
BITCOINS: A critical Review

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Abstract:

Bitcoin is a form of a peer to peer digital currency which is created through computer based mining process and stored electronically. Bitcoin is not regulated by any central or monetary authority and is being in circulation since 2009 onwards.

The objective of this paper is to thoroughly evaluate bitcoins, i.e. what is bitcoins, its inception process, legal status among countries and the boom through which bitcoins is going through. This study is based on secondary data analysis and critical evaluation of research done by different competent authorities on bitcoins. Findings will help in understanding bitcoins in a better perspective and will help in creating awareness among the investors relating to bitcoins investments and its future growth outlook.

Keywords: Bitcoin, Virtual Currency, Legal Implications, Positive aspects, Future outlook.

Introduction:

Bitcoin is a cryptography based digital currency first described in a 2008 paper by a single or group of pseudonymous developer(s) by the name of Satoshi Nakamoto, who called it a “peer-to-peer, electronic cash system”. Bitcoin is also called as a crypto currency because it is decentralized and uses cryptography to control transactions and prevent double-spending, a problem for digital currencies. Once validated, every individual transaction is permanently recorded in a public ledger known as the block chain. Payment processing is done by a network of private computers often specially tailored to this task. The operators of these computers, known as “miners”, are rewarded with transaction fees and newly minted Bitcoins.

Bitcoins are stored by associating them with addresses called “wallets”. Wallets can be stored on web services, on local hardware like PCs and mobile devices, or on paper print-outs. While it is not the only virtual currency in the digital market (there are at least more than 1300), it is

by far the most popular one and accounts for more than 55% of the virtual currency market volume.

As Bitcoin is managed by a peer-to-peer network of users spread across the globe, it is decentralized and not regulated by any central bank. Bitcoins can also be transferred from one individual to another without mediating any

central authority and the system of Bitcoin is competent enough to keep record of every Bitcoin transaction as well as its tracking issuance. Also, unlike other currencies, the schedule and amount by which the Bitcoin ‘money supply’ increases is actually predetermined by a defined mathematical protocol of the network limiting to 21 million.

Mechanism of Bitcoin:

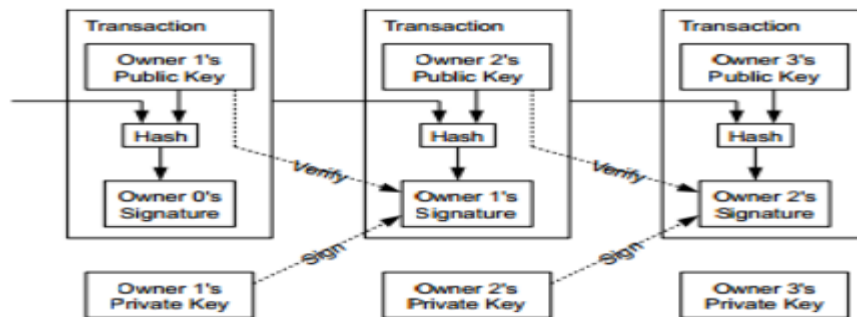


Chart of Bitcoin transaction taken from Satoshi Nakamoto's original paper.

To trade in bitcoins two things are needed a bitcoin address and a private key. Bitcoin address is random number which is visible whereas private key is kept secret. For example if x wants to send bitcoin to y than in that case x will use his private key to send a message with the input (transaction source), amount and output (y bitcoin address). Thorough x wallet

those bitcoin will travel to a wider network where miner will verify the transaction, putting into transaction block and solve it. Sometime transactions are done immediately and sometime they take some time to transfer. Hashes are the strings or the character associated with bitcoins address.

Bitcoins Growth and Financial Implication:



Above chart show the enormous growth in bitcoins over the years from \$0 in 2009 to \$16668 on December 2017. Over the last five year the percentage growth is +123,205.51%.

Growth percentage over the years:

| | | |
|-------------|-----------------------------|------------------------------|
| Last 1 year | +\$16,115.07(Dollar change) | +2,071.58%(Percent change) |
| Last 2 year | +\$16,459.44(Dollar change) | +3,796.55%(Percent change) |
| Last 5 year | +\$16,879.28(Dollar change) | +123,205.51%(Percent change) |

The above growth pattern and high percentage growth rate prompts to question the reason for such high growth rate:

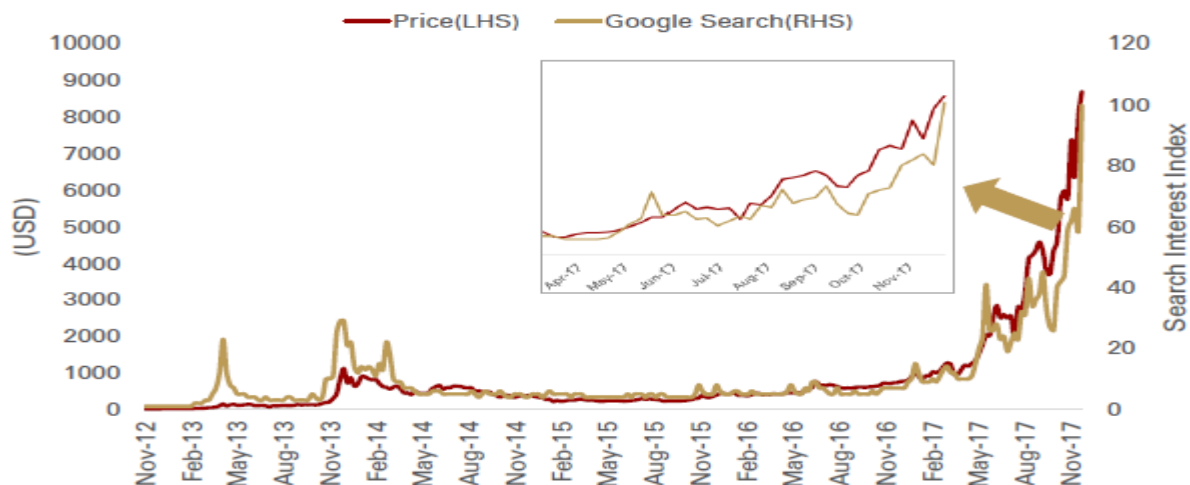
The main reasons attributed for the high surge in bitcoins price are summarized below:

- Consideration of bitcoins as a legal tender in Japan
- Reinstating of bitcoins at Chinese exchange
- Russian positive attitude toward crypto currency
- Removal of GST by Australian government on bitcoins.
- Introduction of additional Initial coin offering gateways
- High speculation and fluctuating prices is another reason attributed by the researcher for rise in bitcoins prices.
- High demand by investor also creating upward pressure on bitcoins prices.

- High media coverage and increased advertisement is another reason for bitcoins growth
- Mining complexity increases the cost of processing and which is affecting the prices of bitcoins
- Changes in bitcoins prices in different countries creating hedging opportunity and thus affecting the price rise.
- Constant Supply of 21 million bitcoins also creating demand pressure and thus affecting prices surge.

- Corporate interest in the Bitcoins enabled technology has also attributed a surge in bitcoins value.

Apart from the above reason there is another reason i.e. the relation between Google search and the rise in bitcoins prices. Thus, emphasizing the role of media frenzy and investor preferences in bitcoins price surge.



From the above chart we can see that from 2012 onwards Google search and bitcoins prices are showing 90% similarity in their trend.

Bitcoin Bubble and Implications:

Bitcoin is a bubble or not it can't be said with surety as despite the odds the prices of bitcoins

are constantly rising from 35\$ in 2013 to around 16000\$ in 2017 and the rally is still going on. There are certain issues which needs a consideration like firstly even though the cost of

mining of bitcoins in increasing and for miners bitcoins are now not so profitable still prices of bitcoins are increasing.

Secondly the market shares of bitcoins are still on the fall from 91% in 2016 to currently around 59.4%. Apart from this taxation policy of digital currency also makes bitcoins unfavorable to invest, hold or transact despite these odds bitcoins prices are rising suggesting the rise to be speculative. Investors are trading in bitcoins only with the perception of rise in future prices. As bitcoins prices cannot be related with any fundamental value so naming it bubble won't be

correct yet this can be concluded that bitcoins rise in price is speculative in nature and investing in bitcoins requires a careful investigation and analysis.

Legal Status of Bitcoins:

Legality of bitcoins is a serious issue as many developed countries have given bitcoins a legal status, some countries have considered bitcoins as commodity, some countries are applying taxes on bitcoins, some countries have adopted a neutral status on bitcoins transactions and some have totally banned bitcoins as crypto currency.

Chart describing legality of bitcoins subjected to certain countries:

| Country | Legal Status |
|---------------|--|
| United States | Positive status on bitcoins |
| Canada | Positive status on bitcoins, transaction considered as Barter system |
| Australia | Positive status |
| Uk | Positive status |
| Singapore | Positive status |
| Japan | Positive status |
| Israel | Positive status |
| China | Positive status |
| Russia | Positive status |
| Nepal | Illegal |
| Bangladesh | Illegal |
| India | RBI has given no stance, no licensing, no registration, no regulation governing virtual currency |

Conclusion:



So from the above analysis we can conclude that although bitcoins has seen a huge surge from its initial opening, yet this increase has no strong substance behind it except different countries are becoming more open for virtual currencies trading.

Despite falling market share of bitcoins and increasing cost of bitcoins mining, bitcoins prices are seeing an upward trend suggesting more of speculative motive which we can also relate with the google search trend and bitcoin price movement trends.

Thus through this study this can be suggested that increasing dominance of other crypto currency like Ethereum, Litecoin who are more energy efficient and more suitable for smart contract execution, the future of bitcoins is bleak and the high increase in price is more of speculative in nature and considering fixed supply of bitcoins this price rise cannot be considered as permanent. So even though bitcoins or rather crypto currency is having certain favorable aspects yet without any underlying substance investing more on

speculation won't be a good choice for the investors in the long run.

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