

Things To Know About Bitcoin

What is Bitcoin and who created it?

- Bitcoin is world's first Peer to Peer Electronic Cash System invented by a person using the name Satoshi Nakamoto. No one knows who Satoshi Nakamoto is. Recently it is believed that Satoshi is not an individual but a group of people. Bitcoin is a virtual currency. It doesn't exist in a physical form at all. It uses cryptography and is generated by a computer program. It is quite different from physical currency, also known as Fiat currency, which is usually issued by a Central Bank (like Rupees in India issued by Reserve Bank of India).

How is Bitcoin reliable when it is issued by a software program and not by a reliable institution like RBI?

- Bitcoin uses cryptography which is the practice and study of techniques for secure communication / transactions in the presence of 3rd parties called adversaries whose aim is to prevent such secure communication / transactions. It uses a technology called Blockchain or Distributed Ledger Technology (DLT). The program written by Satoshi Nakamoto resulted in creation of Blocks every 10 minutes. Each Block contains predefined number of Bitcoins, currently it is 12.5 Bitcoins (initially it was 50 bitcoins in 2008, it reduces by half every 4 years). The new Block is linked to the previous Block and to all the Blocks created on the Bitcoin network including the first Block called as Genesis Block. By using this process, it forms a chain called Blockchain. Hence if a transaction is changed in a particular Block it impacts all Blocks and everyone in the network comes to know of it.

All Bitcoin related transactions are contained in the common ledger which is available to all participants in the Bitcoin network. These participants are called as Nodes or Miners. Ledgers that maintain the Bitcoin transactions are contained in the Blocks.

The Bitcoin security is further strengthened by a protocol called Secured Hash Algorithm (SHA 256). Every Block contains a specific hash value which represents the data it contains. Technically it is possible to manipulate Bitcoin transactions but the cost of manipulation exceeds the rewards. As a result, Bitcoin is reliable without any intermediary. It digitizes the trust (trust is contained in its software code) and promotes disintermediation – a world without any intermediaries or middle parties.

How many Bitcoins are available in the world today? Will there be unlimited supply of Bitcoins? Does Satoshi Nakamoto own any?

- There are 16.76 million Bitcoins in circulation today. Only 21 million Bitcoins will be produced by the software written by Satoshi Nakamoto. The last Bitcoin will be produced by the software in the year 2140. This software cannot be altered or manipulated by anyone to produce more Bitcoins. Thus, Bitcoins like Gold is limited in supply. It is established that Satoshi owns roughly 1 million Bitcoins. At today's value of Bitcoin, Satoshi's holding is worth USD 13.5 billion. It is also estimated that FBI owns 1.5% of overall Bitcoins in circulation.

How is Bitcoin price set? Does anyone control it?

Bitcoin price is determined by Supply and Demand. 64% of Bitcoins have never been used and might never be used. It is believed that a small portion of Bitcoin community owns significant amount of Bitcoins. Hence the supply is limited. With Bitcoins becoming mainstream, more and more people willing to buy them, the price is expected to go up. However, when whales (term used to represent people who own large quantities of Bitcoins) go shopping they may sell the Bitcoins on the exchange to obtain Fiat currency.

Bitcoin prices drop during this period. Sudden decline in Bitcoin prices around 20th of December is on account of shopping by these whales.

How can I acquire or own a Bitcoin?

Bitcoins can be acquired through two methods – 1) Mining Bitcoins & 2) Buying them on Cryptocurrency exchanges

1. Mining Bitcoins – Mining can be accomplished in two ways – a) By looking for new Blocks of Bitcoins that can be achieved by estimating the hash value of new blocks. To estimate this value, significant computing power is required and also access to electricity that can run this computing power. The miner who estimates the hash value correctly is rewarded with ownership of new block that currently contains 12.5 bitcoins.

b) By validating the transactions that occur on the Bitcoin network, the miners are essentially validating that people who spend Bitcoins are the owners of such Bitcoins and there is no double spending. They maintain a record of these transactions and add them to the ledger so that it is available to everyone in the network.
2. Buying on exchange – Bitcoins are traded in over 2000 exchanges in the world. In India, Bitcoins are available in over 5 exchanges – Zebpay, Unocoin, Coinsecure, Koinex & Coinome.

Are Bitcoin prices in India on a par with international prices?

Bitcoin prices in India are higher than those in international markets, owing to limited supply. The Indian prices are usually higher by 18% to 25%.

Do merchants accept Bitcoins as form of payment?

In USA over 100,000 merchants accept Bitcoins as a form of payment. Wordpress, Subway, Microsoft, Reddit, Virgin Galactic, Expedia, Zynga, Bloomberg are some of the famous brands that accept Bitcoins as form of payment. Several countries like Japan, USA have recognized Bitcoins. But, Bolivia, Ecuador, Kyrgyzstan, Bangladesh, Nepal and Morocco have banned Bitcoins.

Should I invest in Bitcoins? Are there any other cryptocurrencies like Bitcoins?

- Bitcoin is rapidly evolving as an alternate asset class all over the world. However, it is a very risky asset class, given the rapid fluctuations in its price. One should invest in Bitcoins as many as one is willing to lose. Such investment should be taken up after understanding them fairly well. Also, Systematic Investment Plan (SIP) is the best way to start the investment.

Yes, there are over 1400 other currencies like Bitcoins. Some of the popular ones are Ethereum, Bitcoin Cash, Bitcoin Gold, Litecoin, Ripple etc.

Is Bitcoin legal in India?

All the Bitcoin exchanges in India are registered companies. RBI neither encourages them nor discourages them. Bitcoins and cryptocurrencies are currently not regulated. They are like how Peer to Peer lending was before RBI issued the regulations covering them.

Can I buy Bitcoins without disclosing my identity in India?

All exchanges in India insist for KYC or e-KYC. They will sell Bitcoins and other cryptocurrencies only after the customer provides – 1) IT PAN Number, 2) Identity Proof and

3) Address Proof. Hence, one cannot buy Bitcoins or other crypto-currencies without disclosing one's identity.

How much is the minimum amount required to buy Bitcoins?

The smallest fraction in which Bitcoin is available is 0.00000001. It is called as Satoshi and equals Rs 0.009. In India one can buy Bitcoins even with Rs 1,000 on the exchanges.

How are profits on Bitcoins and other Crypto-currencies charged in India?

Income Tax authorities in India have not provided any provisions or rules currently to tax profits. There are no short-term or long-term capital gains provisions as applicable for profits on other assets like equity shares. One is required to disclose the profits voluntarily under "Other income" and apply the individual tax slab bracket one is liable for.

What precautions should I take while in dealing or investing in Bitcoins?

One should buy Bitcoins only from registered exchanges, not from any individual, especially unknown individuals. To store the Bitcoins securely one should use offline wallets i.e. the wallets that are not on the exchange or use HD wallets (like Mycelium, Jaxx). All the HD wallets use 12 word master seed keys.