

Role of Bit coin in Indian Economy-A brief study

^[1] Kapil Sharma, ^[2] Harshita Gupta, ^[3] Leena Soni
^{[1][2][3]} Indian Institute of Management, Indore, Madhya Pradesh

Abstract:--**Objective of the Study:**

The article focuses on the Bitcoin adoption in India and mentions brief information on the Bitcoin crypto currency, the scope of the adoption of Bitcoin in the country and some challenges to Bitcoin adoption concerning Rupee exchange as well as security and privacy concerns. This article is an outcome of the exploratory study on the perception and role of Bitcoin in the Indian economy and its impact on society with a special emphasis on India. The overall reaction is obtained from various groups in the sample. This paper highlights and discusses the issues on both sides of bitcoin mainly in interest of financial organizations and economists with a prospective transformation, with an application of advanced technology, and revolution with a digital currency.

Key Words:-- Bitcoin, Cryptography, Digital currencies, Indian Economy, Smart City.

RESEARCH GAP AND PROBLEMS

Bitcoins have gained great popularity in recent times as there is a growing trend of businesses accepting bitcoin as a form of payment. BITCOIN is an imperative term which is actively reported by various media and discussed amongst the likes of economic and financial analysts. How we define bitcoin or what is Bitcoin? It is a digital currency which serves as a decentralized financial open source software and provides an optimal combination of cryptography (hence, the term crypto currency for Bitcoin is also apt), digital encryption, online transactions and peer-to-peer networking. It can be used for transaction of money or as a protective cache or depository of digital money and is free of service charges. In layman's terms bitcoins is a form of virtual currency which means, if you own bitcoins, you do not have to physically purchase goods by handing notes or tokens to the seller. Thus bitcoins are used for electronic purchases and transfers. A person can use bitcoins to pay friends, merchants, etc. The advantages of using bitcoins which can be widely mentioned are very quick payments worldwide stop of inflations caused by governments trying to solve their own problems or high level of transactions privacy.

“Mining” [1] in the world of Bitcoin is transaction processing, in which transaction records of current Bitcoin public ledger, known as blocks, are added to the record of past transactions, known as the block chain. Every single transaction be it of present or past - and the ownership of every single bitcoin in circulation is recorded in block chain. The people who constantly verifying the block chain, ensures that all the information is correct and is updated each time a transaction is made, are called 'miners'. Bitcoin provides a reward in exchange for the mining services provided by several “miners” throughout the world. This is a necessary incentive, as without the miners, the Bitcoin technology wouldn't be able to operate. For being an effective miner, specialized & high-performance equipment is used. For even more efficient use of resources, mining “pools” are created. A miningpool is basically a number of miners mining on blocks as a group. Even though the blocks are mined faster, the rewards have to be divided in proportion to the efforts put in by individual miners as compared to the entire group.

PROBLEMS

- Acceptance of Bitcoin in Indian Market
- Perception of the Bitcoin amongst individuals

- Reaction of Indian Market experts
- From investors perspective

FINDINGS OF THE STUDY

As per the discussions and forum on bitcoin it is implicit that all the stakeholders in the society have expressed miscellaneous opinion which are predominantly negatively biased reports.

It is inferred that though Bitcoin may have its drawbacks like every new technology does, it can serve as a great tool from social, economic and financial point of view. Therefore this research and work is an attempt to project on both sides of the Bitcoin taking into both internal and external factors into consideration.

PURPOSE AND SCOPE OF RESEARCH

The purpose of this work is to explore the use of Bitcoin in India to further the cause of technological advancement, encourage free trade and transactions, and store monetary sums in a safe repository. The scope of this research is limited to the population of India. The findings of this research are limited to India, as the location is a case study not the subject of study. This work can be appropriately be used for the economies of other countries, keeping economic variables in mind.

RESEARCH METHODOLOGY AND DATA COLLECTION

This paper is an exploratory study through offline questionnaire method based on purposive sampling technique in society – individual respondents. The sample has been surveyed through a detailed questionnaire that assesses the basic awareness of Bitcoin and the

questions are designed to highlight identified variables.

The mode of survey is offline questionnaire or personal face-to-face meetings to collate data. This form of interaction also reduces the overall cost of the research and keeps with the time limitations. The sample size is 50

The sample pool consists of economic and financial professionals of Bitcoin phenomenon from over the world, executives of financial firms in India. This form of interaction also reduces the overall cost of the research and keeps with the time limitations. The former instrument has been chosen for effective data collection and its analysis. The offline questionnaires have been circulated.

STATISTICAL TOOL

Hypotheses have been framed to explore the identified variables, followed by testing of the hypotheses through t- test. Two hypotheses have been formulated, of which t-test is applied

H1: There is a substantial difference in the average value of nature of work between the individual users who belongs to corporate and small own businessman's in terms of awareness of bitcoin.

H2: There is a substantial difference in the average value of individual users belongs to corporate and individual businessman's in terms of trust & growth.

RESULTS AND DISCUSSION

Hypothesis H1 facilitates a comparative analysis on whether the nature of a respondent's work – business professional or student or part-time worker – affects his/her awareness of the concept of Bitcoin. The values are not substantial hence this hypothesis has failed to be

rejected. From the study of the survey results, it is apparent that those who are professionals in the area of business, finance or economics have better awareness of Bitcoin as compared to students or part-time workers.

Hypothesis H2 attempts to draw a correlation between trust & growth.

CONCLUSION

Bitcoin has power to replace money. In order to do that, it must first grow into a more secure form of money. Interacting with other forms of online payment and involving the government in insurance policies for protection against theft, are suggested steps for Bitcoin to grow out of its instable stage. It is concluded that changes brought in the society are adapted steadily and rapid progress can be possible only through the efforts of showing all the stake holders the benefits of the risk of a single currency.

REFERENCES

- [1] Davis, Joshua (10 November 2011). "The Crypto-Currency". Wired Magazine. http://www.wired.com/magazine/2011/11/mf_bitcoin/all.
- [2] Nathan Willis, "Bitcoin: Virtual money created by CPU cycles", LWN.net. <http://lwn.net/Articles/414452/>, 2010.
- [3] Wei Dai, "B-Money", <http://www.weidai.com/bmoney.txt>, 1998
- [4] Nakamoto, Satoshi, "Bitcoin: A Peer-to-Peer ElectronicCashSystem", <http://www.cs.kent.edu/~JAVED/class-P2P12F/papers-2012/PAPER2012-p2p-bitcoin-satoshinakamoto.pdf>, 24 May 2009.
- [5] "Bitcoin P2P e-cash paper", <http://article.gmane.org/gmane.comp.encryption.general/12588/>.
- [6] Bonpasse, Morrison, "The single global currency – common cents for the world (2008 Edition)", MPRA Paper 14756, University Library of Munich, Germany, 2009
- [7] Why not just print more money?, About.com, [online], http://economics.about.com/cs/money/a/print_money.htm (Accessed: 13 March 2014).
- [8] Holdgaard, Lars, "Bitcoin Ecosystem", 2014.
- [9] Hosein, Imran, <http://www.imranhosein.org/> (Accessed: 13 March 2014).
- [10] Luk, V. (2013), "First ever Bitcoin ATM goes live in Vancouver, but experts warn of risks", The Canadian Press, 30 October 2013.
- [11] Greenberg, A., "WikiLeaks Asks For Anonymous Bitcoin Donations – Andy Greenberg – The Firewall – Forbes". Blogs.forbes.com, <http://blogs.forbes.com/andygreenberg/2011/06/14/wikileaks-asks-for-anonymous-bitcoin-donations/>, 2011.
- [12] The Freenet Project, "/donate", <https://freenetproject.org/donate.html>, 2011.
- [13] Dubai's Pizza Guys first to accept bitcoin payments, Arabian Business, [online] 2014, <http://www.arabianbusiness.com/dubai-s-pizza-guys-first-accept-bitcoin-payments-539012.html#>. UyKXOj- Szc (Accessed: 12 March 2014).
- [14] D. Grauwe, P. and I. Vansteenkiste, (2007): "Exchange Rates and Fundamentals: A Non-Linear Relationship?", International Journal of Finance and Economics, 12, pp 37-54, 2007.
- [15] S. K. Michael, "Hyperinflation", 2nd ed., Concise Encyclopedia of Economics, 1985.

[16] Controlled Supply, “Controlled Supply”, [online] 2014, https://en.bitcoin.it/wiki/Controlled_supply (Accessed: 7 April 2014)

[17] Myths, “Myths”, [online] 2014, <https://en.bitcoin.it/wiki/Myths> (Accessed: 6 April 2014)

[18] M. Gongloff, “Paul Krugman Trolls Bitcoin Fans. Guess What Happens Next”, [online] 2013, http://www.huffingtonpost.com/2013/12/30/paul-krugman-bitcoin_n_4518979.html (Accessed: 7 April 2014)

