

What and Why Bitcoins

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Abstract

Bitcoin is digital money that is rapidly gaining popularity as a payment system. Bitcoin is a virtual currency that can be generated through complex computer software systems with solutions shared on a network. Hardly three years into its existence, Bitcoin has already become world's most expensive currency. Bitcoin is on line currency that can be exchanged in virtual tokens for goods and services at places that accept it, similar to payments you make for purchase of goods and services in cash. Bitcoin has no serial number or any possible mechanism that could be used to trace it back to a buyer or seller. Bitcoins are not regulated neither they are real money and not backed by one and nothing. When you draw a cheque for payment of money from your account, it is withdrawn from your account towards payment by transferring from your bank. In case of Bitcoin, there is no central authority or middlemen involved other than the users that comprise the network itself. There is no central authority or middlemen involved in this peer-to-peer payment network. Money goes straight from you to whomever, through the Bitcoin P2P system, with no intermediary agency passing along the chips. Bitcoin is generated in the air and the process is known as "mining". Bitcoins are not government issued currency but they are digital currency issued by private parties and only circulates over the Internet. Bitcoin as digital currency accounts offer global users convenience and freedom by permitting the electronic movement of funds from anywhere in the world using a personal computer or mobile device. Bitcoins provide financial freedom and opportunity to individuals and global business. The present paper has been covered to know the Bitcoins, the identification of different Positive Effects, to present Negative Effects, to highlight the Opportunities and Challenges of Bitcoins and to present an overview of Bitcoins.

Keywords: *Bitcoin, Virtual Currency, Mining, Digital Currency, Internet, Middlemen, Individuals, Businesses.*

Introduction

Bitcoins are digital currency that data hunters mine out of a complex computer programme. Nobody prints them. Digital payments makes buying a smooth process, especially for international purchases, as exchange rate risks are fewer and cumbersome bank rules or fees are mostly absent. It also enables people to make payments in areas without banking access or where carrying cash can be dangerous. Latest additions to electronic payments is Bitcoins.

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tokens for goods and services at places that accept it, similar to payments you make for purchase of goods and services in cash. Bitcoin has no serial number or any possible mechanism that could be used to trace it back to a buyer or seller. There is no central authority or middlemen involved in this peer-to-peer payment network.

Bitcoin is nothing more than a mobile application or computer program that provides a personal Bitcoin wallet that allows a user to send and receive Bitcoins. To get or buy Bitcoin you must have a Bitcoin address. Bitcoin works in this manner for most users. Bitcoin is unique in that only 21 million units will ever be created which is not a limitation as Bitcoins can be divided up to 8 decimal places and potentially even smaller units if ever required. If average transaction size decreases, transactions can be denominated in sub-units of a Bitcoin, such as milli-Bitcoin.

Bitcoins are useful as a form of money. Bitcoin has the characteristics of money. Bitcoins are used as currency and value to Bitcoins comes only and directly from people willing to accept it as payment. A growing number of businesses and individuals are using Bitcoin.

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Bitcoin network is sharing a public ledger called the "block chain". This ledger contains every transaction ever processed, allowing a user's computer to verify the validity of each transaction. The authenticity of each transaction is protected by digital signatures, allowing all users to have full control over sending Bitcoins from their Bitcoin addresses. Anyone can process transactions using the computing power of specialised hardware and earn a reward in Bitcoins for this service. This is called "mining". Nobody owns the Bitcoin network. Bitcoin is controlled by all Bitcoin users around the world. To stay compatible with each other, all users need to use software complying with the same rules. Bitcoin can only work correctly with a complete consensus among all users. Therefore, all users and developers have a strong incentive to protect this consensus.

While it may be possible to find individuals who wish to sell Bitcoins in exchange for a credit card or PayPal payment, most exchanges do not allow funding via these payments methods. This is due to cases where someone buys Bitcoin with PayPal and then reverses half of the transaction. This is commonly referred to as a charge back.

Objectives of the Study:

1. To know Bitcoins.
2. To identify different Positive Effects.
3. To present Negative Effects.
4. To highlight the Opportunities and Challenges of Bitcoins.
5. To present an overview of Bitcoins.

Review of Literature:

Mohan Lavi (2013), stated that digital payments makes buying a smoother process, especially for international purchases, exchange rate risks are fewer and cumbersome bank rules or fees

are mostly absent. It also enables people to make payments in areas without banking access or where carrying cash can be dangerous. Bitcoins is one of the latest additions to electronic payments.

Geetha Padmanabhan (2013), expressed that with most transactions being effected online these days, the digital world is finding it convenient to shift to Bitcoins or virtual currency. Bitcoin, an all-digital, cryptographically-made currency with deep structure wide adoption and trading momentum. Bitcoins works well for the modern electronic era and is effectively controlled by its users who are willing to play by a single set of rules so they can protect their investments.

Sayantan Mukhopadhyaya BITCOIN is caught lot of attention from public and the experts Effort create crypto-currency have been a consistent aspiration for politically motivated people but before BITCOIN there has not been any successful effort so far. BITCOIN by its architecture and functionality is quite unique. This decentralized peer-to-peer Crypto currency as a non-human agent has a number of economic, legal and technical challenges, which need to be addressed. But definitely the adaptation of this new technology, which affects one of the primary social interactions (financial transaction), is growing in a huge rate. Also there is a certain policy vacuum in this space. But Bitcoin economy can be one of the technological game changers.

Satoshi Nakamoto, 2009, A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending.

We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.

Pierluigi Paganini and Richard Amores, 2013, Bitcoin is so different because nobody can control the flow of Bitcoin. Bitcoin will become available through mining using plain old math and crypto and that cannot be controlled. Bitcoin and other digital currencies save fees and the merchants make more money ... which transaction system looks more attractive to consumers and merchants.

Research Methodology:

The study is of descriptive research which brings out the importance of Bitcoins, to know about Bitcoins, the identification of different Positive Effects, to present Negative Effects, to highlight the Opportunities and Challenges of Bitcoins, to present an overview of Bitcoins.

Sources of Data:

The study is based on secondary sources. The secondary data is sourced from various Books,

Journals and websites etc.

Effects, Opportunities and Challenges of Bitcoins:

Bitcoin is online currency that can be exchanged in virtual tokens for goods and services at places that accept it, similar to payments you make for purchase of goods and services in cash. As such Bitcoins has the following positive effects and also negative effects with its own opportunities and challenges.

Positive Effects:

1. Instant Transactions
2. No Processing fees
3. Issuing Collectively by the network
4. Open source
5. Nobody owns Bitcoins
6. Offers exciting uses
7. Not covered by any previous payment system
8. No control by any Central Authority
9. Free application that generate Bitcoins
10. Accepting them free
11. No charge backs
12. Less Paperwork
13. Total amount is predictable and limited
14. Fast transfer of money
15. No need to rely on Central Authorities
16. Use of Software to regulate and control of supply of coins
17. Use of Cryptography
18. Transactions with other users are done through wallet
19. Protects against insolvency
20. Does not deal in physical currency
21. Inflation secured
22. No need to print

Negative effects:

1. Legal and Political issues might affect the Bitcoin market
2. Mining a block is difficult
3. Peer-to-Peer currency through computer network
4. Computational problem
5. Alternate method of creating money
6. Proof of work

7. Requires broadcast channel
8. Based on computer network system
9. Creates Crisis
10. Leads to credit crunch
11. Leads to Unemployment
12. Lack of Internet Facilities at all places
13. Most suited to Urban areas
14. No knowledge of Bitcoins
15. Banks fear the existence of digital currency
16. The number of Bitcoins in existence will never exceed 21 million
17. Use of Bitcoins for drug peddling and by anti social elements
18. Bitcoins work well for the modern electronic era
19. Danger of hackers making with virtual currency worth millions
20. Many allege Bitcoins are widely used for money laundering as well
21. The electronic currency has seen huge fluctuations in its value
22. They do not enjoy a legal tender status
23. No regulatory guidelines
24. Not a substitute to legal money
25. Regulators are only beginning to notice Bitcoins

Opportunities:

1. Offers exciting uses.
2. Everybody can buy.
3. No third party.
4. Designed currency.
5. Peer-to-Peer currency.
6. Use of Software to regulate and control of supply of coins.
7. Anybody can view codes.

Challenges:

1. Decentralised monetary system where money is created by the modes Peer-to-Peer network.
2. The Bitcoin generation algorithm defines, in advance, how currency will be created and at what rate.
3. Any currency that is generated by a malicious users that does not follow the rules will be rejected by the network and thus is worthless.
4. Monetary base cannot be expanded.
5. Bitcoins if widely used it leads to deflation encouraging individuals and businesses to

save than to invest in businesses and create jobs.

6. Bitcoins can only work correctly with a complete consensus among all users.
7. Bitcoins value comes only and directly from people willing to accept it as payment.
8. Money supply may be inflated as an amount of money as bail is required to become a server, which is lost if the server is to be dishonest.

Limitations of the Study:

1. The study is based on secondary data.
2. The study is descriptive.
3. The study is based on secondary data only.
4. The study needs to be viewed in the light of limitations.
5. In this study, we examined only Bitcoins strategies.
6. The paper limits to discussing Bitcoins.
7. No primary data used for the study.

Conclusion:

Digital payment makes buying smooth process, especially for international purchases, as exchange rate risks are fewer and cumbersome bank rules or fees are mostly absent. It also enables people to make payments in areas without banking access or where carrying cash can be dangerous. Bitcoin is one of the latest additions to electronic payments. These at times, all but substitute the use of the legal currency. In the Bitcoin world, transactions do not require names but digital wallet Ids, which make them more private than credit cards.

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