equivalents includes investments that are short term (less than three months from the date of acquisition), readily convertible to a known amount of cash. Cash equivalents are short term, highly liquid investments that are not just convertible but are so near their maturity that they present insignificant changes in value because of changes in interest rates (Delloite, 2018). And other studies viewed it as stored value products to which their value are considered taxable income to the recipient irrespective of the amount.

Discussion

Crypto Currency as Cash or Cash Equivalent

Cash is defined in IAS 7 (statement of cash flows) as cash on hand and demand deposits. And Rosic (2017) in prochazka (2019) stated that money is defined in economics as anything that is generally accepted for payment of goods and services. While splitting this definition into parts, the conventional cash or money is viewed as cash on hand, meaning that it is money or notes used to buy or pay for small things or payment made in cash. Considering this ordinarily, CC can also be used for the purchase of both small and big items. But a deeper understanding of money as cash on hand as stated in IAS 7, shows that it is cash in the hands of the general public, not in the hands of a few countries, hence, CC does not fit well into this definition.

And looking at cash as demand deposits, "are the amounts of money in our regular savings and current accounts." They are funds deposited in the bank that can be withdrawn at any time. Therefore, bitcoins are also a form of demand deposit (though without any central authorities) because it can be withdrawn and transferred for use at anytime using the crypto wallets (web, mobile or online).

Furthermore, the code of federal regulations of the US department of the treasury views currency as the coin and paper money of the United States or of any other country that is designated as legal tender that circulated and is customarily used and accepted as a medium of exchange in the country of issuance (Prentis, 2015). Irrespective of the first definition of cash above, the second definition of currency/cash has shown that for money to serve as a medium of exchange, it must first be generally accepted in a given territory/country without reservations; therefore, general acceptance is the first and the most important characteristics of money, after which other characteristics follow. Adopting that, the major flaw with CC is that though it is recognized by some countries, it is not generally accepted by all and therefore, cannot serve as a medium of exchange. On the other hand, though the CC has a lot to offer and work is still in progress, it is not backed by any standard or there is no international standard exclusively dedicated to it. However, there are some direct and indirect remarks in the standard (IAS 7 and 32) that seem to be related to the definition of CC.

The major functions of money are money as a store of value, a unit of account and medium of exchange. The Collins English dictionary (2017) defines "store of value" as the function of money that enables goods and services to be paid for within a considerable time after they have been acquired. This mean for an item or commodity to be called money, that item or commodity has to be something that can be exchanged or collected after trade and stored for future use or later use. Money can be said to be stored in the bank or with other financial houses. Money as a store of value means store of wealth and it is a store of value if it can endure for tomorrow use (Krawisz, 2015). Bitcoins and other coins fulfill this function since one can purchase them for use in a future date. CC has endured over time (from 2008) and it is still ongoing and so many Crypto Bitcoiners/Cryptocoiners have become multi millionaire from it.

In other to emphasize on this a bit further, some of the characteristics of money states that "Cash or money should be visible (physical) or managed electronically, must be divisible and must be generally accepted". But does the CC have these qualities? The CC does not have any physical form because it is a virtual/electronic currency, which means that it can be saved for a later date or for future use (store value) and CC can also be used for the payment of goods and services. This was proven in the year 2009 when one of the first persons that

had traded on CC sold his coins for few packs of Pizzas, as at today, Crypto payments are accepted by so many multinational business set ups like DELL, EBAY, PAYPAL etc (PWC 2017).

Serletis, (2011) maintains that electronic payment can substitute for cash. Bitcoins for example is a virtual currency that is divisible; it can be divided up to 8 decimal places. That means a bitcoin is divisible to units or 8 decimal places where each fraction is called a Satoshi (named after the inventor) and each bitcoin is comprised of 100 million Satoshis.

Furthermore**,** money as a unit of account means a single thing or common thing used to represent a whole. Unit of account is a common measure used for valuing goods (Cliffnotes, 2016). It is the price or worth of something. It also means measurement for something or the value of an item measured in specific currency. It is the value at which something is accounted for and compared using the national currency of a country (business dictionary 2019). Bitcoins fulfills this function in the sense that the crypto wallets (web, desktop or mobile) permit the purchase of items both big and small using the coins. Apart from saving the coins in other wallets, some other wallets like mobile or online can be used for various transactions ranging from food items, bills, debts etc. Most establishments like Microsoft, Ebay, DELL permit the use of Bitcoins for payment while, about 111 (one hundred and eleven) countries have legalized its activities. Just as money is a unit of account with symbols for each country, Bitcoins, litecoins, Dash, One coin, Esther etc are monetary units with different symbols as well.

And looking at money as a medium of exchange, it means any commodity or item generally accepted by the people and used for commercial transaction. It is that currency or instrument that can be used for the exchange of goods and services in a particular country. Money as a medium must benefit the parties involved. That is, it must grant some economic value because without money transactions will be done only by barter. This practically shows that the function "medium of exchange" cannot do without general acceptance because it is only when money is fully accepted that it becomes a medium of exchange.

On the other hand, IAS 7 states that cash equivalent are investments that are short term (less than three months from the date of acquisition), readily convertible to a known amount of cash. CC does not meet the definition of cash equivalent because it cannot be converted to cash and does not have a fixed maturity date or it cannot be converted since it is already viewed as cash to some. And secondly, CC does not meet the definition of cash equivalent because of the inconsistencies or changes attached to the prices of bitcoin whereby the prices of a bitcoin can rise today and fall the next day due to exposure to significant changes in market value. A practical example was seen in the year 2017, as there was a huge rise in the price of bitcoin which was priced at USD18500 but in 2018, the price dropped to about USD7200. But thanks to the recently introduced algorithmic supply model by the BTC foundation, (2019) which will help to define at every point what the supply or price of Bitcoin will be at a specific date.

Conclusion

Crypto currency as a digital currency has been in existence for about a decade. It was introduced by an unknown person with the name Nakamoto in the year 2008 and has been on the fast track since its inception. And from the year it was introduced till date, other digital coins came into existence like the Bitcoin, litecons, Esther, Dash, One Coin, etc. Today, Bitcoin is the fastest moving electronic coins with a peer to peer network that facilities digital barter system. From all indications, CC cannot be recognized as cash or cash equivalent because it has not been fully accepted all over the world or it is not a functional currency of any country (which means it cannot be viewed as a medium of exchange as well). The value of bitcoins is always fluctuating according to demand and it is not backed directly by any known standard. Hence, at current time, CC cannot be recognized as cash or cash equivalent since cash equivalent are short term investments that are convertible at a future date (IAS 7).

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