



ELK
Asia Pacific Journals

www.elkjournals.co

AN ANALYTICAL STUDY ON CRYPTOCURRENCY- BITCOIN

K.RAJYYAALAKSHMI

Assistant Professor, Faculty of Commerce & Management,
Pragathi Mahavidyalaya M.B.A College,
Hyderabad, Telangana, India.

ABSTRACT

CryptoCurrency is a Digital Currency exchanged entirely over the Internet. Most of these currencies are decentralized. Bitcoin the oldest CryptoCurrency is a distributed Peer- to-Peer Digital Currency that can be transfereed instantly and securely between two people in the World. It is Electronic Cash that can be used to pay merchants. The Present paper analyze the Mechanism of Bitcoin, Bitcoin Mining Process, Bitcoin on the Trade Market. It also analysis on the legal and the Tax Consideration, Problems with Bitcoin and the Risk related to Bitcoin and Concludes with the Promising Opportunities in the Open market for Cryptocurrency Trading.

Keywords: *Cryptocurrency, Bitcoin, Trading.*

1.0 Introduction

CryptoCurrency is a Digital Currency exchanged entirely over the Internet where all information on its creation, Transactions and validation of authentic exchange is secured through cryptography, the art of making codes. Most of their currencies are decentralized unlike a central Banking system, which control money Supply,

the creation of cryptocurrency is public. Father, No central - authority can interface in setting its value, which is decided purely by market forces. Bitcoin is distributed peer to peer digital currency that can be transferred instantly and securely between two people in the world. It is electronic can that is used to pay merchants. Bitcoin are the unit of currency of the bitcoin system. A

commonly used short hand for this is BTC to refer to a price example "100 BTC'. It is a number associated with a Bitcoin Address. There are being traded in more than 4,000 Cryptocurrency in existence as of January 2021. . The Total value (market capitalization) of these currencies is \$1,039,142,761,334, Bitcoin the oldest crypto currency, dominates with over 61.11% of Market share as on 1st march 2021. The Bitcoin barreled to new highs to rise more than 400 percent ones the past year, before promptly sliding some 20 percent and then setting around \$ 36,000. When it started life in 2009 year as open source software, Bitcoin was essentially worth zero through within a year it and reached the heady heights of eight cents. At today's market rates bloated by a swipe in Institutional demand the digital units market capitalization is worth around \$ 670 Billion with Myriad other crypto

coins a such as Ethereum lifting the sector nominally close to the trillion mark. **(Ref Figure- 1)**

Literature Review.

Global Financial Crisis - Year 2008

The credit crisis includes Sub-Prime Mortgages, Collateralized Debt Obligations, Frozen Credit Market and Credit Default Swaps. When an Investor with investment wants to make more money. They go to U.S Federal Reserve to buy Treasury Bills. But the Bank chairman gives 1% on Investment, which is very low on return on investment. So, the investor hesitate to buy. However, On the other side bank can borrow from Federal Reserve only at 1%. General Surplus from Japan, Middle East and China and so there is a bundles of cheap credit. This makes banks with easy of money and use Leverage to amplify the outcome of a deal.

The House Owners connect Investors on Wall Street through Mortgages. When a family wants to buy Home reaches broker, who also gives Financial Assistance from money lenders broker gets commission for their work and family becomes Home Owner, considering housing prices rise very day. However, on the other side when a Banker want to buy Mortgage reach Money Lenders and they sell Mortgage at nice fee and the bank put thousands of Mortgage in a box and get monthly payments from House Owner which form Collateralized Debt Obligation. Based on the Return on Investment and when the Home Owner do not pay it become risk and to make safer, Bank gives Credit Rating System. **(Ref Fig-2)**

Investors and bankers sell these collateralized debt obligations and make millions by selling, to repay loans finally, investors are finding good investor for their money rather than 1% Treasury Bill. So they

want more House Owner. But they do- not find because everyone has one home. However when house owner do not pay, House go to lenders i.e., Instead of selling to responsible (prime) house owner, they started selling to less responsible house owner (sub-prime mortgage) and when considering the value of the house decreasing the investor say no the bank and on other hand from owner. House no monthly payment is received. So, everybody Bankrupt and Crisis follows.

The Global Financial crisis of 2008-069 raised a simple question. What option do people have if banks are not to be trusted. A man or a group of people named Satoshi Nakamoto provided an answer, a peer to peer, trustless Electronic Cash System based on a Technology called Block Chain solved the double spending problem by designing a decentralized ledger that bundles data about transactions into blocks and links each new block of transactions with the previous one

in an immutable chain of blocks that are copied, authenticated and updated continuously and publicly on thousands of computers called the block chain. It uses economic incentives payment in the form of bitcoin or other crypto currencies to motivate members of the network to do the work of validations every transaction. It does away with the bank's role as an intermediary which differentiates crypto currency from Fiat Currencies.

2.0 Objective of the Study

**2.1 To Analyze the Concept of
Crypto currency, Bitcoin.**

**2.2 To Understand the Legal and
Tax Consideration.**

**2.3 To Know the Risk related to
Bitcoin**

**2.4 To Understand the problem
related to Bitcoin.**

3.0 Research Methodology

The Present Paper is a Descriptive Research data based on the material collected from Secondary data. A Bunch of Secondary data has been mobilized from Standard Textbooks, Journals, Reports and Newspapers.

Cryptocurrency-Bit coin.

Bitcoin is a digital file, which contains ledger which further contains names and balances. People exchange money by changing this file. Everyone's ledger are kept in synch with other ledger with money transfer., When a person want to send money, he has to broadcast a message with his account number, receiver account number and the amount. **(Ref Fig- 3)**

Then, Everyone in the entire world, updates their ledger. The other way one can send and receive money without maintaining the ledger is through a private key, mathematically linked to the account number. Bitcoin wallet holds these private

key along with the transaction and create signature which are kept into cryptographic function. (Ref Fig- 4)

Bitcoin Mining :

New Bitcoins are generated by the network through the process of mining. A computer is given a computer mathematical problem to solve the algorithm and when a person solves the algorithm, he becomes the owner of the block and new bitcoins are created. Only 1 21 million bitcoins ever been created till now. All the bitcoins are process and check all bitcoin transaction in a public ledger called block chain. (Ref Fig- 5)

Bitcoin Market:

Bitcoin markets are competitive that the price of a bitcoin will rise or fall depending on supply and demand at certain price levels. 1 Bitcoin = \$ only a fraction of bitcoins issued to date are found on the exchange markets for sale. So, even though technically a buyer with lots of money could

buy all the bitcoins offered for sale. Unless those hosing the rest of the bitcoins offer them for sale. Even the wealthiest, most determined buyer can't get at them additionally, new currency continuous to be issued daily and will continue to do so for decades to insignificant levels. Those who are mining aren't obligated to sell their bitcoins so not all bitcoins will make it to the market. The Market aren't vulnerable to price manipulation. It doesn't take significant amount of money to move the market price up or down and thus bitcoin remains a volatile asset. As per the economist gradwell the bundle of investors are not day to day traders, but people making a long. (Ref Fig- 6)

Legal and Tax Consideration

There are a growing number of business and individuals using crypto currencies like bitcoin. These include brick and mortar business like restaurants, apartments, Law firms, and popular online services such as

name cheap, wordpress, Reddit and Flatter bitcoin is steadily increasing in popularity as an accepted currency all around the world. Several vendors and market places now accept bitcoin as a mode of payment. This trend - holds particularly true for vendors who accept micro payments such as payment for digital music downloads. Such vendors value the use of bitcoin to avoid the transaction costs associated with traditional electronic payment methods. Bitcoin is also growing rapidly in the area of online Gambling. The growing use of bitcoin as a standard currency give rise to a host of potential income and other regulatory issues.

Risk Related to Bitcoin

Bitcoin is stored digitally in software, which is known as a Digital wallet. This is secured through encryption to open the wallet a decryption key is used the password is the decryption key without which the bitcoin stored in the wallet will remain "hidden" and in accessible in the event that a user loses

the password, he will no longer be able to access whatever is stored in his wallet term punt and he estimates that the spectacular price boom of recent weeks has involved only around five millions units. "Crypto jacking" incidents in which people's devices are quietly hijacked and force to mine digital currencies for other people. According to analysts at JP Morgan, Bitcoin may be highly volatile but could go as high as \$ 146,000 per unit putting it in competition with gold as an asset class in term of private sector investment. That volatility, as well as the unregulated and decentralized nature of the bitcoin, are key reasons why many seasonal financial obscurer are sacred off as well as the risk of "Losing" their stash.

Vulnerabilities in Bitcoin Transactions

This arena of virtual transactions is relatively novel and largely untested. This means that, just like any technology or innovation there is a high possibility that many loopholes might exist in this system that have not been

detected yet. This only adds to the appeal of the bitcoin for financial criminals. Most prominent of these offences which are already existent in the traditional financial world and which may extend to bitcoin are money laundering and terrorist financing

I. Money laundering

One of the major enabling factors to are money laundering is lack of uniform financial jurisdiction across the globe. This is the reason why certain areas are labeled as "tax havens". It may be noted that money laundering contributes largely to the deteriorating state of economies in the world.

II. Drug Trafficking

Silk road, launched in June 2011, and only reachable by people using Tor, the software that lets one surf the dark web anonymously. Silk road was used by countless people to get access to illegal merchandise, spanning from drugs to

assassins for hire. An estimate of \$1.9 million dollars' worth of bitcoin transactions per month were done according to a research.¹⁷³ This came as a confirmation of the fact that bitcoin is fast becoming the first choice for drug dealers to shelter themselves from the scrutiny of the law.

III. Tax avoidance and Evasion

There are very few nations who have released rules or guidelines regarding the treatment of bitcoin for the purpose of taxation. While most countries have not resolved the issue of taxation of bitcoins and transactions in relation to bitcoins, it is speculated that the answer might be in affirmative.¹⁷⁴

IV. Terrorist Financing

The concepts of terrorist financing and money laundering have been distinguished by the international compliance association. Terrorist financing is

concealment of future application of financial resources that may be illegal where in such resources are obtained from a legitimate source. On the other hand money laundering refers to past or present benefit.

176. Traditionally terrorism has been defined as the use of threat or violence a political end. However, this definition is stale.

Problems with Bitcoins

I. Cyber attacks and Hackings:

"Virtual Bank Robbery" Attacks by "cyber thieves" are becoming frequent with the passing of time. Especially the Bitcoin community has been hit by such thefts quite repeatedly. This not only creates panic in the bitcoin community but also leads to a decline in the value of the currency. Cyber security will be a constant concern, mostly because the transactions are restricted only to the cyber environment.

II. Price fluctuation and Inflation

One of the major reasons why today many businesses and merchants avoid used bitcoin is that it is new and the volatility of bitcoin value is extremely high.¹⁶⁸ This again leads to the uncertainly and reduced confidence in the currency. Although, some think that in spite of these flaws one of the most valuable consolation might be that there can be no artificial inflation or deflation of the currency.

III. Fraud

Some say that bitcoin will keep appealing to charlatans coming up with destructive schemes as explained above since bitcoin offers benefits of privacy as well as limited oversight by the regulators. When compared with the traditional fiat currency that not only has extensive regulatory oversight but also offers very less privacy, bitcoin does seem like the better option for the fraudsters.

IV. Uncertainties in the Government Policies

Since most jurisdictions have not made a decision regarding the status and treatment of bitcoin in the economy, as already discussed above, the uncertainty is a deal breaker for many new prospective users of bitcoin. One of the major dangers here is that any government might come around and declare it illegal, leaving the investors without remedy and helpless.

Conclusion

As we know that the blockchain technology aims to transform the current Financial System and exclude the mediators. Many Financial giants show that blockchain can be successfully used in the bank System. However bitcoin is not only a measure of Money and Goods in Crypto but also measured in BTC. Some Economists point to the fact that because it is limited its price will increase over the long run making it less useful as a currency and more a vehicle to store value like gold. But others point to Bitcoin's Volatility, Security issues and

other weaknesses. It will first face difficulties but it will make way for the next Cryptocurrencies. There is a possibility of theft when Bitcoin are stored in Digital wallets and a promising Opportunity that remains open in the Cryptocurrency market.

References

- 1) International Compliance association 2013 workshop Note on anti money laundering awareness, Pg.38
- 2) Thomas S. Groth Esq., "Tax implications of bitcoin (and traditional alternative currencies) available at <http://www.irsmedic.com/2013/04/05can-youtube-taxed-for-spending-bitcoin/>
- 3) Satoshi nakamoto, "Bitcoin: a peer-to-peer electronic cash system", Bitcoin.org, available at <http://bitcoin.org/bitcoin.pdf>
- 4) Bearman, J. (2015, May). The Untold Story of Silk Road, Pt. 1. Retrieved from Wired.com Website: <https://www.wired.com/2015/04/silk-road-1/>

- 5) Bitcoin: A New Global Economy. (2015, August 4). Retrieved July 2016, from BitPay, Inc. Website: <https://blog.bitpay.com/bitcoin-a-new-global-economy/>
- 6) Bovaird, C. (2016, June 24). Bitcoin Rollercoaster Rides Brexit As Ether Price Holds Amid DAO Debacle. Retrieved June 2016, from CoinDesk Website: <http://www.coindesk.com/bitcoin-brexit-ether-pricerollercoaster/>
- 8) Desjardins, J. (2016, January 5). It's Official: Bitcoin was the Top Performing Currency of 2015. Retrieved from The Money Project Website: <http://money.visualcapitalist.com/its-official-bitcoin-was-the-topperforming-currency-of-2015/>
- 9) Gerber, R. (2015, January 29). Why Apple Pay And Dollars Are Killing Bitcoin. Retrieved from Forbes Investing Website: [ns/2015/01/29/why-apple-pay-and-dollars-arekilling-bitcoin/#23ac58a0b4b6](http://www.forbes.com/sites/greatspeculatio)
- 10) Hileman, G. (2016, January 28). State of Bitcoin and Blockchain 2016: Blockchain Hits Critical Mass. Retrieved from Coindesk Website: <http://www.coindesk.com/state-of-bitcoin-blockchain-2016/>
- 11) Hofman, A. (2014, March 6). The Dawn of the National Currency – An Exploration of Country-Based Cryptocurrencies. Retrieved from Bitcoin Magazine Website: <https://bitcoinmagazine.com/articles/dawnnational-currency-exploration-country-based-cryptocurrencies-1394146138>
- 12) Kar, I. (2016, June 30). Everything you need to know about the bitcoin „halving“ event. Retrieved from Quartz website: <http://qz.com/681996/everything-you-need-to-know-about-the-bitcoin-halving-event/>

LIST OF FIGURES

Figure 1: Share of the Respondents who own Bitcoin in the Year 2008

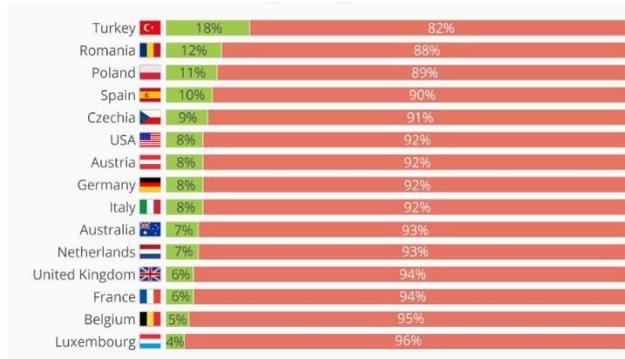


Figure 2: Investors and Bankers sell based on Credit Rating System.

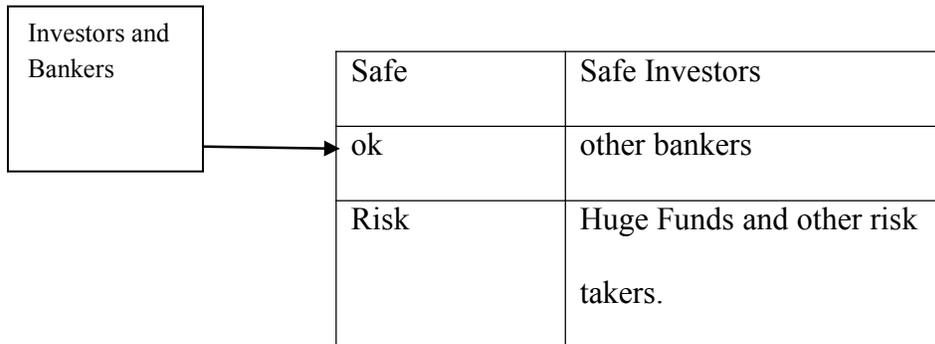


Figure 3: Transaction Message

| | |
|--------|------------------|
| From | Ram(lb132...) |
| To | Shyam (19vky...) |
| Amount | 5.0 |

Figure 4: The Top Ten Cryptocurrencies.

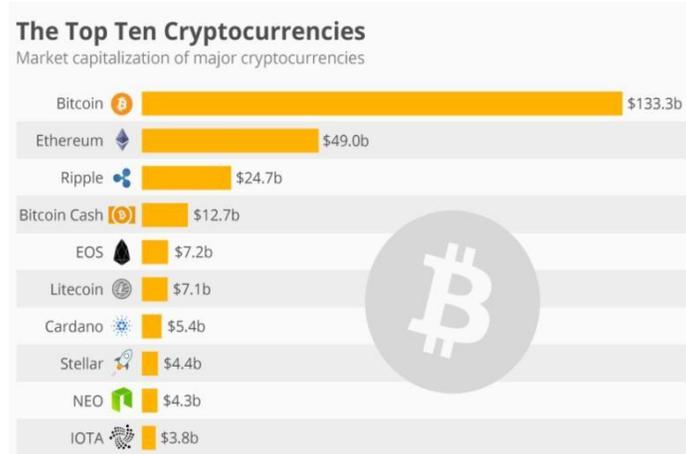


Figure 5: Bitcoin Account

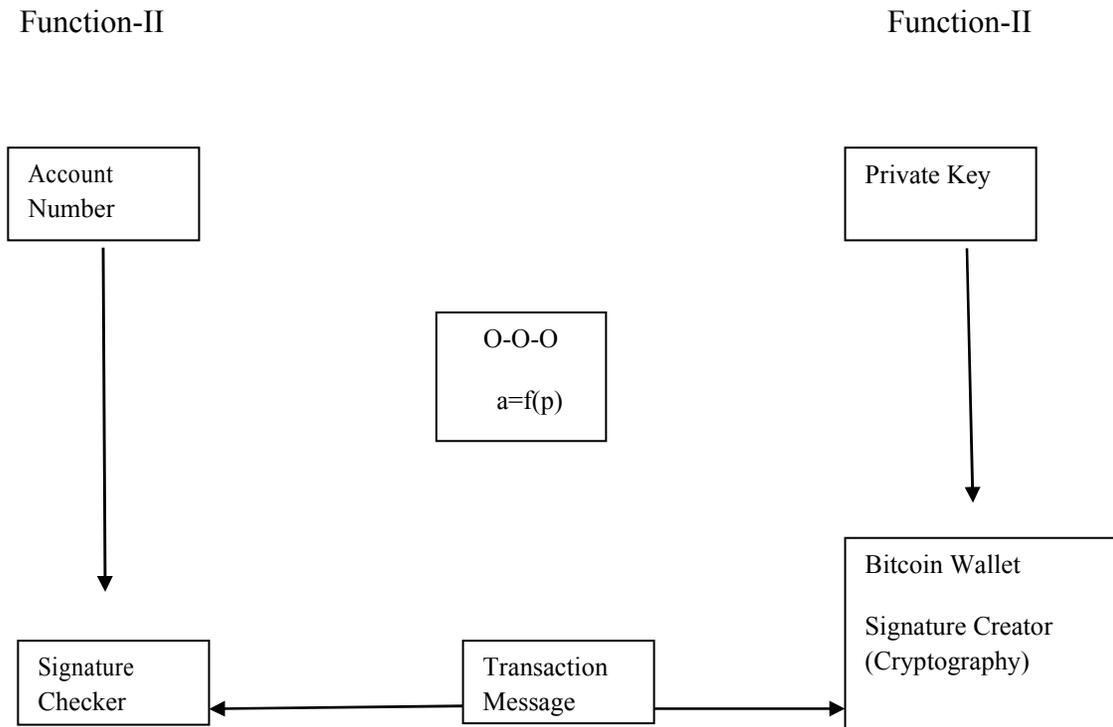


Figure 6: Bitcoin Price at New Record High.

