

## **Advantages of Bitcoins:**

### **1. Protection From Payment Fraud**

Bitcoins are digital currencies. It uses an algorithm and cryptographic protocols. This makes them impossible to counterfeit.

### **2. Reduced Possibility of Identity Theft**

Bitcoin transactions are completely anonymous. Bitcoin transactions do not require personal details or any sensitive information from either sender or receiver.

It helps prevent identity theft. Credit cards or debit cards use a pull mechanism where they request your credentials and initiate a payment then pull an amount from your account.

Bitcoins use a push mechanism where you initiate the payment and can send any amount to the receiver.

### **3. Immediate Settlement**

Bitcoin does not involve a third party to facilitate the transactions. Funds are settled immediately and once initiated cannot be put on hold or can be refunded.

### **4. Direct Transfer**

Transactions directly take place between users that is the sender and receiver. No third party involved there. Thus, it eliminates the fees for involving an intermediary.

### **5. Greater Liquidity**

While converting to other real-world currencies bitcoin retains most of its value while other cryptocurrencies lost their value.

### **6. International Transactions.**

Bitcoin is the easiest method to initiate an international transaction. It does not charge any extra fees and settle immediately to a receiver.

## **7. Independent**

Any political or governing authority does not regulate Bitcoin. It does not have political influence. Neither government nor any authority can freeze it or seize it.

## **8. Security**

Bitcoin has very strong security and it is impossible to counterfeit or cheat the bitcoin payment network. There will be 21 million bitcoin ever exist. It makes bitcoin value a long-term promise against other real-world currencies.

## **9. Blockchain**

Bitcoin transactions are tamper proof thanks to Blockchain.

### **Disadvantages of Bitcoin:**

#### **1. Scams and frauds**

Bitcoin is technically difficult and not easy to understand for a common citizen. It leads to in the name of bitcoin savings, bitcoin investment, and other bitcoin-related activities. Fake websites and apps are selling bitcoin and faking people.

#### **2. Black market activity**

Bitcoin is popular in the black market and criminals. Due to the complete anonymous feature, bitcoin is used in cyber hacking, drug deals, and black-market arms deals.

International and national legal systems do not yet have proper laws and authority over bitcoin making it harder to stop bitcoin-related black market activities.

#### **3. Price volatility**

After the FBI declared that, it would treat bitcoin as other legitimate financial services, bitcoin value skyrocketed. When a security breach happened in MT. Gox bitcoin exchange, bitcoin value fall more than 50 percent. This price volatility makes bitcoin investment difficult.

#### **4. No refund.**

Once payment is initiated and complete bitcoin cannot be held and refunded. It takes place directly between users and without an intermediary. So bitcoin cannot be transferred back.

#### **5. Future Cryptocurrencies.**

Bitcoin may be replaced by some other future cryptocurrency, which can address the disadvantage of bitcoin while retaining a superior secure network.

#### **6. Cyber hacking**

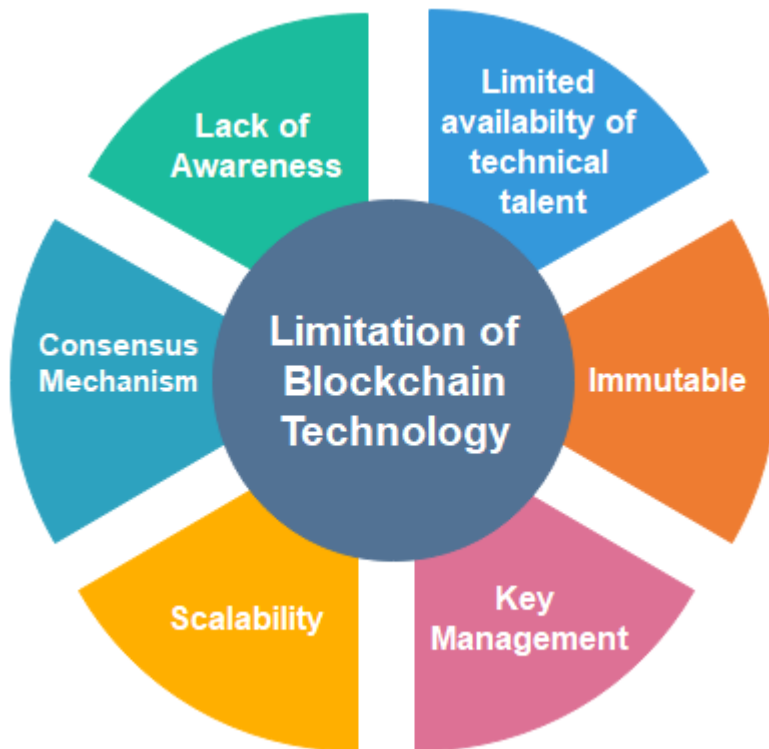
Hacking and illegal ransomware use bitcoin as a payment system to extort money from affected victims. This makes them untraceable due to bitcoins anonymous nature.

#### **7. Piracy**

Pirated file-sharing rated file-sharing services rely on bitcoins to run their networks.

#### **Limitation of Blockchain Technology**

Blockchain technology has enormous potential in creating trustless, decentralized applications. But it is not perfect. There are certain barriers which make the blockchain technology not the right choice and unusable for mainstream application. We can see the limitations of blockchain technology in the following image.



### **Lack of Awareness**

There is a lot of discussion about blockchain, but people do not know the true value of blockchain and how they could implement it in different situations.

### **Limited availability of technical talent**

Today, there are a lot of developers available who can do a lot of different things in every field. But in the blockchain technology, there are not so many developers available who have specialized expertise in blockchain technology. Hence, the lack of developers is a hindrance to developing anything on the blockchain.

### **Immutable**

In immutable, we cannot make any **modifications** to any of the records. It is very helpful if you want to keep the **integrity** of a record and make sure that nobody ever tampers with it. But immutability also has a drawback.

We can understand this, in the case, when you want to make any revisions, or want to go back and make any reversals. **For example**, you have processed payment and need to go back and make an amendment to change that payment.

### **Key Management**

As we know, blockchain is built on cryptography, which implies that there are different keys, such as public keys and private keys. When you are dealing with a private key, then you are also running the risk that somebody may lose access to your private key. It happens a lot in the early days when bitcoin wasn't worth that much. People would just collect a lot of bitcoin, and then suddenly forgot what the key was, and those may be worth millions of dollars today.

### **Scalability**

Blockchain like bitcoin has consensus mechanisms which require every participating node to verify the transaction. It limits the number of transactions a blockchain network can process. So bitcoin was not developed to do the large scale volumes of transactions that many of the other institutions are doing. Currently, bitcoin can process a maximum of **seven transactions per second**.

### **Consensus Mechanism**

In the blockchain, we know that a block can be created in every 10 minutes. It is because every transaction made must ensure that every block in the blockchain network must reach a common consensus. Depending on the network size and the number of blocks or nodes involved in a blockchain, the back-and-forth communications involved to attain a consensus can consume a considerable amount of time and resources.

