

# Cryptocurrency: Advantages and Disadvantages

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## ABSTRACT

The cryptocurrencies were designed to be medium of exchange. The blockchain technology on which cryptocurrencies are based on offers many possibilities for computer science and all future businesses. For the past decade experts as well as laypeople have been experiencing cryptocurrencies in extremes. They either have a very positive attitude or a very negative attitude towards them. Experts who have very positive attitudes towards them believe that cryptocurrencies create new ways of conducting business and new ways of trust relationships are managed. Experts who have very negative attitudes towards them often emphasize the fact that they are often linked to negative connotations such as being a tool for criminal activities or skipping social responsibilities such as tax avoidance and corruption. They also emphasize the fact that it is a new, unexplored technology and an unstable market. The blockchain technology on which cryptocurrencies are based on offers many possibilities for computer science and all future businesses. For the past decade experts as well as laypeople have been experiencing cryptocurrencies in extremes.

There are more than 1,600 cryptocurrencies in circulation today, with a combined market cap of over \$289 billion, according to Coin Market Cap data. Investors around the world are eager to trade in this rapidly-growing space, and a slew of cryptocurrency platforms have emerged to meet the need for infrastructure to support the exchange of digital currencies. Though they call themselves "exchanges," from an investor's standpoint they function similarly to e-brokerages and their rapid rise is reminiscent of the explosion of electronic discount brokerage firms during the dotcom bubble of the late 1990s.

## INTRODUCTION

Representation of the European Commission in Croatia defines cryptocurrencies as digital money, created in digital form as a means of digital exchange. Cryptocurrencies exist only on the Internet and have not been published by, or monitored by, a central bank or government. Precisely because cryptocurrencies are not controlled by the central bank, they are not formally money. They are stored in a "digital wallet" on one of the websites that provide this service. Every transaction made is recorded. The general or public "ledger" in which all transactions and value changes of cryptocurrency units are recorded is called "blockchain". A blockchain is a database that is shared across a network of computers. Once a record has been added to the chain it is very difficult to change. For the past decade experts as well as laypeople have been experiencing cryptocurrencies in extremes. They either have a very

positive attitude or a very negative attitude towards them. Many kinds of research have been done, most of them showing that young people under the age of 35, mainly known as "millennials" are more prone to working with cryptocurrencies. There is no doubt that the era of information and communication technologies has created many golden opportunities in several aspects. One of the fields that benefit from these technologies and online connections is the financial and business sector. A growing number of online users has activated virtual world concepts and created new business phenomena. Thus, new types of trading, transactions and currencies have been arising. One of the remarkable financial forms that have been emerged in the past few years is Cryptocurrency. Cryptocurrency (CC) can be defined as any medium of exchange, apart from real world money, that can be used. For the past decade in many financial

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**KEYWORDS:** Cryptocurrency, Bitcoin, Digital Currency, Blockchain, Virtual Currency

transactions whether they are virtual or real transactions. Cryptocurrencies represent valuable and intangible objects which can be used electronically or virtually in different applications and networks such as online social networks, online social games, virtual worlds and peer to peer networks. In many financial transactions whether they are virtual or real transactions. Cryptocurrencies represent valuable and intangible objects which can be used electronically or virtually in different applications and networks such as online social networks, online social games, virtual worlds and peer to peer networks. As early as 2012, small scale Bitcoin transactions were already taking place within the country. These were still early days in the development of Bitcoin when only crypto hobbyists were interested in Bitcoin. By 2013, Bitcoin was beginning to gain a level of popularity that was spreading across many countries. That year, a few businesses began to accept Bitcoin payment. A vintage era pizza shop called Kolonial in the Worli area of Mumbai became the first restaurant service in India to accept Bitcoin payments.

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### Review of literature:

A high-level Inter-Ministerial Committee was constituted in November 2017 to study the issues related to virtual currencies and propose actions to be taken. The Committee submitted its report on February 28, 2019 and the report was released in public domain on July 22, 2019. The mandate of the Committee included examining the policy and legal framework for regulation of virtual currencies.

### Recommendations of the Committee include:

**Virtual currencies:** Virtual currency is a digitally tradable form of value, which can be used as a medium of exchange or acts as a store of value or a unit of account. It does not have the status of a legal tender. A legal tender is guaranteed by the central government and all parties are legally bound to accept it as a mode of payment.

Cryptocurrency is a specific type of virtual currency, which is decentralised and protected by cryptographic encryption techniques. Decentralisation implies that

there is no central authority where records of transactions are maintained. Instead, transaction data is recorded and shared across multiple distributor networks, through independent computers. This technology is known as Distributed Ledger Technology.

**Issues related to virtual currencies:** The Committee observed that cryptocurrencies cannot replace traditional currencies due to several issues associated with them. These include: (i) cryptocurrencies are subjected to market fluctuations. For instance, the value of Bitcoin cryptocurrency reduced from around USD 20,000 (December'17) to USD 3,800 (November'18) in less than a year; (ii) cryptocurrencies are decentralised, which makes them difficult to regulate; (iii) cryptocurrency design have several vulnerabilities which leave consumers open to risk of phishing cyber-attacks and ponzi schemes. Further, transactions are irreversible, meaning there is no way to redress wrong transactions; (iv) cryptocurrencies require large amount of storage and processing power, which can have unfavourable consequences on country's energy resources; and (v) cryptocurrencies provide greater anonymity .

There is an increasing trend of foreign cryptocurrency exchanges investing in Indian cryptocurrency exchanges. It is because India has a population of 139 crore that is predominantly young which is seen as tech-savvy and more adaptable to crypto saving," said Harish BV, co-Founder, Unocoin, which has a user base of 13 lakh in India. The median age of Indians is between 28 and 29 years.

In March 2020, when India's apex court set aside RBI's circular and allowed financial institutions to engage in digital coin transactions, investors returned to the market with a vengeance. Within weeks of the RBI ban lifting, trading volumes and new sign-ups on crypto exchanges went up multifold. Since then, the volumes and user base of these exchanges have expanded each month.

Mitchell Rice (2019) has also stated that no specific building or agency regulates cryptocurrency; thus, cryptocurrency is based on people's trust that it would also be helpful tomorrow. This digital currency is not backed by any asset or guaranteed against a liability.

In 2016, DeVeries had stated that cryptocurrency sustains from the trust and acceptance of its owners and users of the instrument. He also said it is susceptible to easy attacks due to easy access. He wrote that, 'These 'tests' were launched by exchanges and miners to prove a point about Bitcoin's design: that the network cannot handle a high load transaction rate.

Another paper by Cameron Harwick reiterated the same idea in 'Cryptocurrency and the Problem of Intermediation, 2016' as: "The fundamental problem here is trust.

The necessity' of a method transition, however, deserves a few more words. Because a cryptocurrency protocol defines both the coinage and exchange of the base money, issuing liabilities on a fractional-reserve basis requires more than simply adding parameters to coins. A bank that wants to vary its issue with demand needs to create its coinage and exchange mechanism, a new protocol that would not be compatible with the original even if its processing took place on the identical blockchain. Nor would one issuer's liabilities be compatible with another's." The essence of this problem arises from the status of an illegal tender and non-regulation.

#### **Advantages:**

Introduction benefits of using virtual currencies into two categories. Those are economic and individual benefits. The economic benefits under the EBA relate to more facts. First, they relate to transaction costs. In principle transaction, costs should not exist because there are no intermediaries in the transaction. However, there are transaction costs, but they are much less compared to other forms of payment. The reason is the costs incurred in regulation, internal control, and similar.

Secondly, approximately every ten minutes new blockchain entries are added. The geographic distance of the participants in the transaction does not matter. Regardless of their distance, the same timeline is required to complete the transaction. This characteristic is considered an exceptional advantage in opposition to other payment methods. The basic individual benefit of cryptocurrencies is online transactions. The use of cryptocurrencies is beneficial to both buyer and seller. Because they are autonomous they have no issuer and no institution to control their circulation, which means the seller is granted full anonymity, which buyers mainly benefit from. A return possibility in a virtual currency transaction is not deductible. When making a payment for a selected product or we cannot get the virtual currency unit back on request. This is where the EBA highlighted the advantage by sellers because, with traditional forms of payment in the case of fraudulent defect reports, funds often would have to be refunded. Except for spending money, cryptocurrencies have been suggested to be a new and popular form of alternative investment. They hold several important advantages over traditional forms of currency such as independence, security, and price liquidity which can result in something like we

experienced with Bitcoin, resulting in a massive surge of interest in cryptocurrency.

Anyone who owned Bitcoin at the end of 2017 became very rich overnight. Bitcoin exploded in price, and needless to say, everyone who wasn't a part of that wanted to invest some money in case it happened again. And it did happen again in 2019 many cryptocurrency users find it very important that it preserves their privacy. In order to be able to open an account and execute transactions through a bank, you are obliged to provide extensive personal information, but with cryptocurrency, you do not have to provide personal data and the transactions take place anonymously. Although the degree of privacy varies from cryptocurrency to cryptocurrency, most of them guarantee complete anonymity. And you can create as many account numbers or addresses as you want.

#### **Disadvantages of Cryptocurrency:**

Stated before, the advantage of cryptocurrencies is its anonymity but the downside of anonymity is its lack of confidence.

1. The lack of a competent institution to control and guarantee creates a high risk of the counterparty.
2. In electronic money, the issue of risk and trust is questionable, while in fiat money it is highly correlated with the national economy and politics. While some experts applaud the anonymity feature of cryptocurrencies, many see them as a downside. The reason for that is their susceptibility to criminal purposes resulting from the anonymity of their use.
3. The black market and the dark web are big users of cryptocurrencies. Criminals value their anonymity, as much as they value the ability to send vast sums of money around the world simply using their phone. This made cryptocurrencies relatable to the risk of money laundering, terrorist organizations, and other illegal activity, financing many negative connotations. From a strictly economic view, many experts show a negative attitude towards cryptocurrencies because of their strong volatility and difficult to predict.

Since the beginning, cryptocurrencies had a highly volatile nature. This is one of the main reasons mass adoption is taking longer than it should. Many corporations don't want to deal with a form of money that is going through huge swings in volatility. Experts are also pointing out other potential problems.

4. Regulatory and legal issues are two of the big obstacles facing the crypto sector. Because the



technology is new, governments and banks have not yet formed a coherent fiscal policy for them. Therefore, there is a risk that their taxation status, trading rules, or even legality, could change and become more complicated.

Also, a concern, although it's never been conclusively proved, it's widely assumed that insider trading, collusion, and market manipulation is present across the crypto sector. And last, but not least, one big cryptocurrency issue is lack of awareness and understanding. It is a known fact that many people are still unaware of digital currencies. To be able to use and invest in cryptocurrencies people need to be educated to be able to apply it to their lives. Businesses are accepting bitcoins because of the advantages, but the list is relatively small compared to physical currencies. One of the reasons is that the workers need to be educated on Bitcoin so that they can help the customers. This will definitely take some time and effort.

### **Its rise in India:**

India with a population that is over 1 billion strong has been on something of an economic renaissance in the last few years. Such has been the extent of the country's growth that the IMF has called it the fastest-growing emerging economy. More than 40 percent of the country's population has access to telecoms and internet services. A country steeped in mystery, history, and culture, it is also not one to fall behind when it comes to technological advancement. Bitcoin and other cryptocurrencies have been operating within the country for a number of years now. This article looks at the state of the Indian cryptocurrency market. As early as 2012, small scale Bitcoin transactions were already taking place within the country. These were still early days in the development of Bitcoin when only crypto hobbyists were interested in Bitcoin. By 2013, Bitcoin was beginning to gain a level of popularity that was spreading across many countries. That year, a few businesses began to accept Bitcoin payment. In a short space of time, cryptocurrency exchanges began to spring up within the country. Pioneers like BtcxIndia, Unocoin, and Coinsecure began offering cryptocurrency exchange and trading services in India. Over time, others like Zebpay, Koinex, and Bitcoin-India were added to the list. With the proliferation of crypto trading and exchange platforms, the crypto market in India has grown from its modest level in 2013 to what it is today. Apart from these online exchanges, there are also a number of over-the-counter (OTC) crypto shops in the country. Add to this, numerous Bitcoin ATMs in major Indian cities and you have the makings of a

crypto economic hub. On November 8, 2016, Prime Minister Narendra Modi announced the commencement of a demonetization Policy. The move by the government to demonetize approximately 86 percent of the country's paper currency sent shockwaves all across the subcontinent of India. People with large cash holdings required a new means of holding such wealth without incurring significant tax burdens and sundry government scrutiny. This meant that they were effectively circumventing what would have been considerable taxes if they had tried to circulate their wealth through the banking system. The demonetization policy also led to widespread criticism of the mainstream financial scene in the country.

In the space of 24 hours, 86 percent of the country's paper currency in circulation had been rendered valueless by virtue of a single government proclamation. Realizing that fiat money isn't exactly "real" money since it isn't backed up by anything, Indians began to seek alternative currency models. Many Indians, especially those in the 40 percent bracket with access to the Internet began to take up Bitcoin and other cryptocurrency investments. The 2016 demonetization policy may have spurred the adoption of cryptocurrencies among a considerable portion of the population but realities soon began to emerge that have stifled the growth of the market in the country.

Despite its vast population, India only contributes 2 percent of the total global cryptocurrency market capitalization. The small role being played by such a large economy can be attributed to the high cryptocurrency prices & the RBI-led government crackdown. The general level of prices of cryptocurrencies in India is on the high side. Market rates are relatively higher by as much as 5 to 10 percent compared to the global average.

This means that Indians can only get involved in peripheral participation in crypto trading as far as international crypto exchange platforms are concerned. Lack of large-scale mining facilities & strict government restrictions on international money flow also make it significantly difficult for Indians to transact with many of the large foreign crypto exchange platforms. The Reserve Bank of India (RBI) has been consistent in warning citizens of the risk associated with cryptocurrencies.

### **World's largest cryptocurrency by market cap:**

At the time of October 8th, 2019 there were approximately 2,957 cryptocurrencies being traded with a total market capitalization of \$221bn. This means that the top 10 cryptocurrencies represent roughly 85% of the total market value. Even though

the list of top 10 cryptocurrencies changes very often, the first three on the list is a constant. Those are Bitcoin, Ethereum, and Ripple.

### 1. Bitcoin:

Bitcoin is the world's largest cryptocurrency by market cap. Launched in 2009, it is created by an anonymous developer Satoshi Nakamoto, whose true identity is never verified. Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies.

### 2. Ethereum:

A blockchain-based open public network platform that enables developers to build and deploy decentralized applications for use by businesses, as well as individual users. It acts as a platform on which a whole virtual ecosystem can be developed, stored, executed, and used by users securely and anonymously.

### 3. XRP:

XRP is a currency that is part of the Ripple technology. Ripple is a technology mostly known for its digital payment network and protocol. Ripple's main specialty is payment settlement asset exchange that is similar to the SWIFT system for international money. Over the last year, fourth and fifth place of the list has been exchanged by Bitcoin Cash and Bitcoin SV. Both of those coins are a result of a hard fork of Bitcoin. A hard fork is a radical change to the protocol of a blockchain network that makes previously invalid blocks/transactions valid or vice-versa. This means both of those coins started as Bitcoin, but a group of miners decided they wanted to set new rules to the code, changing its initial idea and creating their own version of Bitcoin. Some coins that are or have been in the top 10 cryptocurrencies by market cap are Tether, Litecoin, EOS, Stellar, and Monero. Tether is a blockchain-based cryptocurrency stable coin whose crypto coins in circulation are backed by an equivalent amount of traditional fiat currencies, like the dollar, euro, or yen. It is always worth 1 American dollar.

Litecoin is a peer-to-peer cryptocurrency. It's a fully decentralized open-source, working as a global payment network developed with the aim to improve Bitcoin's shortcomings. EOS is a decentralized system based on the blockchain that enables the development, hosting, and execution of decentralized applications on its platform, similar to Ethereum. Stellar is an open source payment technology; very similar to Ripple. Monero is a digital currency that offers a high level of anonymity for users and their transactions. It has several privacy-enhancing features

that improve upon Bitcoin. One crypto token that hasn't made the top 10 list yet.

## Cryptocurrency and Laws

Besides concerns and challenges that are facing current virtual currency systems, I analysed the legislative issues that are likely to influence cryptocurrency use. Moreover, several lawsuits and real world laws that are likely to be triggered with virtual currency industry are involved in our analysis. A status of governments on cryptocurrency around the world exchanging virtual currency with real currency is a hot topic in e-business and e-commerce industries. Trading cryptocurrency for cash is banned and prohibited in some countries where in other countries, it is either allowed or not regulated yet. If 2017 was the year of the Initial Coin Offerings (ICO), it seems as if 2018 is destined to become the year of regulatory reckoning. Things have already begun to heat up as countries around the world grapple with cryptocurrencies and try to determine how they are going to treat them.

### Presented as follows:

1. United States (Friendly): The U.S. has been taking an approach to foster innovation and growth of blockchain and cryptocurrency while protecting investors from high risks and fraud. On February 6, 2018, the Securities Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC), took the position that "we owe it to this new generation to respect their enthusiasm for virtual
2. Canada (Friendly): The Consumer Agency of Canada (FCA) publishes online information regarding digital and cryptocurrencies. The FCA explains aspects of decentralization, peer-to-peer transactions, digital wallets, wallet security, and the risks of using digital currency. They further maintain that digital currencies are not legal tender, and that profits made from digital currencies are subject to Canada's Income Tax Act. Goods and services exchanges for cryptocurrency must be reported as income for tax purposes, and transactions between cryptocurrencies are considered commodity transactions, and must be reported.
3. China (Hostile): China is notorious for some of the world's largest bitcoin mines. In 2017, China banned cryptocurrency trading on Chinese exchanges and made ICO fundraising illegal, curving market demand, and causing a large overall downtrend in the cryptocurrency markets. Some are welcoming, others are cautious. And some countries are downright antagonistic. Here is a brief overview of how 10 countries/unions

from various regions are treating cryptocurrency regulations

4. South Korea (Neutral): The cryptocurrency market's all-time highs in January 2018 were quickly silenced, in part from fears that South Korea may ban cryptocurrency trading in a manner similar to China.
5. Japan (Friendly): Currently, Japanese Yen accounts for over 36% of Bitcoin's trading volume, more than every other currency. USD is second at just over 31%. Japan's high demand for cryptocurrency is supported by a well-regulated legal system that supports the industry.
6. Singapore (Friendly): Singapore is often considered one of the more hospitable government's toward cryptocurrencies. In October 2017, the Monetary Authority of Singapore (MAS) published a clarifying document on cryptocurrency regulation.
7. Thailand (Neutral): Thailand expects to clarify its stance on how to regulate digital currencies within the coming months. The government aims to protect against fraudulent activities and deceitful investments, while maintaining the benefits of using blockchain technology.
8. Vietnam (Neutral/Hostile): Vietnam's Ministry of Justice and State Bank of Vietnam (SBV) are quickly preparing a report to present to the Council of Ministers.
9. Russia (Friendly): In January 2018, the Russian Finance Ministry drafted a bill that would legalize "digital financial assets" stored on blockchain networks as electronic securities. The bill would define the scope of regulations on cryptocurrency, and would not prohibit trading.

### Conclusion and Suggestions

Cryptocurrency offers a new, effective and attractive model of payment methods that can boost companies and operators revenues. It also provides alternative method of payment, apart from real money, that enables users to make financial activities such as buying, selling, transferring and exchanging easily. Although cryptocurrency platforms open many channels for digital financial transactions and provide a new form of currency with different mechanisms and methods, they are not controlled and regulated as they deserved. The research analyzed cryptocurrency platforms and extracted many concerns and challenges that put such financial system under the risk. The lack of legislations is considered as the main concern in cryptocurrency systems. Almost a clear picture of the size of cryptocurrency use has been

drawn from my analysis of the current cryptocurrency. Although the pilot study has been conducted with relatively small sample, but the results showed me a preliminary perception about the use, the growth, the trust of using and future expectations of cryptocurrency. I can now realize many indications that can provide initial answers to the research questions. My analysis indicates that cryptocurrency is very likely to be the next currency platform due to the large volume of cryptocurrency that is flowing in different systems, the huge expanding and growing of using and implementing cryptocurrencies and the opportunities that cryptocurrency systems offer. Moreover, the confidence and trust rate of using cryptocurrency is noticeably high as it can be seen in several cases that have been stated in this paper besides the survey results. However, users have not realized the full picture of using cryptocurrency. The correlation between the real financial laws and the legislative status of implementing cryptocurrency platform needs to be studied further from various different prospective. Moreover, the adoption and acceptance level also needs more consideration and more analysis with large samples. Trust and confidence are important factors that need to be investigated further in terms of using and trading the Cryptocurrency forms. The further research scope can be extended to developing use-cases for applications of cryptocurrency across different sectors in India.

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