

“Investment in Cryptocurrency: A Critical Analysis”

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Abstract

Cryptocurrency has the potential to act as an alternative form of money. It is referred to as digital money that uses cryptography to secure its transaction instead of a centralized intermediary like a bank. The first ever cryptocurrency to be traded was *Bitcoin* in January 2009 by Satoshi Nakamoto. His main goal was to invent something many people had failed to create before digital cash. The author in this paper tries to understand what affects the price of cryptocurrency and identifies the basic aspects of cryptocurrency.

In an April 2018, RBI had banned crypto traders and exchanges from accessing formal banking channels. But recently, on March 2020 the Supreme Court has struck down the curb on cryptocurrency trade in India. The author tries to figure out whether the companies that shut their operations due to RBI's circular will be restarting its business? It is to be evaluated that whether the apex court's decision could pave the way for trading in virtual currencies and put the banking system at risk? Shall Cryptocurrency exchanges in India can now legally operate and How soon the banks will start supporting the exchanges? Further it is to be seen whether the citizens have the right to create a new industry of cryptocurrencies and exchanges along with the fundamental right to trade?

Keywords: cryptocurrency, central Bank, virtual currencies, cryptocurrency exchanges, digital money etc.

Introduction

Before money came into the scene as a medium of exchange, there existed a system known as the barter system. Barter system is basically the mode of exchange wherein two people exchange goods and services as per their requirement. Every exchange in this system required a double coincidence of wants i.e., each party must have the exact goods or services that the other party wants.

Example: A has 10 kgs of rice and B has 4 milking cows. They both exchange their commodities with each other despite the odd nature of it.

This followed the system of IOUs¹ wherein goods were primarily exchanged for the promise to return the favour in the future. But due to the ever growing and expanding society, the scale of economic activities also increased, thus it became harder to keep track of the IOUs and there was a growing concern for default and settlement risk.

¹ Will Kenton, IOU, INVESTOPEDIA (Apr. 26, 2020, 15:06 PM), <https://www.investopedia.com/terms/i/iou.asp>

Money and financial institutions came into existence to address the growing complexity and difficulty in maintaining trust.

History stands proof to the fact that with the growth and expansion more mediums of exchange came up that could respond to increasing demand and be used effectively in trade and can be invested in as they have a stable value. But even flexible and stable currencies can easily be debased. Further, in modern times the payment systems are safe and cost-effective and handle high volumes of transactions. The contributing factor towards this achievement is scalability.

A successful money payment system is determined by how widely it is used by buyers as well as sellers, the more people connect to a particular payment system, the higher is one's incentive to use it. Money is not the only factor that is to be trusted, there needs to be equivalent trust that the payment will take place promptly and there is finality attached to the transaction.

Money has either an intrinsic value or a value derived from a government decree. *It serves three basic functions:*

- (a) Acts as a medium of exchange
- (b) It is a unit of account
- (c) Store of value.

Cryptocurrency is nothing but a new form of currency which aspires to have trust, stability in their value using technology. It has the potential to act as an alternative form of money. It can be referred to as digital money that uses cryptography to secure its transaction instead of a centralized intermediary like a bank.

Cryptography is a tool used to convert comprehensible data into codes difficult to comprehend let alone crack. It allows for secure transfer and exchange of digital tokens in a systematic and decentralized manner. Such tokens can be exchanged at market rates for fiat currencies.

Fiat money refers to that which has no intrinsic value but derives its value by government decree.

It is a lesser known fact that cryptocurrency was a side product of another invention. The first ever cryptocurrency to be traded was *Bitcoin* in January 2009 by Satoshi Nakamoto. His main goal was to invent something many people had failed to create before digital cash. He announced this invention as a new electronic cash system that uses a peer-to-peer network to prevent double spending. He also mentioned that it was completely decentralized with no server or central authority.²

² Ameer Rosic, what is cryptocurrency: 21st-Century Unicorn – Or the Money of The Future?, (Feb. 15, 2020, 12:30 AM), <https://blockgeeks.com/guides/what-is-cryptocurrency/>.

The entire behind cryptocurrency is what if a currency could be regulated by math rather than by governments. There are many types of cryptocurrencies, with Bitcoin being the preeminent and first to be widely used.

Despite the various functions of cryptocurrencies, each currency is supported by a decentralized peer-to-peer network called the *Block chain*. This technology keeps a track of all cryptocurrencies irrespective of the fact that they are kept in a digital wallet or are used in trading. Bitcoin was the first to market, setting up a system in which two people - the sender and the receiver of coins - must sign off on payments to create a digital signature.³

This is possible because every person has a public and a private encryption key, with every transaction being verified and done in anonymity to bring about transparency.

At the centre of this transaction is the master ledger that records and stores all transactions and activity, giving validity to the owners of all units of currency at any given point in time. A Blockchain, as it keeps a record of the entire transaction, has a finite length meaning it contains a limited number of transactions that increases over time.

A group of individuals are in charge of continually recording and authenticating cryptocurrency transaction, as this is a decentralized network server which has no central authority or bank regulating its functions. This group is known as Miners.

Most cryptocurrencies are designed to have a finite supply – a key guarantor of value. Generally, this means that miners receive fewer new units per new Blockchain as time goes on. Eventually, miners will only receive transaction fees for their work, though this has yet to happen in practice and may not for some time.

A cryptocurrency transaction is irreversible once finalized. The finalization process is done within few minutes of transaction, with it being incorporated in the Blockchain. Confirmation is an important aspect of cryptocurrencies. It is safe to say that cryptocurrency is all about confirmation. For as long a transaction is unconfirmed and pending, it can easily be forged. Once a transaction is confirmed it is set in stone. It cannot be reversed or forged.

The units are not available to either party during the initialization and finalization process. They are held in escrow. Thus, a unique feature of the Blockchain technology is that it helps in preventing double-spending or the duplication of the same currency units.

While transacting in Cryptocurrency, the personal details are not used. It is done anonymously, with the help of a private key which every cryptocurrency holder has, that authenticates their identity. This key is formatted as whole numbers between 1 and 78 long and once it has been obtained, holders can spend the currency. The key is the main element in order to spend or convert their holdings.

³ How does cryptocurrency work?, GENESIS MINING (Feb. 15, 2020, 02:45 AM), <https://www.genesis-mining.com/how-cryptocurrency-works>.

This feature might help in preventing theft and restrict unauthorized access but the flipside to it is draconian. Once lost, there is no way to recover the holdings which were protected by the key.

Cryptocurrency users have “wallets” with unique information that confirms them as the temporary owners of their units. Whereas private keys confirm the authenticity of a cryptocurrency transaction, wallets lessen the risk of theft for units that aren’t being used. Wallets used by cryptocurrency exchanges are somewhat vulnerable to hacking.⁴ For example Mt. Gox the Japan-based Bitcoin exchange was shut down and declared bankrupt on 28th February 2014 after hackers got more than \$450 million in Bitcoin exchanged.

Basic aspects of cryptocurrency

In order to understand what affects the price of cryptocurrency which in turn affects chances of investment in them, *the basic aspects of cryptocurrency need to be identified and dealt with.*

(a) *Volatility* - refers to the rate at the price of a particular investment changes. If an investment is highly volatile it refers to the chances of facing a loss due to such a nature. It means that there can be no planned and effective budget for future purposes as the risk factor would be too high. The main problem with cryptocurrency is that many people want to have access to a limited amount of cryptocurrency. The basic economic behind this is that it will lead to a hike in price and the value will rise, whereas at the same time it will become cheaper for people already in possession of cryptocurrency. When the value of cryptocurrency increases, it encourages the holders to hold on them rather than use them.

On the other hand, a decrease in the value of cryptocurrency leads to their sale while buying more stable investments. This has a negative impact on cryptocurrencies as its sale is done at an extremely lower price.

Due to the lack of a central authority, which exists in other forms of investments to regulate the market and maintain stability, in cryptocurrency the volatility factor is higher which acts as a negative factor in attracting potential investors. This platform provides incentives to users to perform the required functions, by giving them new units of currency in return for the successful computations. In general, the rate at which new units are created—and therefore the total amount of currency in the system—is limited by the platform protocols designed by the creators of the cryptocurrency. This particular feature creates scarcity which helps in the retaining of value of this new currency.

(b) *Awareness* - The number of takers is proportional to the degree of awareness. Higher awareness means more users. This equation plays a huge role in the field of investment in cryptocurrency. The higher the media coverage regarding the price rally of any form of

⁴ Brian Martucci, what is cryptocurrency- How it works, History, Bitcoin Alternatives, MONEY CRASHERS (Feb. 16, 2020, 10:45 PM), <https://www.moneycrashers.com/cryptocurrency-history-bitcoin-alternatives/>.

cryptocurrency larger is the number of speculators. Like any other investment, cryptocurrency too has its pros and cons. It is important to spread awareness regarding both; only then will people be able to make a reasoned decision as to whether to invest in such a currency. The aim is not to discourage potential investors by disseminating only the negative aspect of investing in this, like e-wallet thefts, ban implemented by certain countries etc.

(c) *Anonymity*- is an important part of any transaction using cryptocurrency. As mentioned earlier no personal information is linked while using this form of payment. This ensures complete privacy of user and might have a positive or a negative impact depending on how you look at it. Usually payments in this system are made without any personal information being linked to the transaction, unlike regular transactions. This leads to a higher rate of protection against theft and offers almost full anonymity. Such transactions once done are secure and irreversible. Despite this, the total value of cryptocurrency, the number of business and the circulation is very small compared to fiat currencies. Even though the total supply of cryptocurrency is pre-determined, it may increase or decrease as the demand may vary dramatically.

(d) *Influence of Legislation*- Due to the sudden increase in the number of transactions in the form of cryptocurrency, many countries were forced to amend existing laws or formulate new laws in order to regulate investment and transactions of such a nature. Some countries completely banned the trading in such form of currency altogether by refusing to recognize it as a legal tender. Most countries do not have legislations in place to regulate and provide a proper scheme for investing in cryptocurrency. The presence or absence of a regulation plays a vital role in positively or negatively influencing the chances of using cryptocurrency in legal transactions.

In Cryptocurrencies there is a lack the regulatory safeguards that financial institutions and markets have, such as prevention of insider trading, financial reporting and disclosure, third-party audits and a proper security infrastructure — all of which pose risks for the retail investor when un-established⁵. Even though it is argued that cryptocurrency should not be regulated because it is a form of currency that uses technology, and technology is decentralized. But if left unchecked, the volatile nature of it could become a risk to the stability of the economy.

A key regulatory challenge is Anti-money laundering and combating financing of terrorism. To what extent cryptocurrency has allowed the abovementioned and avoid capital control or taxes or engage in illegal transaction, is difficult to determine due to the anonymity factor.

The reason for the difficulty in investing in any form of cryptocurrency is that even though it is a good medium of exchange, but it does not hold value at a reasonably stable rate. Instead

⁵Praveen JayaChandran, Cryptocurrency Regulation: An Indian Perspective, COINTELEGRAPH (Feb. 17, 2020, 09:40 PM), <https://cointelegraph.com/news/cryptocurrency-regulation-an-indian-perspective>.

investing in gold has a much better outcome ratio because if fiat currency fails, gold can easily be used as a medium of exchange, as done in the past.

INDIA

In India, the Government has refused to recognize cryptocurrencies as a legal tender, even though exchanges are legal but there is a huge difficulty in operating them. The Reserve Bank of India (RBI) and the Government has reacted, for the most part, favorably to the significant boom in the use of technology. They have supported innovation to promote a digital or cashless economy, but cryptocurrency remains on the outskirts.

The year 2013 was the first time when the RBI took notice of the use of cryptocurrency and has since then cautioned users, holders and traders of this currency but remained silent on the legality of its use. Similarly, the Enforcement Directorate and Income Tax Department have undertaken swift measures to shut down businesses associated with cryptocurrency by conducting raids under the garb that such use is in violation of foreign exchange and anti-money laundering regulations.⁶

The RBI has not banned cryptocurrencies at the very outset, it has just ring-fenced regulated entities from the risks associated with trading in such instruments. As per the Circular⁷ circulated by RBI dated 6th April 2018 all RBI regulated entities were banned from dealing in cryptocurrency. They were provided a 3month period within which all accounts dealing in cryptocurrency had to be shut down.

As there was only a choke in the financial dealing contemplated by a buyer, seller or trader in cryptocurrency, it is not per se a ban.

The main reasons given by RBI is to protect the investors as cryptocurrency lacks any intrinsic value and affords anonymity to its holders. Due to the nature of such transactions imposing a know-your-customer (KYC) regulation does not per se reduce the threat of fraudulent transaction as identification of the original holder is difficult. Lack of adequate recourse in case of illegal activity is a hindrance and the Judiciary cannot hold anyone accountable for such illegal activity as the accused must be an "identifiable party"⁸. Cryptocurrency goes a step further and protects any party engaging in such activities, thus rendering the holders vulnerable.

Another reason cited by the Government and the regulator is that there is lack of control exerted by central authorities over this form of currency.

⁶Jayshree P. Upadhyay, Vivina Vishwanathan, Bitcoin users come under Enforcement Directorate, I-T scanner, LIVEMINT (May 01, 2020, 10:10 AM),

<https://www.livemint.com/Money/W5UksCn38XGv5GTKpdAkWP/Bitcoin-users-come-under-Enforcement-Directorate-IT-scanner.html>.

⁷RBI, Prohibition on dealing in Virtual Currencies, RBI/2017-18/154 (Apr. 08, 2016).

⁸ Blockchain & Cryptocurrency Regulation 2020, Global Legal Insights (Feb. 22, 2020, 03:20 AM), <https://www.globallegalinsights.com/practice-areas/Blockchain-laws-and-regulations/india>.

Cryptocurrency cannot be regarded as a Pre-Paid Instrument (PPI) due to two basic features i.e., anonymity and lack of intrinsic value. PPI and payment systems are regulated by the Payments and Settlement Act, 2007 (PSSA) and the RBI Master Directions on Issuance and Operations Of Prepaid Payment Instruments dated 11/10/2017 (Master Directions)⁹.

PSSA is to regulate and supervise prepaid instruments i.e., payment systems that affect electronic transfers. Prepaid instruments are "payment instruments that facilitate purchase of goods and services, including financial services, remittance facilities, etc., against the value stored on such instruments."¹⁰

Thus, the value of cryptocurrency maybe contingent upon its demand/supply whereas prepaid instrument does have an intrinsic value associated with them along with the proper identification of its holder being possible.

On the other hand, Securities and Exchange Board of India (SEBI) has remained silent on its stance on cryptocurrency. As they are often associated with speculation, it is difficult to decipher whether acceptance of cryptocurrency as tokens would be a deposit or security.

A security has been defined as "shares, scrips, stocks, bonds, debenture, debenture stock, or other marketable securities of a like nature in n incorporated company or body corporate"¹¹. In this context, cryptocurrency does not fall within any of the categories mentioned and in order to regulate this the definition of security must be revised.

In order to regulate cryptocurrency, the anonymity of the parties involved in the transaction may continue to pose a hurdle in the event of its regulation.

The Government of India has promoted the use of Blockchain technology despite its aversion towards cryptocurrency. In 2017 the RBI considered introducing its own cryptocurrency akin to Bitcoin known as *Lakshmi*, but the idea was shelved. Policymakers seem to have taken the road most treaded upon by most countries on shunning the use of digital currency. The Banning of cryptocurrency and Regulation of official Digital Currency Bill, 2019 draft seeks to impose a 10-year imprisonment on anyone who "mines generates, holds, sells, transfers, disposes, issues or deals in cryptocurrencies"¹²

⁹RBI, Master Direction on Issuance and Operations of Prepaid Payment Instruments, RBI/DPSS/2017-18/58 (Feb. 28, 2020).

¹⁰Ibid.

¹¹The Securities Contracts (Regulation) Act, 1956, sec 2(h).

¹²Rohan Abraham, The toss of a Bitcoin: How crypto ban will hurt 5 mn Indians, 20K Blockchain developers, THE ECONOMIC TIMES, Sept. 16, 2019, https://economictimes.indiatimes.com/magazines/panache/the-toss-of-a-bitcoin-how-crypto-ban-will-hurt-5-mn-indians-20k-Blockchain%20%20developers/articleshow/71146269.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

CYPRUS

This European nation was the first to declare cryptocurrency as a legal tender in 2014. At present cryptocurrency is not subject to any regulation when it comes to buying, selling, owning or exchanging cryptocurrencies, thus it is a great place for Blockchain projects. Main aspect here is that the Central Bank of Cyprus' related circular stated the following: "Bitcoin is not illegal, but, at the same time, neither it is subject to control or regulation". Thus, work with crypto assets in Cyprus is conducted according to the rules of general civil law.¹³

Investors are more attracted to invest in cryptocurrency in Cyprus because they do not impose any tax on cryptocurrencies or cryptocurrency gains. They view this as securities and are typically subject to capital gains taxes, but unlike other countries Cyprus has no such taxes.

Blockchain has finally given countries opportunities to compete with bigger nations. When it comes to digital currencies, the world's most powerful countries may be imposing barriers and strict regulations but countries like Cyprus are taking it in stride and embracing the new technologies.

Cyprus is open to many types of innovative Blockchain projects relating to payment services, crypto- trading, securities and many more. The country is currently listed among the freest location for Initial Coin Offering (ICO) organizers and crypto enthusiasts.¹⁴ Cyprus has become one of the best countries that are considered for Blockchain businesses and this is mostly because of the island's attractive tax system. What is more, the country offers no danger to restrict or ban ICOs. Also, the fact that Cyprus has raised to 5.000.000 EUR calculated over a period of 12 months, the threshold under which there is no obligation to publish a Prospectus for security offerings, is good news to investors and crowd sale organizers who do not want to limit themselves with a utility token.¹⁵

Conclusion and Suggestions

Cryptocurrency as a new form of money is still developing and is at a nascent stage. Thus, the question of its availability automatically arises. The ease of exchanging ordinary currency into cryptocurrency and vice-versa plays an important role in attracting investors and allows for an increase in its use.

Without the need for a central authority, this novel Blockchain technology allows us to store and transfer a monetary unit as like cash. Price volatility and scaling issues frequently raise concerns about the suitability of Bitcoin as a payment instrument. Without the need for a central authority, this technology represents digital property which can lead to the creation of a new asset class that can mature into a valuable portfolio diversification instrument.

¹³Blockchain and Cryptocurrency, PAHA LAW (Feb. 27,2020, 06:30 AM), <https://pahalaw.com/areas-of-practice/cyprus-regulatory-licensing/Blockchain-cryptocurrency/>.

¹⁴Cryptocurrency Investments and Regulations in Cyprus, SIMON ZENIOS & CO LLC (Mar. 01, 2020, 08:00 PM), <https://www.advocatescyprus.com/cryptocurrency-investments-and-regulations-in-cyprus/>.

¹⁵ Ibid.

Cryptocurrency is an exciting concept which has the power to fundamentally change global finance. But still cryptocurrency remains a technological and practical work in progress as it is based on sound, democratic principles.

Meanwhile, cryptocurrency users as well as non-users need to remain ever mindful of the concept's practical limitations. Any claims that a cryptocurrency confers total anonymity or immunity from legal accountability are worthy of deep skepticism, as are claims that individual cryptocurrencies represent foolproof investment opportunities or inflation hedges. After all, gold is often touted as the ultimate inflation hedge, yet it's still subject to wild volatility – more so than many first-world fiat currencies.

As studied earlier, in an April 2018 circular¹⁶, RBI had banned crypto traders and exchanges from accessing formal banking channels. But recently, on March 2020 the Supreme Court has struck down the curb on cryptocurrency trade in India.¹⁷ Further, the court ruled that curbs on cryptocurrency trading was illegal. Does it mean that many of the companies that shut their operations due to RBI's circular must be seen restarting its business? It is to be evaluated that whether the apex court's decision could pave the way for trading in virtual currencies and put the banking system at risk?

Further it is to be seen whether the citizens have the right to create a new industry of cryptocurrencies and exchanges along with the fundamental right to trade? The verdict upholds the legality of cryptocurrencies and decriminalises the investors who have already invested in various crypto assets like bitcoin, ether, and various others.¹⁸ Shall Cryptocurrency exchanges in India can now legally operate and How soon the banks will start supporting the exchanges?

It has been noticed that CoinDCX, which claims to be India's largest crypto exchange continued to operate even after the ban. The exchange stated that it has seen a sharp rise in users and trading volumes after the SC judgment.¹⁹ Now, it is to be seen that what are the factors that drive up the volumes?

On May 2020, Crypto currency exchange have approached the central bank on clarity around their status in India which is also set to impact how they will be taxed domestically.²⁰

¹⁶ Supra note 7.

¹⁷ SC allows trade in cryptocurrency, quashes RBI curbs, THE ECONOMIC TIMES, Mar. 04, 2020, <https://economictimes.indiatimes.com/markets/stocks/news/sc-allows-trade-in-cryptocurrency-quashes-rbi-curb-on-use/articleshow/74470078.cms>.

¹⁸ Saloni Shukla, RBI to seek review of Supreme Court Order on Cryptocurrency, THE ECONOMIC TIMES, Mar. 06, 2020, <https://economictimes.indiatimes.com/news/economy/policy/rbi-to-see-review-of-supreme-court-order-on-cryptocurrency/articleshow/74503345.cms>.

¹⁹ Neil Borate, Crypto trading rises in India after SC overturns RBI payments ban, LIVEMINT, Apr. 21, 2020, <https://www.livemint.com/money/personal-finance/crypto-trading-rises-in-india-after-sc-overturns-rbi-payments-ban-11587466139986.html>.

²⁰ Sachin Dave, Saloni Shukla, Cryptocurrency exchanges approach RBI seeking clarity on status and taxability, THE ECONOMIC TIMES, May 04, 2020, <https://economictimes.indiatimes.com/industry/banking/finance/banking/cryptocurrency-exchanges-approach-rbi-seeking-clarity-on-status-taxability/articleshow/75523505.cms>.

whether they are being categorized as commodity, currency, goods or a service as this is set to impact the way they get taxed under Goods and Services Tax (GST) framework? It is to be observed that what kind of notifications shall be introduced by Central Bank in this regard. Later it is to be seen whether cryptocurrency will succeed in India or not and to evaluate the contribution towards the economic growth of the country.