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# Understanding Blockchain Technology and Future Currency – The Cryptocurrency

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**Abstract:** Bitcoin is developed via way of means of an anonymous programmer and could be a gadget for virtual cryptocurrency and virtual payments in the near future. It is decentralized forex as it operates without a single operator. Transactions take region directly among users who minimize any intermediaries. Bitcoin is a unique type of trade when compared to regular banks. These transactions are proven by the means of community nodes and recorded in a public distributed ledger known as Blockchain. Blockchain is basically a continuously growing list consisting of records or public distributed ledger system called blocks linked and secured using cryptography. Every block has multiple transaction details related with it. It was introduced in the year 2009 by Satoshi Nakamoto, who is believed to be a Japanese man, born in year 1974. Given the features and universal nature of the Blockchain, which include decentralized ledger system, proof of work and cryptography, one can acknowledge that its implementation could result in far reaching changes in all domains.

Bitcoin charges are volatile, which means they can rise or fall brief with inside a brief period due to their youth economy. They are taken into consideration as high-risk assets; most effective their businesses can be repaid and also non-returnable. When Satoshi Nakamoto mined the first bitcoin block after then, many supporters have embraced trading and Bitcoin. Countries across the globe have now started to accept bitcoin as a legitimate forex mode for various payments. The purpose of this paper is to capture various facts of bitcoin, blockchain technology, types and countries that legalized bitcoins in their transactions as destiny forex and determine the possibility of various challenges to overcome.

## I. INTRODUCTION

In this global era of dynamic economies, where technologies are the maximum influential factor, humanity must be prepared unexpectedly. When our bills and purchases went virtual and earlier than the economic enterprise commenced to categorize them as the most crucial game-changers, there has been information about the virtual switching of currencies. It simply proves that technological advancement and innovation will show up to be a consistent supply and that the international should usually be geared up for change with an open mind. Control the formation of transactions, additional units and as well as confirm the transfer of assets. Cryptocurrencies are categorized as a subset of virtual currencies or can be also categorized as a subset of opportunity and digital currencies. Among common citizen, cryptocurrency is a brand-new concept, and the arena is split on whether it's miles technically or opens - Therefore, we will say that this definition may be used with inside the definition of cryptocurrency that's every other feature of the foreign money that humans have. Therefore, we can say that cryptocurrency asset may be referred to as the second method of the coin, that's virtual, for which an institution of humans has agreed that it is well worth it also. It consist of all of the basic elements of foreign money however cryptocurrency has no actual price and still, humans consider it as funding in their desires. In the case of cash exchanges like the dollar, euro, rupee we trade on everything.

## II. UNDERSTANDING BLOCKCHAIN TECHNOLOGY

Blockchain is defined as a mechanism of recording information through a way that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is actually a digital ledger of transactions that's duplicated and distributed across the whole network of computer systems on the blockchain. Each block within the chain contains a variety of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is kept to every participant's ledger. The decentralized database managed by multiple participants is called as Distributed Ledger Technology (DLT).Blockchain is a type of Distributed Ledger Technology in which transactions are recorded with an immutable cryptographic signature called a hash. This means that if one block in one chain was changed, it would be immediately apparent had been tampered with. If hackers wanted to corrupt a blockchain system, they would have to change each and every block in the chain, across all of the distributed versions of the chain. Blockchains like Bitcoin and Ethereum are constantly and continually evolving as blocks are being added to the chain, which dramatically adds to the security of the ledger.

## The Properties of Distributed Ledger Technology (DLT)

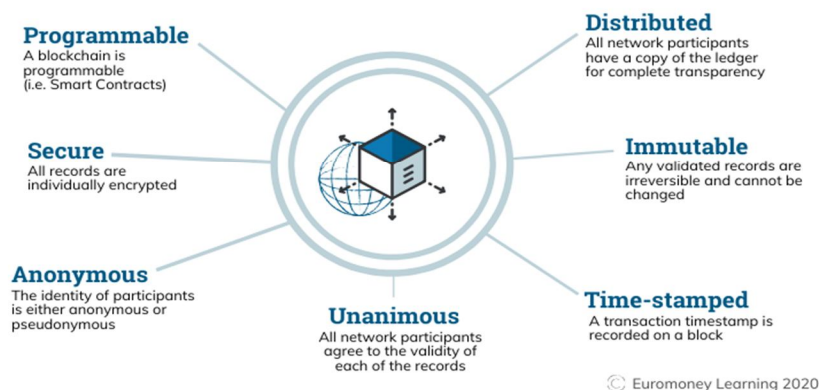


Fig.1) Properties of DLT (Distributed Ledger System)

Blockchain is known as the spine and the core technology working behind bitcoins and other cryptographic system. It was invented in the year 2009 by Satoshi Nakamoto, who believed to be a Japanese man. Although it still remains an unanswered who Satoshi Nakamoto is, one thing is for sure that he is one of the most intelligent people as he not only came up with such a complex system but also offered a method to all the ills in the current monetary system. The blockchain and bitcoin were one of the main features that led to the idea of decentralized digital currency system.

### III. FEATURES OF BLOCKCHAIN

1) *Peer to peer Network*: The collection of different nodes connected in the blockchain system together results in a Peer to Peer network. Anyone who is related with the blockchain system is a Node i.e. we are a complete node if we have a complete blockchain downloaded to the system as well as have a complete copy of the ledger as well. Apart from this, there are also some special nodes known as Miners, who validate the transactions and work on building a new block. All blockchains run on a distributed peer to peer network i.e. the ledger holding all information of the transaction is completely decentralized (distributed). In this network, a complete copy of the transactions is provided to everyone who is a part of the network. Now consider a situation in which A finds the transaction: B pays 5 BTC to C. after A identifies this transaction, he broadcasts it to both B and C that, it has been verified that B has enough balance to send it to C and thus the transaction has been accepted. After the validation of the transaction, both B and C forward the transaction details to their peers i.e. to the nodes they are connected to. These details keep propagating throughout the network by repeating the same process again and again. This is one of the major benefits that we earn. The transaction details which get propagated are nothing but a digital signature (which is highly encrypted and secure) telling each node that a transaction has taken place and the ledger needs to be updated. This concept proves to be highly functional if someone tries to manipulate the data to earn a profit out of it, as it is not possible in this type of network where everyone apart from the user has a complete copy of the ledger, thereby neglecting the changes made, and then finally maintaining the consistency.

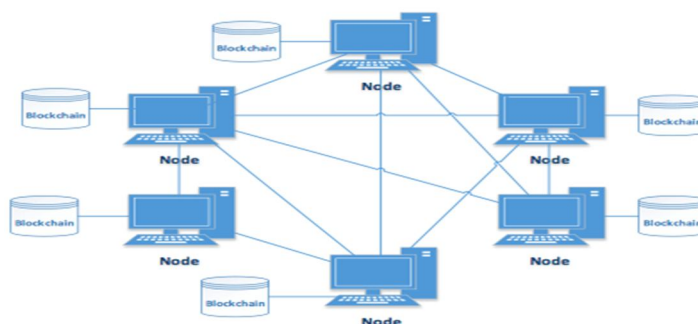


Fig.2) Peer To Peer Network (Block Chain P2p Network)



- 2) **Blockchain Program:** Blockchain basically was an implementation or solution to make rules within the blockchain. Multiple operations could be performed using blockchain. For example: storing id cards of all the citizens, validation of bitcoins and much more. A blockchain program can be implemented using any programming language. It was originally written using C++ and JAVA. The most preferred and popular programming language to write down a blockchain program is Solidity, since it's one among the most secure programming languages. Different blockchains have different programs in them. It is not compulsory that each blockchain should have only one program; it may also have multiple programs as part of it.
- 3) **Cryptography:** In order to make the transactions secure and immutable a public key and a private key cryptography is employed to make sure that the user can n't be identified by anyone. In addition to this different hash functions are also used to protect anything that is a part of the blockchain from modification. In method of cryptography two keys are used namely, public and private key. Once we encrypt our data using either of the keys, we can decrypt it using the other one. Digital signature is one among the major reasons which make sure that the transactions cannot be modified and are fully secure. We first feed the info, containing a public key of the sender, public key of the receiver and the amount of bitcoins which have to be transferred into a hash algorithm. This is a specific hash value which we can encrypt using private key. Once it has been encrypted, it is added as a digital signature to our document which is broadcasted in the peer to peer network waiting for someone to verify it. When we broadcast, the information is received by a specialist, who then takes the data from the document, hash it, and decrypt the digital signature and hash it as well. If the hash values obtained from decrypting as well as hashing the data present are similar, we can ensure that the transaction is valid transaction.
- 4) **Proof Of Work:** Is actually a mathematical proof in which a mathematical puzzle requires to be solved for the creation of another block. In other words, it is a computationally expensive puzzle needs to be solved to add a block to the blockchain. This is completed by the people known as Miners. Apart from solving this mathematical problem, the miners also validate the changes in the blockchain system. After successfully getting the Nonce i.e. the solution of the puzzle, miner get a desired hash value which is predetermined and the block is mined thereafter.

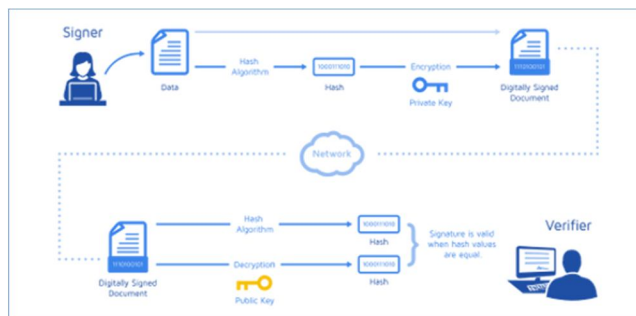


Fig.3) Proof of work

#### IV. APPLICATIONS OF BLOCKCHAIN

- 1) **Payment and Transfers:** It becomes quite easy for anyone to transfer their bitcoins or other cryptocurrencies to other users because of the rapid growth of the Bitcoin Wallet System. And these days we don't even need to bother about entering a public key, all we need to do is, scan a unique QR code which is present as a part of the blockchain wallet, and the complete transaction takes place smoothly. The security feature provided by the blockchain system completely alters the payment and transfer system. Transaction fee is optional. If we have a huge transaction to make and we need it to be performed immediately, in that case we may attach certain fee to it, which will ensure our transaction to become a priority. This is one of the ways of miners to earn a profit in exchange of their resources and the effort they put in. This does not imply that the transaction with no fee attached to it does not get validated. Apart from this, we also do not require any account number to be linked with our bitcoin wallet, give our complete details or attend to annoying calls from banks or other financial organizations. And anonymity is completely maintained.
- 2) **Banks:** In the banking domain, blockchain is currently overtaking as well as replacing the existing system of payment and transactions. Imagine what could happen if banks also implement blockchain, although it would increase the probability of reduction of jobs in these domains, but the hacking of the bank ledgers would become close to impossible due to the basic structure of blockchain. It will not only solve the problem of double spending but also decrease the bank crisis to a great extent. Since in case of blockchain, we get a clearer picture of what is happening with our money, it would also work as a shield against the issues like financial crisis.

- 3) *Internet of Things (IOT)*: Internet of things is one of the major current domain using the blockchain system to ensure that the transfer of data between the devices without the involvement of any sort of corruption or interferences.
- 4) *Development of Drugs*: The deployment of the blockchain concept in healthcare domain, in addition to facilitating a new drug development by providing convenient access to complete medical records of the patients, can also result in the decrement of the fake and forged drug inferences which presently costs the loss of approximately \$200 billion annually to the pharmaceutical companies.
- 5) *Supply Demand*: In this supply demand field, we can establish a consortium or a private blockchain, so that it can be modified only by the ones who are on the governing board. And the details can be viewed by anyone who is a part of the blockchain. Thus, both the suppliers and the demanders get a clearer picture of what is happening with the goods, where exactly it is or which stage of the whole process it is. IBM is one example of the same system which has faced a drastic change with respect to the supply chain market by the implementation of the idea of blockchain.

## V. UNDERSTANDING CRYPTOCURRENCY – THE FIRST APPLICATION BUILT UPON BLOCKCHAIN TECHNOLOGY

A cryptocurrency (or crypto currency or crypto) is a virtual asset designed to characteristic as a trade medium in which individual facts of coin possession can be saved in a ledger in a computerized database layout the usage of effective cryptography to steady transaction facts, track greater coin output, and confirm the switch of possession of coins. Usually, it doesn't exist in concrete form (physical form) and is not disbursed through a critical authority function. Crypto-currencies generally use decentralized authority as compared to centralized virtual currencies and critical banking systems. When a cryptocurrency is minted or mounted earlier than issuance or issued through a single issuer, it's far usually known as centralized. When implemented through decentralized control, which is type of a public economic transaction database, every cryptocurrency operates by disbursed ledger technology, generally a blockchain.

Difference Between Digital Currency And Cryptocurrency

DIGITAL CURRENCY	CRYPTOCURRENCY
Digital currencies are centralized, which means that transaction within the network is regulated in a centralized location, like a bank.	Cryptocurrencies are mostly decentralized, and the regulations within the network are governed by majority of community. There are also cryptocurrencies that are totally centralized and are run by the founding organizations.
Digital currencies are not transparent. With digital currencies, you cannot choose the address of the wallet and view all money transfers from the beginning of time. This information is kept strictly confidential and is private.	Most cryptocurrencies are transparent. Anyone and everyone is able to view any and all transactions made and received by any user, as all revenue streams are placed in the public chain – the blockchain. However, this does not apply when we talk about privacy coins, their whole meaning is to not share how much money has been sent where.
Digital currencies have a central authority which can deal with any problems or any issues. This central body can, for example, freeze or cancel transactions on the request of the participant or the authorities when needed.	Cryptocurrencies (in the case of decentralized ones) are regulated through respective community
Many countries have some legal framework against digital currencies, for example, the EU's <u>Directive 2009/110/EC</u> .	Right now, the same cannot be said about cryptocurrencies. In most countries, their official status is not defined and is not in use.

## VI. CRPTOCURRENCY TYPES -MAJOR MARKET LEADER

Cryptocurrency was designed to operate as a medium of exchange. The variety of crypto-currencies to be had on the Internet exceeds 1600 and is increasing. A new cryptocurrency may be created at any time. Some of the best types of Cryptocurrency are listed below-

- 1) *Bitcoin (BTC)*: Bitcoin, one of the maximum well-referred currencies, is believed to be an authentic cryptocurrency. It transformed into created in 2009 as an open-supply software program software. Using blockchain technology, bitcoin could customers conduct obvious peer-to-peer transactions. All customers can see the transactions; however, they will be protected by a set of policies within the blockchain. While everyone can see the transaction, top-notch the proprietor of that bitcoin can decrypt it with the use of the "private key" that has been assigned to every proprietor. Unlike the bank, bitcoin has no central authority.
- 2) *Litecoin (LTC)*: Litecoin changed into released in October 2011 as an opportunity for bitcoin. Like unique cryptocurrencies, Litecoin is a peer-to-peer cryptocurrency and open supply software program software challenge launched underneath the MIT / X11 license. Its advent and switch are based totally on an open supply cryptographic protocol and is decentralized.
- 3) *Ethereum (ETH)*: Ethereum is a form of cryptocurrency that changed into proposed in late 2013 via Vitalik Butyrin, a cryptocurrency researcher and programmer. It changed originally launched in July 2015. It is an open-supply platform primarily based totally on blockchain technology. While tracking the possession of virtual foreign places coins transactions, the Ethereum blockchain focuses on walking the programming code of any decentralized software program, which we could software program builders to use to pay transaction costs and offerings at the Ethereum community.
- 4) *Ripple (XRP)*: Ripple is a real-time gross agreement machine, foreign exchange, and cash switch community created via the American company Ripple Labs Incorporation. In 2012, Ripple transitioned into released, which then acts as a cryptocurrency and a kind of virtual charge community for the monetary transactions.
- 5) *Bitcoin Cash*: It is a form of virtual foreign places coins that changed into created in order to beautify the best capabilities of Bitcoin. Bitcoin Cash extended the dimensions of blocks, thus allowing greater transactions to be processed faster.
- 6) *Altcoins*: "Altcoin is a mixture of two terms alt and coin and consists of all bitcoin options. Bitcoins led to its fulfillment as the number one peer-to-peer virtual foreign places coins known. Many Well coins are looking to aim Bitcoin's perceived barriers. Bitcoin ought to have aggressive blessings for achieving fulfillment against Bitcoin.

### Types of Altcoins

- a) *Mining-Based-Altcoins*: Have a mining machine via which new cash is generated with the aid of using fixing tough trouble to unfastened up blocks.
- b) *Stable Coins*: Stable coins trying to beautify Bitcoin via decreasing volatility with inside the real exercising that is performed via attempting the price of the cash to current currencies.
- c) *Security Tokens*: These altcoins are associated with an enterprise organization and that they regularly release in a preliminary coin imparting protection tokens that resemble conventional stocks, and that they regularly promise a few forms of dividend like payout or possession in an enterprise organization.
- d) *Utility Tokens*: Utility tokens offer a declare on offerings, and they will be occasionally bought as a part of ICO. File coin is an extraordinary instance of a software program token supplied in an ICO.

## VII. SOME POPULAR CORPORATES USING CRYPTOCURRENCY

- 1) *Wikipedia*: Wikimedia, the corporation that operates the global's biggest open-supply encyclopedia, Wikipedia, accepts donations in Bitcoin. Payment is completed thru Bit Pay.
- 2) *Microsoft*: The Microsoft corporation allows using Bitcoin to pinnacle up your Microsoft account. In the past, the corporation also halted its recognition of cryptocurrency however quickly after resumed the service.
- 3) *AT&T*: AT&T is the primary main U.S. mobile provider to offer a cryptocurrency charge choice to clients thru Bit Pay.
- 4) *Burger King*: According to nearby news reports, Burger King Stores in Venezuela introduced a partnership with Crypto consumers in order to simply permit cryptocurrencies as a method of exchange. Customers will pay in Bitcoin, Dash, Litecoin, Ethereum, and Tether. In addition, the German department of Burger King has also started permitting Bitcoin on its internet site and mobile app by the year 2019

- 5) **KFC:** KFC Canada determined to simply accept Bitcoin for a restricted time in change for the “Bitcoin Bucket”. The corporation processed charge thru Bit Pay
- 6) **Overstock:** Overstock, a well-known American online store that sells large-price price tag gadgets at decrease fees because of overstocking, partnered with Coinbase a good way to permit Bitcoin bills for his or her online orders, etc.

#### Difference Between Cryptocurrency And Blockchain

	CRYPTOCURRENCY	BLOCKCHAIN
What is it?	It is a form of currency	It is a ledger
Main aim	To simplify and increase the speed of transaction without much of government restrictions.	To provide a low cost, safe as well as secure environment for peer-to-peer transactions.
Trade	It is limited to trading as a currency.	Blockchain has the ability to easily transfer anything from currencies to property rights of stocks.
Scope	The scope of cryptocurrency is limited.	Blockchain is more open to changes, hence has the backing of many top companies.
Strategy	It focuses on lowering the cost of influencers and also reduces the time of transactions but is less flexible.	Blockchain can be adapted to any changes and hence it may cater to different industries.
Status	Mostly anonymous and hence even though we can see the transactions in the ledger, they are numbers which are not in any particular sequence form.	Since blockchain works with various businesses it should have a compliance with KYC and various other norms. Therefore, blockchain is very transparent.

The given diagram shows how the transaction of cryptocurrencies takes place by using blockchain technology:-

### How does a transaction get into the blockchain?

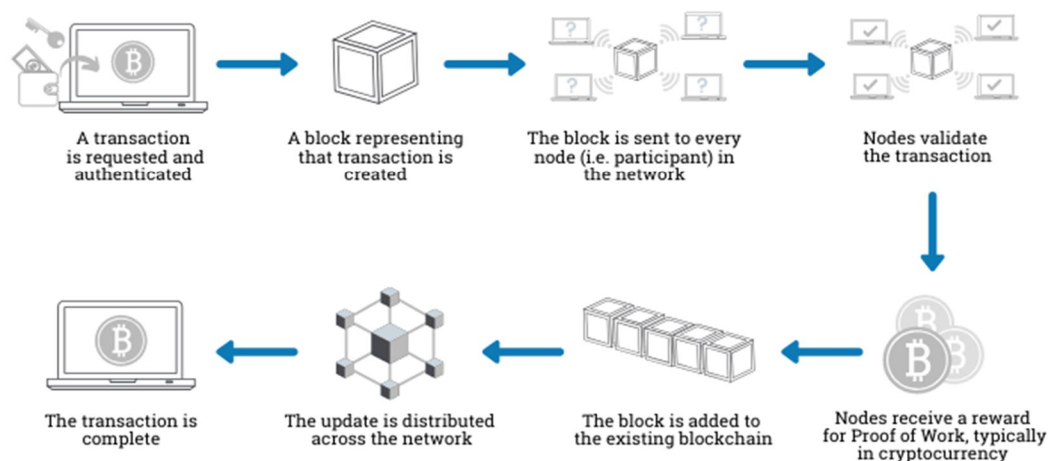


Fig.4) How the transaction of cryptocurrencies takes place by using blockchain technology

## VIII. FACTORS DETERMINING THE PRICE OF CRYPTOCURRENCIES

To summarize, the factors with huge impact over cryptocurrencies' prices are represented in Figure below. From now on, every factor is going to be investigated rigorously to understand what really is determining the rate of cryptocurrencies.

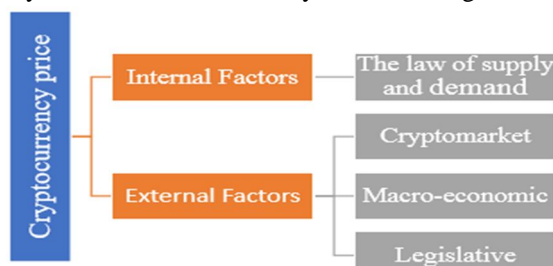


Fig.5) Factors determining the price of cryptocurrencies

1) **Internal Factors:** The Law of Supply and Demand - Initially, it is quite a straightforward knowledge that cryptocurrencies have to conform to the basics of economics: The Law of Supply and Demand new bitcoins can be generated at a fixed amount thanks to the bitcoin standard. As miner process blocks of transactions, new cryptocurrencies are generally added to the economy, and the rate at which new coins will be added reduces over time, which, in exchange, will result in circumstances where demand for cryptocurrencies grows faster as compared to supply, causing the price to rise. The decreasing distribution of coins can be perceived as unreal inflation for the overall cryptocurrency climate and on top of that, the system itself allows for the restricted amount of supply of cryptocurrencies for majority of the cryptocurrencies. When it comes to the case of Bitcoin, for example, the max supply amount is limited to 21 million and once this number is attained by miners, no new bitcoins will be generated as a result of mining.

2) **External Factors**

a) **Market of Crypto Currencies:** The widespread usage and preference of cryptocurrencies by giants have skyrocketed specially during worldwide pandemic: PayPal Inc, an American company operating an online payments system in a broad range of countries that ease online fund transfers, has allowed US users to purchase and sell cryptocurrencies directly from their account, called "Checkout with Crypto". Apart from this several giant firms, including Tesla Inc., have added cryptocurrencies into their saving portfolios or accepted them as a mean of exchange for their goods and services they provide. Considering these advancements, the public at large is much more spurred on purchasing cryptocurrencies. On the other hand, there are also some factors that have risks associated with cryptocurrencies market and the most important of them is the volatile structure of cryptocurrency markets. Historical price chart has revealed that cryptocurrency markets has seen ups and downs at a quick and swifter pace in cryptocurrency prices, when compared to the price of assets in commodity markets. The very same effect could also be seen with the price fluctuations right after CEO of Tesla's speculative public statements that boosted the value of Bitcoin. Taking into account this fact, whether cryptocurrencies reflect their sincere value or not appears to be overwhelmingly doubtful.

Macro-economic factors – these includes-

- Consumer Price Index (CPI)
- United States Dollar
- Gold Price
- US Federal Reserve's Interest Rate Policy

b) **Legislative Factors:** Although Bitcoin is decentralized and immune to central government control, the laws enacted by the latter would have a significant effect on the mechanism when they extend to cryptocurrency holders. Fears that can take place as a result of political announcements or actions may almost inevitably trigger Bitcoin's price to drop. As China, the world's biggest cryptocurrency industry, has made some controversial statements on Bitcoin and agreed to close down several exchange sites by the end of 2017, the price of Bitcoin plummeted. On the other hand, when it comes to one of the leading economies of the globe, the United States, economy, the instant price hike has still casting doubts over regulatory authorities on the ultimate classification. On the one hand, Securities and Exchange Commission tends to categorize cryptocurrencies as securities; whereas Commodity Futures Trading Commission is way more inclined to classify cryptocurrencies as a commodity, creating a deal of confusion among investors. That being said, a sea of compound financial instruments, that includes derivatives, has been utilizing cryptocurrencies as an underlying assets.



#### IX. COUNTRIES LEGALISED CRYPTOCURRENCY:

- 1) *Japan:* Japan was among one of the early adopters of bitcoin. Although many assumptions have made that the founding father of bitcoin is Japanese, nonetheless the fact is unknown. Japanese countrywide foreign money holds the most important marketplace percentage of bitcoin over, i.e., over 60% of the full bitcoin in circulation. There is unique law evolved via way of the authorities of Japan. Well, it has remained with inside the pinnacle function at account that 2017 after China prohibited cryptocurrencies.
- 2) *USA:* After Japan, the USA is the second-biggest adopter of bitcoin. The US Dollar holds bitcoin with a marketplace percentage of greater than 25%. You should purchase items and offerings at numerous locations within side the USA. In addition many bitcoin-primarily based corporations are set up inside the most powerful economic system within side the globe.
- 3) *South Korea:* South Korea is one of these international locations wherein using bitcoin is a felony. Trading and making investments in bitcoin and different altcoins are also felonies on these united states of America.
- 4) *Germany:* The authorities of Germany declared that bitcoin isn't a felony tender, however, its going to be used rather a shape of foreign money. The united states of America allow its residents to exchange and spend money on bitcoin. Many traders throughout the capital metropolis of Germany be given bitcoin bills.
- 5) *Australia:* Bitcoin is been a felony in Australia on account that 2017 the authorities declared that bitcoin could be handled as property. Additionally, the authorities have introduced that may be a concern to Capital Gains Tax. Now allow us to ascertain a variety of the famous international locations wherein bitcoin isn't a felony

#### X. ADVANTAGES OF USING CRYPTOCURRENCY

- 1) *Protection from Inflation:* The source code specifies the amount of any coin; like, there are only 21 million Bitcoins released in the world. So, as the demand increases, its value will increase which will keep up with the market and, in the long run, prevent inflation.
- 2) *A Fast way to Transfer Funds:* Cryptocurrencies has always kept itself as an optimal solution for transactions. Transactions, consisting both international and domestic in cryptocurrencies, are lightning-fast as well as efficient. This is because the verification needs very little time period to process as there are less barriers to cross.
- 3) *Decentralized:* The decentralization helps keep the currency monopoly free and in check so that no one organization can determine the flow and the value of the coin, which, in turn, will keep it stable and secure, unlike fiat currencies which are controlled by the government.
- 4) *Secure and Private:* The blockchain ledger is based on various mathematical puzzles, which are difficult to decode. This makes cryptocurrency much more secure when compared to ordinary electronic transactions. Cryptocurrencies, in order to achieve better security and privacy, use pseudonyms that are not connected to any user, account or stored data that could be linked to a profile.
- 5) *Currency Exchanges can be Done Easily:* Cryptocurrency can be bought using many currencies like the US dollar, European euro, British pound, Indian rupee or Japanese yen. With the support of various cryptocurrency wallets and exchanges, one currency can be converted into the other by trading in cryptocurrency, across different wallets, and with minimum transaction charge.

#### XI. FEW CHALLENGES TO CRYPTOCURRENCY

- 1) *Can be used for Illegal Transactions:* Due to the privacy and security of cryptocurrency transactions are very high, it's hard for the government to track down any user through their wallet address or keep tabs on their data. Bitcoin has been used as a mode of exchanging currency in a lot of illegal deals in the past, like buying drugs on the dark web. Cryptocurrencies are also used by some to convert their illicitly obtained wealth by a clean intermediary in order to hide its source.
- 2) *Data Losses can Cause Financial Losses:* The developers wanted to develop virtually untraceable source codes, strong hacking defenses, and impenetrable authentication protocols. This may make it safer to put money in cryptocurrencies rather than physical cash or bank vaults. But what if any user loses the private key to their wallet, there's no getting it back resulting in loss.
- 3) *Susceptible to Hacks:* Although cryptocurrencies are secure, exchanges may not that secure. Majority of exchanges store the wallet information of users to operate their user ID efficiently. This information can be stolen by hackers, giving them access to a large number of accounts. After getting access, these hackers can very easily transfer funds from these accounts.

- 4) *No Refund or Cancellation Policy*: If there is any dispute between the concerning parties, or if someone mistakenly sends funds to a wrong wallet address, then coin cannot be retrieved back by sender. This may be used by many people to cheat others out of their money and since there are no refunds, one can easily be developed for a transaction whose product and services they have never received.

## XII. CONCLUSION

Blockchain is trending technology that involves various mathematical algorithms and functions for the creation of a highly secure and a distributed ledger system which enables the execution of the transactions without the involvement of any financial organization. This is the reason why blockchain is often referred as a No Trust System i.e. you need not some third person or any organization for carrying out your transaction. On the other hand cryptocurrency the first application built upon blockchain technology offers a desired technique of charge, other than real cash, that permits clients to make monetary activities which include buying, selling, moving, and replacing easily. Cryptocurrency can carry more high-quality modifications to the e-Business and e-Payment sector. However, cryptocurrency doesn't get that lot of have confidence yet. Many concerns, demanding situations, and problems are present in lots of cryptocurrency platforms. Until cryptocurrency is being nicely controlled and managed, customers are required to take more precautions for the use of such virtual cash.

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