



WHAT ARE EXACTLY CRYPTOCURRENCY TECHNOLOGIES AND BITCOIN AND HOW DOES IT IMPACT ECONOMIES?

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Abstract

Objectives of the research revolve around the idea of what cryptocurrency technologies and Bitcoin entail and how it impacts economies. Cryptocurrency being such a new concept is a novelty in itself, and this potential future currency and its impacts must be explored further. This concept is relatively new, with bitcoin dating back to 2009, made under the pseudonym Satoshi Nakamoto.

Keywords:- *Cryptocurrency, Bitcoin, Blockchain, Satoshi, Mining, Private and public keys, Block*

INTRODUCTION

Cryptocurrency is essentially a virtual currency and is guarded by cryptography, eliminating the possibilities of counterfeiting and double-spending. Cryptocurrency runs on blockchain technology which is a database technology. Blockchain technology is fundamentally comprised of blocks that are all attached by chains. These blocks contain data and are then connected in the chronological order of the added data. The problem with cryptocurrency is that it is still comparatively new and most of the population find it too intricate as possible users. People looking to use and invest in bitcoin and other cryptocurrencies don't even know where to start and doubt the anonymity factor. One of the latest publications includes one by Shangrong Jianga Xuerong Lib Shouyang Wangab that talks about "Exploring evolution trends in cryptocurrency study: From underlying technology to economic applications." The research paper's objectives scrutinize research hotspots and evolution trends of cryptocurrency. This paper was received on 8 January 2020, revised on 20 March 2020, accepted on 10 April 2020, available online on 4 May 2020. Another recently written paper by Malcolm Campbell-Verduyn explores the fundamentals of cryptocurrencies like bitcoin, their features and how to use them, and how cryptocurrencies impact economies.

Theory

The supposed founder Satoshi Nakamoto created Bitcoin as a response to the Great Financial Crisis. Depending on banks as an intermediate body for financial transactions, the world would then be succeeded by a peer-to-peer network system. This system wouldn't use a third party but would rely on algorithms to authenticate a transaction. Here is where blockchain technology comes into play. The technology stores transactional records and also secures transactions. Investors now look at Bitcoin as a form of inflation insurance where this insurance can also



include gold, precious stones, and more. Bitcoin is also transportable, where it can make any device into a virtual wallet. Even with all these attractive traits, some are still hesitant to invest in bitcoin, especially governments. Governments fear that cryptocurrency can be used with corrupt intentions such as money laundering or purchases of things such as arms and ammunition. This fear they have is viable, seeing their reasoning. Governments prefer using fiats which are the currencies set by themselves. These fiats have value because the governments claim they do, and even though this claim means nothing to the masses, the governments have a ton of control over these currencies. Governments can control the aggregate supply of money to either slow down or boost the economy, and this is done via banks. Bitcoin and other cryptocurrencies rule out the intermediae bodies, which are banks. This would then severely impact economies around the world. Governments wouldn't be able to track currency movements, transactions, and most efforts to control and trace crime would go down the drain. A paper by A. Seetharaman, A.s. Saravanan."Impact of Bitcoin as a World Currency."

[researchgate.net.https://www.researchgate.net/publication/317134650_Impact_of_Bitcoin_as_a_World_Currency](https://www.researchgate.net/publication/317134650_Impact_of_Bitcoin_as_a_World_Currency) (accessed May.13,2021) goes on to say how "There is no consistency in guidance on the legal, accounting, tax and audit-related standards. Thus, Regulation has become one of the most debated issues facing the digital currency industry. Bitcoin technology has many of the unique and unprecedented features that give it the potential to be disruptive and impacting a broad range of industries and institutions. The ability to send money anywhere in the world in minutes, its peer-to-peer decentralized nature of value transfer and its completely digital existence, makes effective regulation of digital currencies so challenging for governments and policymakers have no clear legislation on digital currencies, which makes the process even more complex." Governments wouldn't be able to control excess inflation, recession, and power over the currency, in general, would be lost, thus potentially being a loophole for crime to be committed. This briefly summarized the impact of bitcoin on the economy.

Experimental

An abundance of papers on cryptocurrency technologies has been written. An experiment by Yli-Huumo, Jesse, et al. "Where is current research on blockchain technology?—a systematic review." *PloS one* 11.10 (2016): e0163477. used systematic mapping study as the research methodology. After searching for relevant papers and screening them, they do a mapping study process where keywords are identified from the abstracts.

Result

Out of the 55 selected papers, 41 were selected as primary papers. The security aspect of bitcoin was one of the most common topics. Wasted resources and privacy were other topics that popped up.

Discussion

The security aspect talks about all privacy breaks and other incidents like scams and frauds like mining scams and more were thoroughly discussed. The wasted resources aspect talked about how bitcoin would need large amounts of energy to run on, and efficient use is not guaranteed. The study showed the papers to majorly talk about solving challenges that cryptocurrencies



currently face and how features can be improved and added to improve things like privacy, use the platform easier, and have stricter security.

<https://journals.plos.org/plosone/article/figure?id=10.1371/journal.pone.0163477.g003>

Conclusion

Bitcoin is an online currency that works on blockchain technology, and an intermediate body doesn't exist here. As advance as the technology is, it does come up with issues like privacy and security concerns. These concerns apply to the users as well as the economy. Not being able to track currency movement can be taken advantage of by criminals etc. Aside from these limitations, the advantages of bitcoin would include eliminating banking fees, discretion, and more. Overall, cryptocurrencies are an up-and-coming piece of technology, and as exceptional as they are, the challenges that come with them must be eventually faced.

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