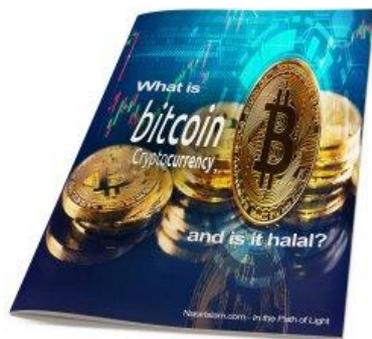


What is Bitcoin Cryptocurrency, how does it work and is it Halal?

Bitcoin is a decentralized digital currency which operates free of any central control or the oversight of banks or governments. Instead it relies on peer-to-peer software and cryptography.



The issue of bitcoin is a recent one which means it's not found or discussed by early scholars. Discussions about bitcoin and other forms of cryptocurrency will continue in the years to come. Bitcoin has taken over the cryptocurrency market. It's the largest and most well-known digital virtual currency today. There are others such as Ethereum, Litecoin, Cardano, Polkadot etc.

Unfortunately with such new events evolving, for some people or some of them is crystal clear but for others may require the collaboration of scholars, economists or people involved in such issues to deliberate and come up with conclusions.

Since, bitcoin is recent and new, there are lots of serious concerns when it comes to dealing with it. Whether it is:-

1. The Origin
2. Where it came from
3. The aspect of Sustainability and Security.

Crypto means concealed; secret. It is known that cryptocurrency was founded in 2008 by someone that is unknown and they say that his name is Satoshi Nakamoto a Japanese, described in a white paper published under the pseudonym **Satoshi Nakamoto**. Later on this person denies that he has anything to do with it. Another person **entrepreneur Craig Wright** from Australia came forward and claiming to be the one who founded **Bitcoin**. 2 May 2016

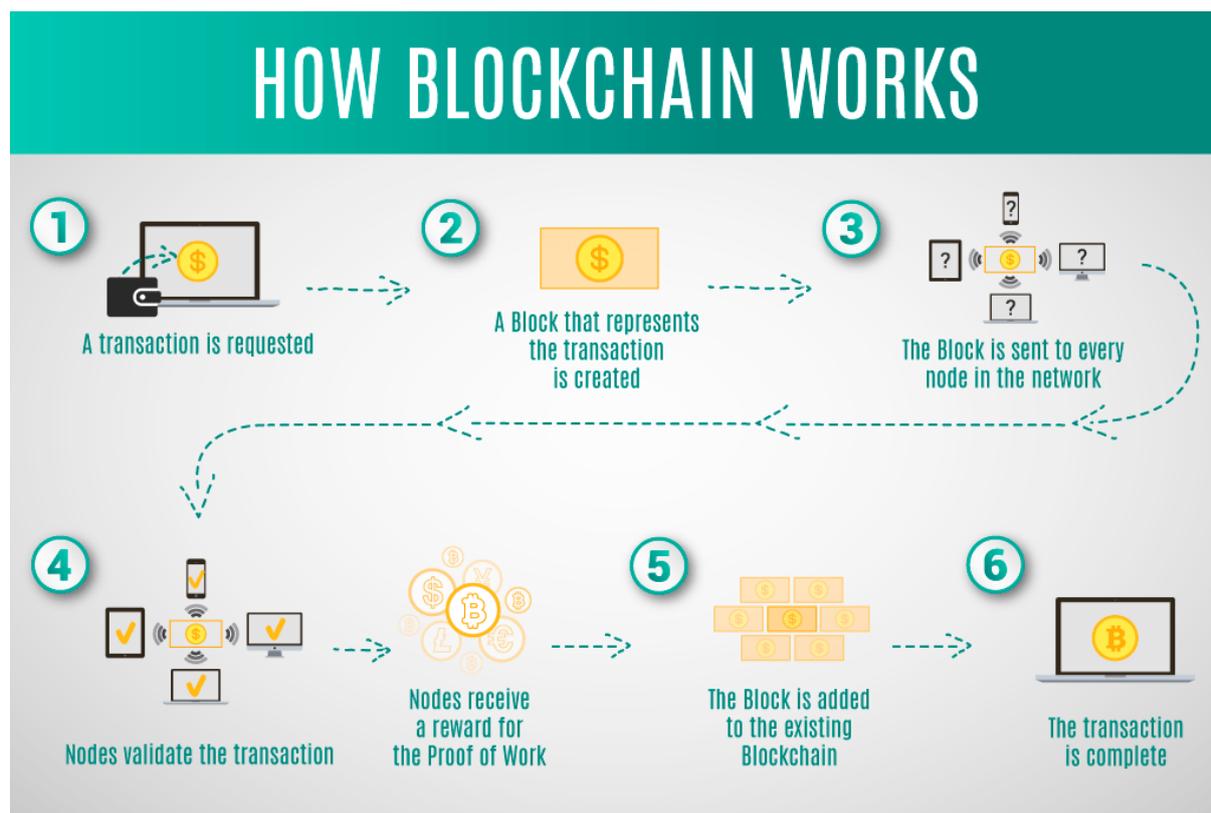
Generally speaking, no one knows the author's true identity — or if it's even a single person, rather than a group of people. The paper outlined how Bitcoin would work and the currency officially launched on **January 3rd, 2009**. According to Ollie Leech, learn editor at CoinDesk, a leading cryptocurrency news outlet.

Not only that but when it first introduced in 2009, Bitcoin was worth \$0. A year later, when early adopters began trading in the digital currency, it was valued at the fraction of a cent, something that is negligible. In **2011**, the cryptocurrency hit the level of \$1 for the first time. In couple of years it jumped to \$350 plus. As of today one bitcoin is equivalent to \$46,000 plus. This is absolutely ridiculous!

What is this? This is not something you can physically touch. This is not a coin, a bank note, it's not a deed or even a certificate. It is something a virtual, depending on peer to peer (electronic cash) the blockchain and the algorithm that governs it, which known to handful of people.

Who controls it? No one knows, it is anonymous and no one knows who they are. You cannot complain about it, you cannot pretend that there is justice and injustice because there is no one to talk to. So, it is as if you're throwing money in the vacuum not knowing if it will increase or decrease. But, most people don't care because they are looking for quick profit and gains. It's not logical of fluctuation of the price.

How does cryptocurrency work? Cryptocurrencies run on a distributed public ledger called blockchain, a record of all transactions updated and held by currency holders, recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is added to every participant's ledger. Units of cryptocurrency are **created through a process called mining**, which involves using computer power to solve complicated mathematical problems that generate coins.



- **How does cryptocurrency value increase and decrease?** Cryptocurrency gains value if **the demand for it is higher than the supply**. When a cryptocurrency is useful, people want to own more of it, driving up the demand. Since people want to use it, they don't want to sell it. This means there is more demand than supply and the value increases. For example, if there's a drought, the price of grain and produce increases if demand doesn't change. The same supply and demand principle applies to cryptocurrencies. **The direct costs and opportunity costs of producing a coin** are also factors which determine the value of a cryptocurrency. Bitcoin, for example, has a high cost of production. The resources and energy that have been put into the mining of bitcoin can be seen as a reason why the bitcoin has value.

- **How many bitcoins are in circulation?** There are approximately 1,000,000 Bitcoin miners in the world. As of June 26, 2021, there are **18.74 million bitcoins** in circulation. 18 Nov 2021
- **How many bitcoins are lost?** Approximately 20% of all Bitcoins are lost due to lost private keys, which represents a range of between 68,110 and 92,855 Bitcoin that are recoverable — or between \$3.6 and \$4.2 billion, a new study says Is Crypto Safe After Hackers Steal \$600 Million? 8 Sept 2021
- **How long does it take to mine 1 Bitcoin?** Satoshi is the reference for a fraction of a bitcoin. So for an example Fiat Currency a penny is equal to 0.01 in terms of pound and compare to a 1 bitcoin a Satoshi is equal to 0.00000001

Most Bitcoin miners join a mining pool, sharing the risks and rewards; In general, it takes **about 10 minutes** to mine one bitcoin. However, this assumes an ideal hardware and software setup which **few users can afford**. A more reasonable estimate for most users these days a single mining rig could take several months or years to mine one Bitcoin because of the changes in Bitcoin unit and algorithm.

Is it Currency or Commodity? This is something we still have to look into because if it's not a currency then it's not backed by people, governments, central banks or normal banks. So, you cannot say it's a currency because no one deals with it except a handful of people or handful of group. Only few developed countries allow it because it benefits to them from it by taxation, monitoring etc. But, majority of the countries around the world are not using it and about 42 country plus have banned it.

The biggest loophole in it is that the price goes way up and can also come way down. So, it's like bubble waiting to be inflated. This is what will happen soon. We all know that the maximum and total amount of bitcoins that can ever exist is **21 million**. **Once they reach 21 million what will happen?**

Fiat Currency - The term is derived from the Latin word fiat, which means a **determination by authority**—in this case, it's the government that decrees the value of the currency and isn't representative of another asset or financial instrument such as gold or a check. An example of Fiat currency is such as US dollar, Euro and so on. With your regular bank account the bank is in control using multiple databases to manage and store all transaction to keep track of what's going on for certain period of time. The bank will not store your records forever which means your record will disappear after certain number of years.

Cryptocurrency - When it comes to cryptocurrency, however, you can just use your **phone or computer** to download an app and create a **crypto wallet**, which will provide you with addresses, which is kind of like the equivalent to bank account number for each cryptocurrency. So you would have, for example an address for Bitcoin or for Ethereum and so on, whichever digital currency you prefer. Now in order to create that wallet, you did not need to show any kind of ID and no verification involved. So in this case you are anonymous with only codes given. The countries which accept bitcoin has regulation permission, the app requires identifications.

- **Mine Bitcoin** - You could mine bitcoin currency or Bitcoin specifically on your computer. Meaning generate Bitcoin from nothing and those coins will appear in your wallet and at this point they would still be anonymous, which means you would still be anonymous. All the Blockchain would show is that Bitcoins got generated based on your computer doing the work and that they got transferred or added to your wallet.
- **Buying Cryptocurrency using Bank** – You will need to pay for it somehow. So you would either wire money from your bank account, which can be identified since you have to provide your identity to open that account. Or you can use your credit card where the same thing applies. As a result, there will be a transaction that shows that Bitcoin or whichever other coin you bought has been transferred from the wallet of the exchange to your wallet. However, the exchange itself will have a record of you purchasing with your credit card, your PayPal account, your bank account, or whatsoever.

Can Cryptocurrency transaction be traced?

- **Yes**, Public Ledger or Blockchain. Transaction dealt with any of bitcoins within the ecosystem of crypto is all entirely trackable on a public blockchain. A block chain keeps permanent records of transaction, which means with cryptocurrency there is actually a permanent file that will never be deleted from the blockchain, which will mean that even in 20, 30, 50 years from now, there will be a trace as to what happened back then. Also when it comes to cryptocurrency exchange, depends on which website or app you are using it will ask for your identification.
- **No**, Anonymous payment keeping people's identity anonymous and has private features which deletes the previous transaction every time the new transaction is created. There's always going to be the case for some people to hide their identity and assets. You will have to put extra efforts because you cannot use regular exchanges and services, but you will need to find people that are willing to deal a little bit outside the system and you will need to find methods to deal with them anonymously, so where they don't have your regular email address, don't know your phone number, don't even know your IP address to narrow down the location you're living in. You will no longer be an anonymous when making silly, petty mistake when it comes to buying. For example buying from a company who uses Bitcoin such as Amazon requires your delivery address for your order, goods or items to deliver.

When it comes to **anonymous identity** it is very difficult to trace and open gateways to money laundering, drug money, haram money, you can put your money there (virtual system or network) and no one can trace you. This is probably why hacker's does cybercrimes and when they demand ransom it has to be in Bitcoins. Example Pirate of the Caribbean movie Disney was hacked and demanded ransom.

Has criminals been traced or caught for illegal activities using Bitcoin Currency? Yes. A lot of criminals and hackers around the world has been traced or caught by governments for illegal transaction, Bitcoin scams, Bitcoin laundering.

Any cyberattack, any virus attack or any threat can affect your computer system, wealth (digital asset) or so called currency down to the ground. So there is a lot of ambiguity.

What does Islam say? In Islam there are two types of money:

- 1) Natural money - Natural money refers to gold and silver which have intrinsic monetary value, they can also be used for other purposes such as jewellery.
- 2) Customary money - Customary money is of two types:
 - Commodity money which has natural value allowing it to have other uses such as salt, grains etc. but they do not have an intrinsic monetary value. A commodity can be acceptable money in Shariah if people attribute monetary value to it.
 - Fiat currency, this does not have any value of its own nor does it have an intrinsic monetary value. Fiat money gets its value from a government order which is acceptable in Shariah.

For an item to be accepted in Shariah as money (medium of exchange) it needs to fulfil three conditions:-

- 1) It needs to be considered as Maal in Shariah. Maal is what is normally desired and can be stored up and can be retrieved for the time of need (Commodity).
- 2) It must possess legal value (Taqawwum). This refers to an item being lawful to use in Shariah.
- 3) It must have monetary value (Thamaniyyah). This means that money must have two critical functions:-
 - Independent standard of value, this means that it should independently price and value goods along with having stability and widespread acceptance.
 - Unit of account, this refers to being a primary reference point and yardstick for people to use to post prices and record debts. It is a thing that goods and services are priced in.

The evidence from few authentic hadiths:-

- Narrated Ubadah bin As-Samit (may Allah be pleased with him) who said: The Messenger of Allah (peace and blessings of Allah be upon him) said: "Gold for gold, of equal measure; silver for silver, of equal measure; wheat for wheat, barley for barley, dates for dates, salt for salt, like for like. Whoever gives more or takes more has engaged in Riba." **[Sunan an-Nasa'i]**
- Narrated Abu Bakra (may Allah be pleased with him) who said: The Messenger of Allah (peace and blessings of Allah be upon him) said: "Don't sell gold for gold unless equal in weight, nor silver for silver unless equal in weight, but you could sell gold for silver or silver for gold as you like." **[Sahih al-Bukhari]**

- Narrated Abu Sa'id al-Khudri (may Allah be pleased with him) who said: The Messenger of Allah (peace and blessings of Allah be upon him) said: "Do not sell gold for gold, except like for like, and don't increase something of it upon something; and don't sell silver unless like for like, don't increase something of it upon something, and do not sell for ready money something to be given later, but hand to hand." [Sahih Muslim]

CONCLUSION:

Wake up to reality from virtual world! Money doesn't grow on trees or doesn't appear from thin air, but here it is from a computer playing and solving puzzles, very complex calculations, coding's... How many calculations? Only anonymous handful of people knows (developers, programmers, hackers). Once it unlocks, solves the codes the winning ticket is the Bitcoin.

Bitcoin fails to fulfil criteria due to its many risks and volatility. The source of this currency is still unknown, and it is surrounded by a great deal of mystery. Even now, the facts of the matter are not clear. We know that **developers, programmers and hackers have a big stake to it.**

Dealing in currencies is permissible so long as the exchange takes place in the same sitting as the contract is made. If I had dollars and you had euros and exchanged, this is permissible in Islam with one condition that is, it has to be hand to hand and has to be physical. I cannot say ok I accept this transaction and give you the money after half an hour. This is haram the transaction is void. It has to be simultaneous give and take.

In virtual currency you don't have this, the transfer is not simultaneous and you don't have anything physical to hold onto. Also no real wealth is created; rather it goes from one pocket to another when new people invest. **So these kinds of ambiguity make bitcoin or any other type of virtual currency haram in my opinion and I'm sure people with open mind will also agree. Muslims should not get involved in such dubious transactions simply to make quick money, a quick profit. This is not an Islamic concept.**

May Allah the Almighty forgive us for our shortcomings and guide us to that which He loves and is pleased with. Whatever written of Truth and benefit is only due to Allah's Assistance and Guidance, and whatever of error is of me alone. Allah Alone Knows Best and He is the Only Source of Strength.

Source:

Information from few scholars and anonymous friends who invests in cryptocurrency

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How Long Does It Take To Mine 1 BTC in 2021?

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