BITCOIN: VIRTUAL CURRENCY FACING REAL PROBLEMS TO BECOME GLOBAL CURRENCY

Ankur Agarwal, School Of Business Studies, Sharda University, Greater Noida, India
(ankur.aggrawal @sharda.ac.in)
Anoop Pant, School Of Business Studies, Sharda University, Greater Noida, India
(anoop.pant@sharda.ac.in)

ABSTRACT

In the present era of globalization, almost everything is internet based and boundary less. Currency cannot be far behind. Paper currency is a thing of past. There is a need of currency which is internet based and acceptable world over. This led to the introduction of the virtual currency has revolutionized the payment system. This virtual currency- the Bitcoin has emerged as the most popular and well known crypto currency. It has a potential to replace the International currencies like US Dollar (USD), EURO etc. The rise of crypto currency will add a new dimension in the way payment systems are addressed in paper currency. But every new thing comes with its challenges.
This paper tries to address the problems faced by Bitcoin to become an internet based global currency with a global payment system .This paper has used literature review method for addressing the problem faced by Bitcoin to become a real internet based global currency.
There are certain teething problems that obstruct the use of Bitcoin. Some of these are complex and non-convenient technology for a layperson. Others include non-existence of consistent guidelines on legal, accounting, taxation and audit related standards. Although the economy of Crypto Currency has increased tremendously in the recent years but only some high profile retailers are accepting Bitcoin. Since it has no central issuer, it doesn't have anybody's liability. Bitcoin has a long way to go but has to face challenges before becoming a globally acceptable one.
Keywords: Virtual Currencies, Bitcoin, Crypto currencies, Payment system, Blockchain.

INTRODUCTION

In this era where the entire world is a global village, there is a requirement of a global currency which can be accepted around the globe without any difficulty just like any other local currency in a country. Although there are certain currencies which are very popular and almost global currencies like USD which has survived as a world currency for decades, Japanese Yen did become popular as an international currency during 80s, Chinese Yuan Renminbi and EURO are also claimed as international currency in the International Finance.
As a matter of fact every currency is facing some or other challenges in the global economic environment whether it is USD, Yuan or Euro. However, the USD continuing to enjoy the status of truly world currency, due to the world's reserve currency until there is no credible alternative. Reserve currency countries enjoy exclusive benefits like cheap borrowings. It cannot last longer as other economies are emerging therefore over a period emerging economies would either want to get themselves added to the list of dominant world currency or will start demanding an alternate world currency altogether.
In this emerging economic scenario crypto currency like Bitcoin may emerge as a global currency. Bitcoin, the first crypto-currency was invented by Satoshi Nakamoto in 2009 as a peer-to-peer system where transact can took place among users without any intermediary. Transactions in Bitcoin are absolutely open and transparent and the information regarding any transaction stored on the network automatically. The information about the recorded is tamperproof and float across the network.
Bitcoin has introduced as an open source which is not administrated or regulated by any centralized body unlike any other real-time payment transaction system. Since there is no intermediately there is no transaction fee. The Bitcoin transactions can be done simply by downloading Bitcoin software which unable the users to access peer to peer network. Network users mutually provide the medium and process to verify transactions and information posted through the network and record on its mutually shared and decentralized ledger.

Keeping in view the above points the emergence of Bitcoin and alike crypto currencies may add a new dimension to the requirement of a global currency and a hassle free real time global payment system. Bitcoin started making its presence during 2013-14, in the earlier phase it was termed as "Pseudo currency"' launched by some computed hobbyists. In a very short span of time of few weeks, the US Dollar exchange rate of one Bitcoin raised more than five times. This is a clear cut indication of paradigm shift of both gold standard and fiat currencies to Bitcoin, a virtual currency based on computer programming with a limited supply. Twenty one million units of Bitcoin will be minted and released, this is fixed and it is also known to the public. Since quantity and growth rate of Bitcoin are fixed so its circulation cannot be affected by monetary policies.

LITERATURE REVIEW

Satoshi Nakamoto (2008) Bitcoin: A Peer-to-Peer Electronic Cash System	There is no Centralized Governing authority. An electronic transactions systems relying on cryptographic proof instead of trust. A digital Currency operates without any Intermediary financial Institution.
Plassaras, N.A., (2013). Regulating Digital Currencies:Bringing Bitcoin within reach of theIMF. Chicago Journal of International Law	The article describes the Role of IMF in Regulating Currencies and puts forward suggestions on how to bring Bitcoin within the purview of IMF. Pros and cons of the digital currency are told by the author.
Christian Beer, Beat Weber,(2014), Bitcoin – The Promise and Limits of Private Innovation in Monetary and Payment Systems	The opinions of the regulators and the governments especially European Central Bank, the European Banking Authority and other regulators in European countries like Austria, Italy and France , were highlighted by the authors. Basic functionality of Bitcoin and how it operates from a technology standpoint. This paper also touches upon the role of Bitcoin in the payment system as well as the monetary system.
Casey, M.J. and Vigna, P., (2015), Bitcoin and the Digital-Currency Revolution; For all Bitcoin's growing pains, it represents the future of money and global finance. Wall Street Journal (Online).	This paper talks about investors as Netscape founder Marc Andreessen and LinkedIn founder Reid Hoffman putting millions of dollars into bitcoin-related projects in the US, including the New York Stock Exchange and the venture arm of the Spanish banking giant Banco Bilbao Vizcaya Argentaria SA. Highlights the differences between the traditional banking transactions vs. cryptocurrency transactions.
Hochstein, M., (2015), The Crypto currency that Dares Not Speak Its Name. American Banker.	The author articulates how the Federal Reserve's white paper considers Bitcoin as a potential for real-time payments in the banking system. It is highlighted that the proposed design option of cryptocurrency which is not same as Bitcoin, it has features like (a) Individual users vs. financial institutions and (b) Blockchain vs. central ledger. The new currency will lose the features of Bitcoin and will be similar to fiat currency except for its virtual existence.

Burnett, John, 2015. The New Currency Dilemma., U.S. News Digital Weekly.	The companies operating as a virtual currency exchange does not have appropriate license to operate. New York department of financial services is developing a specialized bit license. This license will set the terms under for companies to operate as a bitcoin exchange or broker. The article also talks about How venture capitalist is investing millions in Bitcoin-related Companies like Coin base Inc. Coin base Inc. opened a bitcoin trading system (Bitcoin Exchange). The literature discusses virtual currency, an innovation from the high-tech world, which allows people in the U.S. and the rest of the world to send money instantly without banks, credit card companies or other financial intermediaries.
Tsukerman, Misha, (2015), Forth coming. The Block Is Hot: A survey of the state of Bitcoin regulation and suggestions for the future, Berkeley Technology Law Journal.	Bitcoin and Blockchain technology pose some novel regulatory and legal issues. This paper examines how government agencies and courts have attempted to keep society safe from Bitcoin and Blockchain users. The author has articulated various technological aspects of the Bitcoin. The author states the existing and the potential uses of Bitcoin including the negative aspects of Bitcoin like black markets and tax evasion.
Seetharaman A., Saravanan, A. S.,& et.al.(2017) Impact of Bitcoin as a world currency, Accounting and Finance research	The anticipated changes in the Regulation and the positive impact on the virtual currency. The crypto-currency technology can be utilized to come up with the legitimate currency. The Bitcoin Economy continues to grow and is gaining massive support. Understanding Bitcoin as a currency in its current form and whether in its current form or with certain positive changes if it can become a mainstream currency, which is freely available and acceptable to everyone.

RESEARCH METHODOLODGY

In this paper we have used secondary data to find out the potential of crypto currecy specially the Bitcoin to become a internationally acceptable single digital currency around the globe. We did compressive literature review to find out the potential. We found Bitcoin has vast a scope to do a comprehensive research covering all the aspects of Bitcoin in its current state and what can be the future prospects of it Bitcoin as an alternative of currency global currency which is acceptable by the financial systems, financial Institutions, businesses around the world. In this

paper we have studied four most important aspects of Bitcoin i.e, regulations, technology, economy and currency to analyze the opportunities and threats to Bitcoin as becoming global currency.

OVERVIEW AND DISCUSSION

I. Bitcoin Regulation

Regulation has become one of the most debated issues facing by Bitcoin. There is no consistency in guidance on the legal, accounting, tax and audit-related standards for Bitcoin and cryptocurrencies. Countries address Bitcoin in a different way. Government authorities, regulatory bodies and central banks has started consideration and making an opinion on it. They started talking about the risks associated with these currencies and how to make the rules to safeguard customers and financial institutions. Bitcoin technology has many of the unique and extraordinary features such as the ability to send money anywhere in the world on real time basis, its peer-to-peer decentralized nature of value transfer and its completely digital nature. Its distinguishing features give it the potential to be disruptive and impacting individuals, industries and institutions. Since there is no clear legislation on such currencies, it is a challenge for governments and policymakers to make the regulation for its operations.

In Europe, both the European Banking Authority and the European Central Bank thrash out the risks of Bitcoin and potential regulatory stand. The European Banking Authority is focused on risk to price stability, financial stability and the payment system for central banks. In summary, the European Central Bank warned the users that Bitcoin is a virtual currency schemes do not pose significant risks, because of their circulation is low in volume and limited exposure to the real economy. Nonetheless, this could change if crypto currency schemes became more important and their use more extensive.

II. Bitcoin Technology

Bitcoin Technology is complex and not easy to understand by a nontechnical. It could be one reason, new user or public at large are reluctant to use this technology. Though, this technology existed and used in multiple areas. The Bitcoin transaction process uses cryptography to verify transactions, process payments, and control the supply of Bitcoin. The particular cryptographic schemes implemented in the Bitcoin protocol are not new and are used in a wide range of information security applications. Bitcoin relies on two cryptographic schemes (a) digital signature, which enables the exchange of accurate (payment) instructions between the parties of a transaction, and (b) cryptographic hash function, which is used to enforce discipline in writing transaction, records in the public ledger. Neither of these schemes is unique to Bitcoin; they are widely used to secure commercial and government communications. (Anton B. & Matthew C., 2014)

Not all users can do “Mining” of Bitcoin because it is not a simple task. It requires both the knowledge on solving the algorithms and the absence of high-speed computing machines. However, there is clear understanding the advantages of this technology, which is mainly privacy, security and low transactions cost. Eventually there is a need of ample of access points where the fiat currencies can be converted into Bitcoin. Like in the form of Bitcoin ATMs or Online conversion services with or without Bank’s or Financial Institutions involvement is required.

III. Bitcoin Economy

In the earlier period of Bitcoin introduction, only some high-profile online retailers accept the payments in Bitcoin. The rise of solid and reliable payment service options looks to make coming years a game-changer for Bitcoin as an e-Commerce currency. It is evident that huge Venture Capitalists are investing money in Bitcoin-related startups, especially, Internet pioneers are seems assured on a bright future for Bitcoin. Huge Investors and internet technology pioneers such as Netscape founder Marc Andreessen and LinkedIn founder Reid Hoffman put $315 million into

Bitcoin-related projects in 2014 which was three times more the investment of 2013.There was a remarkable growth in the Bitcoin Ecosystem start-ups in 2014 with the Service providers such as wallet service providers, Bitcoin Exchanges, Financial Services, Universal service providers, Payment Processing and mining, which provides all the services mentioned previously. Price of Bitcoin is now available on Yahoo Finance, Google Finance and Bloomberg. In the earlier stage merchants were reluctant and didn't want to be first. Companies like Virgin Airlines and Alibaba's AliExpress have started accepting payments in Bitcoin. However, with major organizations such as Microsoft and PayPal taking leads, the virtual currency is gaining ground and now it's very much clear that Bitcoin is here to stay.

Bitcoin claims to operate a retail payment system with no need for trusted intermediaries. Banks and Financial Institutions as an intermediary only end up taking huge charges in the form of fees. There is a sustained growth in all the Bitcoin-related support system to eliminate such intermediaries. The numbers of Bitcoin ATMs have grown over 500 by the end of 2015 with North America itself having over 280 ATMs i.e. over 56% of total ATMs globally (coinatmradar.com.2017).

IV. Bitcoin as a "Currency"

In earlier times, the currency was in essence a receipt for a commodity redeemable in most cases for physical gold. At present, however, the majority of currencies are known as "fiat" currencies, meaning these currencies are neither intrinsically valuable nor redeemable for a commodity but, instead, are issued and backed by some central authority.. The value of such currencies derived from the trust placed in the central authority by the user of the currency.

In economics, money is defined by three functions - a unit of account, means of payment and store of value. Even in a current economic situation, there is a single unit of account in every currency territory, which is considered to be a proficient solution. Having all prices in a currency area denominated in the same unit makes them similar and enables the operation of markets. Typically, means of payment issued as official currency by a regulatory body, which is a central bank for that country which is in charge of ensuring the quality and quantity of that money according to a public mandate. While Bitcoin represents one of many private means of payment, it entails three peculiarities: It introduces a separate unit of account, it has no single and identified issuer and its quantity is ultimately fixed once and for all. Built around the model of gold, the Bitcoin is a pure asset not related to credit creation processes. It has no central issuer and does not represent anybody's liability. It implies that its quantity cannot be adjusted to variations in demand, and it does not come with anybody's promise to convert it into official currency at a certain rate. (Christian B & Beat W, 2014)

FINDINGS AND CONCLUSION

Bitcoin isn't directly unlawful. Under existing legitimate structures in almost every nation; Bitcoin offers critical monetary favorable circumstances over customary monetary standards and installment strategies; and governments don't as of now have the capacity to focus on the Bitcoin organize openly. To propose that legislatures ought not to endeavor to ban Bitcoin isn't a contention against control. Similarly as banks, which bargain in customary monetary forms, are managed in all the created nations around the globe, the individuals who hold stores, encourage exchanges, and process installments in BTC are conceivably open to the control of their home governments. In spite of the fact that new enactment will probably be expected to oblige these new sorts of organizations, close analogies will frequently be found in existing norms. There is no guarantee that Bitcoin will succeed. There are too many incomprehensible variables. The core developer of Bitcoin has stated that he would embrace this, as he supports competition and believes that it ultimately works for the best, whatever happens, one thing remains irrefutable: the world is forever changing, and governments and businesses must stay up-to-date of these changes if they are to sustain their positions of power in the future.

REFERENCES

Badev, A. I., & Chen, M. (2014). Bitcoin: Technical background and data analysis.

Bayern, S. (2014). Dynamic common law and technological change: the classification of Bitcoin, *Wash. & Lee L.Rev. Online*, *71*, 22.

Burnett, & John, (2015). The New Currency Dilemma U.S., *News Digital Weekly*, 16-16

Casey, M. J., & Vigna, P. (2015). Bitcoin and the Digital-Currency Revolution, *The Wall Street Journal*, *23*.

Chance, G. (2014). Will The People's Currency Become The Global Currency?, *Corporate Finance Review*, *19*(3), 6.

Christian, Beer, Beat, W. (2014). Bitcoin – The Promise and Limits of Private Innovation in Monetary and Payment Systems.

Colesanti, J. S. (2015). Trotting Out the White Horse: How the SEC Can Handle Bitcoin's Threat to American Investors.

David, G.H. (2013). The Evolving Bitcoin Landscape in Canada; *M2 Presswire.*

David, Y. (2014). Is bitcoin a real currency? An economic appraisal, *New York University Stern School of Business and National Bureau of Economic Research.*

Harper, J. (2014). Bitcoin and stability, *Foreign Affairs*, *93*(6), 241-242.

Hochstein, M., 2015, Jan 29. The Cryptocurrency that Dares Not Speak Its Name. American Banker , 15, ISSN 00027561.

Satoshi Nakamoto. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System.

Seetharaman.A,Saravanan,A.S,& et.al.(2017). Impact of Bitcoin as a world currency, *Accounting and Finance research,* http://afr.sciedupress.com.

Tuckerman, Misha. (2015). Forthcoming. The Block Is Hot: A Survey of the State of Bitcoin Regulation and Suggestions for the Future, *Berkeley Technology Law Journal*, 30.

Weber, B. (2016). Bitcoin and the legitimacy crisis of money, *Cambridge Journal of Economics*, *40*(1), 17-41.