



## A STUDY ON CRYPTOCURRENCY IN INDIA

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### **Abstract**

*From a few years onwards cryptocurrencies and bitcoin grab a hot topic in the financial industry. Due to the rapid development of information and communication technologies, our daily life have been merged online and they become more flexible and more effective. A huge number of online users have activated virtual world concepts and created a new business phenomenon is cryptocurrency to facilitate the financial activities such as buying, selling and trading. A cryptocurrency is a digital currency designed to work as a medium of exchange through a computer. Globally known as digital coin and virtual currency. While cryptocurrencies are not likely to replace traditional fiat currency, they could change the way internet connected global markets interact with each other, clearing away barriers surrounding normative national currencies and exchange rates. The cryptocurrency has raised the eyebrows within the banking sector, government, stakeholders and individual investors. Bitcoin's framework has challenged many regulators, as most of them struggled to find ways to bring it under control. This led to some countries banning it or making it illegal, while some others remained observant and the rest worked out ways to tax and regulate its operations.*

**Keywords:** *Cryptocurrency, Bitcoin, Exchange rates, India, blockchain, encrypted.*

### **Introduction**

A cryptocurrency is an encrypted data string that denotes a unit of currency, it is monitored and organized by a peer-to-peer network called a blockchain, which also serves as a secure ledger of transactions, e.g., buying and selling and transferring unlike physical money, cryptocurrencies are decentralized, which means they are not issued by governments or other financial institutions. Instrument which is used as exchange of instruments to make the trade transactions as easy as possible to the market needs. A cryptocurrency is a digital currency designed to work as a medium of exchange through a computer network that is not reliant on any central authority, such as a government or Bank, to uphold or maintain it. Individual coin ownership records are stored in a digital ledger, which is a computerized database using strong cryptography to secure transaction records, to control the creation of additional coins, and to verify the transfer of coin ownership.

A cryptocurrency or crypto is a virtual currency secured by cryptography. It is designed to work as a medium of exchange, where individual ownership records are stored in a computerized database. The defining trait of a cryptocurrency is that they are not issued by the government agency of any country making them immune against any interference and manipulation from them.

Cryptocurrencies are created (and secured) through cryptographic algorithms that are maintained and confirmed in a process called mining, where a network of computers or specialized hardware such as Application- Specific Integrated Circuits(ASICs) process and validate the transactions. The process incentivizes the miners who run the networks with the cryptocurrency.

Bitcoin, Ether, Litecoin, and Monero are popular cryptocurrencies.



In simplistic terms, cryptocurrency is a digitized asset spread through multiple computers in a sound network. The decentralized nature of this network shields them from any control from government regulatory bodies. The term “cryptocurrency” in itself is derived from the encryption techniques used to secure the network.

### **Objectives of the study**

1. To understand the concept of cryptocurrency, its working, its types.
2. To analyze the legal status, challenges and opportunities of cryptocurrency in India.
3. To study the advantages and disadvantages of cryptocurrency.

### **Research Methodology**

This research paper is purely based on secondary data referring to various sources such as newspaper, journals, articles, websites and statutory reports.

### **Types of Cryptocurrency**

A cryptocurrency is a virtual currency which is based on blockchain technology. The number of cryptocurrencies available over the internet is over 1600 and growing. Bitcoin is currently the largest blockchain network.

#### **1. Bitcoin (BTC)**

Bitcoin is a cryptocurrency, a virtual currency designed to act as money and a form of payment outside the control of any one person, group, or entity, and thus removing the need for third-party involvement in financial transactions. It is rewarded to blockchain miners for the work done to verify transactions and can be purchased on several exchanges.

Bitcoin was introduced to the public in 2009 by an anonymous developer or group of developers using the name Satoshi Nakamoto.

#### **2. Litecoin (LTC)**

Litecoin (LTC) is a cryptocurrency created from a fork in the bitcoin blockchain in 2011. It was initially designed to address the developer’s concerns that bitcoin was becoming too centrally controlled and to make it more difficult for large scale mining firms to gain the upper hand in mining, while eventually unsuccessful in preventing enterprise miners from taking over the lion’s share of litecoin mining, the cryptocurrency has reworked itself into a minable coin and a peer- to – peer payment system.

#### **3. Ethereum (ETH)**

Ethereum is a global virtual machine powered by blockchain technology. It is most commonly known for its cryptocurrency. It was proposed in late 2013 by VitalikButerin , a crypto currency researcher and programmer.

Ethereum is designed to be scalable, programmable, secure, and decentralized. It is the blockchain of choice for developers and enterprises who are creating technology based upon it to change the way many industries operate and the way we go about our daily lives.



#### 4. Ripple (XRP):

Ripple is a cryptocurrency token designed to migrate transactions from central databases controlled by financial institution to a more open infrastructure while significantly cutting costs. XRP transactions are trustless, instant and cheap, putting them at an advantage for cross- border movement.

Ripple is a real-time gross settlement system, currency exchange, and remittance network created by Ripple Labs incorporation, a US based company. Ripple was released in 2012 that acts as both a cryptocurrency and a digital payment network for financial transactions. It's a global settlement network that is designed to create a fast, secure and low cost method of transferring money.

#### 5. Monero (XMR):

Monero is a digital currency that offers a high level of anonymity for users and their transactions like Bitcoin.

Monero is a decentralized peer- to – peer cryptocurrency, but unlike Bitcoin, Monero is characterized as a more anonymous or privacy oriented digital cash. Monero is a currency and can be exchanged for goods, services and other currencies, privately and with very low fees.

#### Advantages of Cryptocurrency:

Cryptocurrency has the following advantages:

- ❖ Funds transfer between two parties will be easy without the need of third party like credit/ debit cards or banks.
- ❖ It is a cheaper alternative compared to other online transactions.
- ❖ Payments are safe and secured and offer an unprecedented level of anonymity.
- ❖ Modern cryptocurrency systems come with a user “wallet” or account address which is accessible only by a public key and private key. The private keys only know to the owner of the wallet.
- ❖ A cryptocurrency transaction is generally a quick and straight forward process.
- ❖ Every cryptocurrency transactions is recorded in a public list called the blockchain, which is the technology that enables its existence.
- ❖ Funds transfers are compeed with minimal processing fees.

#### Disadvantages of Cryptocurrency:

Cryptocurrencies have the following disadvantages:

- ❖ The almost hidden nature of cryptocurrency transactions make easy to be the focus of illegal activities such as money laundering, tax evasion and possibly even terror- financing.
- ❖ Payments are not irreversible.
- ❖ Cryptocurrency exchanges are vulnerable to cyber attacks, which could lead to an irreparable loss of investment.
- ❖ Cryptocurrencies are not accepted everywhere and have limited value elsewhere.
- ❖ There is concern that cryptocurrencies like bitcoin are not rooted in any material goods some research, however, has identified that the cost of producing a bitcoin, which requires an increasingly large amount of energy is directly related to its market price.



### **What is cryptocurrency used for?**

Currently, the main purpose of cryptocurrency is for it to be used as an asset, like stocks or precious metals. Currently, Bitcoin is one of the most lucrative investment options. “Its value appreciation is identified as supremely dynamic and can prove to be an excellent avenue for capital expansion. However, one should be mindful while investing in cryptocurrency because of its volatile nature,” cautions Dahake.

Apart from being an asset, cryptos can also be used to buy regular goods and services. Several restaurants, flights, and apps accept it as a viable payment medium. “Currently people are using crypto projects for Minting NFTs (non fungible tokens). It is also being used in DeFi (decentralized finance) basically a bank which gives loan, insurance and other banking related tasks in a decentralized peer to peer lending system, says Varun Mayya, Founder and CEO, Scenes by Avalon.

In a few countries, cryptocurrencies are legal, and users can buy and sell them on exchanges where their company accepts them as payment for services. In countries where cryptocurrencies are illegal, they are also used for funding terrorism, money laundering, and more. Many countries have banned bitcoins and similar currencies due to their use in black market transactions, says Mayer.

The highly volatility in prices compared to a traditional currency makes it less likely to be used as a “store of value”. “Bitcoin is 10X more volatile compared to major currencies and hence it is becoming a speculative asset class with increasing interest from people,” according to HDFC.

### **The journey of Cryptocurrencies in India:**

Despite uncertainty around the future of cryptocurrencies in India, investments in the unregulated digital asset, especially Bitcoin, has shown a breathtaking upward trend since 2020. Data from various domestic cryptocurrency exchanges suggest that more than 1.5-2 crore Indians have invested in the asset class, hitting the \$10 Billion mark in November this year. The growing number of cryptocurrency adopters suggests a shift in the investment paradigm in the country that is known to invest more frequently in gold and other safer assets. Ahead of the much anticipated Cryptocurrency and Regulation of Official Digital Bill, the following are the journey of the virtual asset so far.

#### **2008- Inception of Cryptocurrencies:**

The journey of cryptocurrency started with the publication of paper titled “Bitcoin: A Peer to Peer Electronic Cash System” in 2008 by a pseudonymous developer by the name of Satoshi Nakamoto.

#### **2010: First Sale Using Crypto:**

Two years later, the first sale of an item using Bitcoin took place with someone swapping 10,000 Bitcoin for two pizzas. This attached a cash value to cryptocurrencies for the first time. Soon enough, other cryptocurrencies such as Litecoin, Namecoin and Swiftcoin began to emerge and the digital asset started gaining traction.

#### **2013: RBI Issues First Circular Regarding Cryptocurrencies:**

As crypto investments picked up in India too and exchanges including Zebpay, Pocket Bits, Coinsecure, Koinex, and Unocoin began springing up, the Reserve Bank of India (RBI) issued a circular warning users of the potential security-related risks pertaining to the use of virtual currencies in 2013.



### **2016-2018: Demonetization and RBI's Banking Ban on Crypto:**

The increases in preference for digital payments brought about by the demonetization experiment also gave an unintended boost to crypto investments, driving tech-savvy customers to the virtual asset. The Indian banks continued to allow transactions on cryptocurrency exchanges pushing the RBI to release another circular in 2017 conveying its apprehensions with virtual coins. Finally, a warning clarifying that virtual currencies are not a legal tender was issued by the RBI and the finance ministry by the end of 2017.

In March 2018, a draft scheme for banning virtual currencies was submitted by the Central Board of Digital Tax (CBDT) to the finance ministry and just about a month later the RBI came out with a circular restraining banks, NBFCs and payment system providers from dealing with virtual currencies and providing services to virtual currency exchanges. This dealt a heavy blow to crypto exchanges and trading volumes fell by 99%.

### **November 2018: #IndiaWantsCrypto**

On 1<sup>st</sup> November 2018, ten years after Nakamoto's paper, Nischal Shetty, Founder of WazirX, started the #IndiaWantsCrypto campaign for the positive regulation of crypto in India. The earliest impact was seen when the campaign received a positive response from Rajeev Chandrashekar, a sitting Rajya Sabha MP. The campaign was later joined by celebrities such as Sathvik Vishwanath of Unocoin, Polygon Co-founder Jayanti Kanani, renowned entrepreneur and investor Anthony Pompliano, and DJ Nikhil Chinapa. Nischal's relentless tweets and support for the campaign has garnered widespread acknowledgement with the hashtag trending on twitter during the budget session in February where the crypto bill was announced. Recently, in July 2021, #IndiaWantsCrypto completed 1000days and the campaign is still going strong with Nischal's tweets and lakhs of other crypto enthusiasts joining it in its course.

### **March 2020: Supreme Court Strikes Down the Crypto Banking Ban**

The ban was a massive setback and resulted in crypto exchanges filing a writ petition in the Supreme Court and the ban was ultimately stricken down, declaring the RBI circular unconstitutional. Cryptocurrency exchanges, thus, sprung back to life and the SC ruling came at the best possible time, coinciding with the crypto boom.

### **2020: Impact of COVID-19 on Cryptocurrency**

COVID-19 a disease from which millions of people died and every person was affected. COVID-19 is a highly communicable disease, therefore almost every county in the world imposed lockdowns due to which people were forced to stay at home and work from home. During this pandemic, financial markets become unstable as anyone could have predicted. But, to the surprise cryptocurrency market remained stable, especially Bitcoin. It can be termed as proof that bitcoin has become a full-fledged element of the financial market. So, COVID-19 pandemic has verified cryptocurrencies positively. It has emerged as a hedge against the uncertainty of COVID-19.

### **2021: Announcement of Crypto Bill:**

However, the battle for cryptocurrencies in India was not over yet. On Jan 29, 2021, the Indian government announced that it will introduce a bill to create a sovereign digital currency and subsequently put a blanket ban on private cryptocurrencies. In November 2021, the Standing Committee on Finance, met the Blockchain and Crypto Assets Council (BACC) and other





cryptocurrency representatives and concluded that cryptocurrencies should not be banned but regulated. In early December 2021, Prime Minister Narendra Modi also chaired a meeting on cryptocurrencies with senior officials.

### Conclusion

A cryptocurrency is a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend. Cryptocurrency helps in fixing the problems of traditional currencies by putting the power and responsibility in the currency holders hand. Bitcoin offers a new, effective and attractive model of payment methods that can boost companies and operators revenues. Cryptocurrency is important as the transactions are fast, digital, secure and worldwide, which in essence allow the maintenance of records without risk of data being pirated. Bitcoin is a good indicator of the crypto market in general, because it's the largest cryptocurrency by market cap and the rest of the market tends to follow its trends. A major benefit of bitcoin is that it's a very accessible and versatile currency. Since it only takes a few minutes to transfer bitcoin to another user, it can be used to purchase goods and services from the ever growing list of places accepting it. Bitcoins have already gained wide acceptance around the world.

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