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STUDY ON THE ADOPTION OF CRYPTOCURRENCY

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ABSTRACT

The Banking system plays a significant role in regulating the financial system of every country. This system works under the control of the central bank. The banking system works on a centralised network where peers to peers are connected to one system. Blockchain is a new technology based on decentralised and distributes channels. It is different from the centralised channel; it is based on the broadcast network as the connectivity of peer to peer is in such a manner that each works independently. Cryptocurrency is based on blockchain technology. This is created on a broadcast network approach. The invention of cryptocurrency occurred in 2008 when Satoshi Nakamoto published a white paper proposing a system for electronic transactions based on a peer-to-peer network. Satoshi Nakamoto launched the first cryptocurrency, Bitcoin, in 2009. With the expansion of new knowledge and technologies, the concepts of Cryptocurrency have become relevant in the present economic environment. However, most countries have no law to regulate crypto-trading, but they have to ensure that crypto-related activities do not do illegal activities, as they are linked with a high degree of risks, including greater price instability and the absence of lawful support. The governments of different countries must enact a comprehensive law at the earliest. The study is an overview of the concept of Cryptocurrency in a more theoretical and conceptual manner. The present study focuses on the overall requirement needed to identify the adoption of cryptocurrencies. The evidence available regarding the constant increase in the volume of Cryptocurrency trade highlights the wider acceptance and growth every year all over the globe. Globally it has already captured the investor's confidence in the market and further put pressure on the governments of different countries to look for an alternative or accept it legally.

Keywords: *Cryptocurrency, Bitcoin, Blockchain, Cryptography, Legality.*

Introduction

In today's global environment, we are not stuck to one's thoughts, technology is moving so fast, and the same is true for our views. Looking at the immense use of the internet for online transactions, one can estimate the customer's / investors' keenness to adopt blockchain technology in future. Further, it can be expected, that the process of adopting blockchain technology will benefit the banking industry and customers with faster, cheaper and more secure transactions.

The world is going ahead with the concept of digital currency. Cryptocurrency is a digital currency in which transaction records are kept by a decentralised system using cryptography rather than by a centralised authority. It is a type of currency that only exists in digital or electronic form and can function independently of a central bank. In the paper, Fang et al. (2022) "provide an in-depth survey of

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146 cryptocurrency trading papers and examine the research distribution that distinguishes the cryptocurrency trading literature. According to the study's findings, cryptocurrencies have gained wide market acceptance and rapid development despite their recent inception. Many hedge funds and asset managers are including cryptocurrencies in their portfolios and trading strategies..".

Journey and Working of Cryptocurrency

- Satoshi Nakamoto came up with the first-ever blockchain technology for developing bitcoin in 2008
- Then in 2009 BITCOIN was first released as open-source software
- Due to the success of this design, Nakamoto implemented it as the core component for bitcoin, where it has remained the same ever since .
- Ever since then, many other cryptocurrency types have followed through.
- Cryptocurrency is nothing more or less just a medium of exchange.
- Cryptocurrency uses decentralized monitoring systems. All types of cryptocurrency have this ledger where transactions are made public to ensure the system's transparency as promised
- Decentralized controlling of each cryptocurrency works through the distributed ledger technology called as Blockchain
- Blockchain ensures that the cryptocurrency is kept under tracking regardless of the fact that they are held in a digital wallet or used within a trading transaction.
- Transactions are confirm through cryptocurrency network called as miner. They take transactions, mark them as legitimate, and allow them to be spread all over the system.
- When a transaction is confirmed by the miner, every intersection of the transaction has to become a part of the database – in turn, becoming a part of the blockchain.
- Miners are then rewarded within the existing domain of cryptocurrency through whatever type of currency is being used.
- After a miner is through with a solution, they are responsible for building a block to be made a part of the ongoing blockchain.
- At last we can say that the mechanism works in a way that even if somebody plans to enter the system and crash it, there is no loophole present in the network, mining, or blockchain to cause the system to break immediately.

The Soundness of Cryptocurrency in India

The government has now realised that the country lacks a proper framework for directly legalising cryptocurrencies. These cryptocurrencies are not currencies nor securities issued by a known party. Recognizing that, imposing a complete ban on crypto-related trade is difficult, the Ministry of Corporate Affairs made a few amendments to Schedule III of the Companies Act, 2013 on March 24, 2021. It has also been realised that a complete ban on cryptocurrencies is neither advisable nor desirable, as many Indians have been trading in them.

The Government of India has not considered cryptocurrencies as legal tender or coins in the Budget Speech (2018-19) of the Finance Minister of India. "...the Reserve Bank of India (RBI) issued circulars to all banking and financial companies in 2018, but this circular of the RBI banning the trade in cryptocurrencies was lifted by the Supreme Court of India in the March 2020 judgement." This judgement has temporarily relieved the parties, i.e., those trading in cryptocurrencies.

Countries vary in their Viewpoint on Cryptocurrencies

Countries such as Germany, Hong Kong, Malaysia, Singapore, and Switzerland have taken a more liberal stance. However, profits from active crypto trading are taxable in some countries. Countries such as Bolivia, China, Egypt, Indonesia, and Turkey, on the other hand, have imposed restrictions on crypto-related transactions.

Literature Review

Cryptocurrency, its regulation, awareness, and trust have been widely covered in academic research. These studies were conducted in different settings using various research designs, applying various models and statistical techniques. As per the viewpoint, DeVries (2016) concluded with a mixed view regarding cryptocurrency as compared to traditional fiat currency. Further, it suggested looking over the overall economic impact of the same, after its execution by the particular countries. Some of the countries have already moved in the direction of blockchain technology and can be a base for further study and its impact on future adoption. For instance, Blesson James & Manjari Parashar (2018) examined the behaviour of investors in India. According to the researcher, Crypto-currency has become a global phenomenon. Following a report, it was found that the Central Bank of India had previously warned Indians from using cryptocurrency because it can be used for money laundering and terrorist financing. However, it suggested that cryptocurrency is modern technology and a tool that should be used in the future. Overall, the research found that the Indian government had made no regulatory response. However, the number of cryptocurrency investors has rapidly increased in recent years. A subsequent study by Alaeddin and Altounjy (2018) investigates the factors influencing generation Z's attitude and intention to use cryptocurrency in their financial decisions. The study uses a quantitative method and a sample of 230 final-year students from Malaysia's University Kuala Lumpur Business School. There was a significant impact on the awareness and trust of the investors' attitudes related to Cryptocurrency and an intention to use Cryptocurrency. On the other side, Anil Kumar (2019) explored the effect of Cryptocurrency on the e-Business and e-Payment sector. According to the researcher, Cryptocurrency does not get that much trust and concern. Various challenges and issues exist in many cryptocurrency platforms. Accordingly, "…the lack of legislation is the main concern in cryptocurrency systems". As per the current scenario, India's industry has grown around Bitcoins. It has already gained wide acceptance worldwide- hence banning them would not be an option in India. Bondarenko et al. (2019) conduct research on the Ukrainian economy. The researcher compares various countries' international experiences with crypto usage and legal status. According to the study's findings, cryptocurrency's position in the world is ambiguous. Many large countries still accept it as electronic money, if not as a payment method. At the same time, many countries are wary of jumping to conclusions and prefer to learn more about the cryptocurrency market and its regulatory potential. Ukraine only lacks the regulatory framework required to effectively implement cryptocurrency. Market forces should determine the fate of cryptocurrency and blockchain technology. Experts believe that establishing a regulatory framework in this area will help to stabilise cryptocurrency markets. Bala (2022) has focused on the popularity of crypto coins and emphasised their legal framework. According to the researcher, the most popular crypto coins like Bitcoin, Ethereum, and Dogecoin are public, and their transactions are completely transparent. The acceptance of cryptocurrencies seems to be allowed by Govt. of India. No legislation covers Cryptocurrency in India, but that does not mean it is illegal. Central bank digital currency (CBDC) has received a proposal from RBI for an amendment in the RBI-1934 act to enhance the scope of the definition of banknote in digital form. The central bank said that CBDC has the potential to provide significant benefits like reduced settlement risks, reduced dependence on cash, and lower transaction costs. The Cryptocurrency and Regulation of the Official Digital Currency Bill 2021 is expected to prohibit all private cryptocurrencies while introducing its own digital currency. In an article from RBI *Cryptocurrencies-An Assessment 1* (2021), "When using paper money in a transaction, the receiver must make certain that the money is not counterfeit. As a result, the payment instrument is authenticated by the receiver. Except in rare cases where the receiver fails to detect counterfeit currency, this arrangement works in most cases." After reviewing the article further, it can be analysed that in the transactions through E-banking, the bank verifies the digital transactions at the time. This procedure also works on the ground of banks' policies. Customers may believe that the fees charged by banks are excessive, or that their transactions are being tracked. Further, in the same article, the basic problem they had to overcome was the 'double spending problem'." ……Satoshi Nakamoto accomplished this by inventing the blockchain. When a transaction occurs on a blockchain, it is broadcast to the network. A block, which is a collection of new transactions, is authenticated and then added to the previous chain of blocks. Then each block is linked to the one before it. All of this makes double-spending difficult." All of this resulted in the creation of Bitcoin, which was followed by many others, including ether, dogecoin, tether, stellar, and other cryptocurrencies.

The present study has explored various factors affecting the use of Cryptocurrency and understands its legal status and usage worldwide. The study is a conceptual in nature about Cryptocurrency.

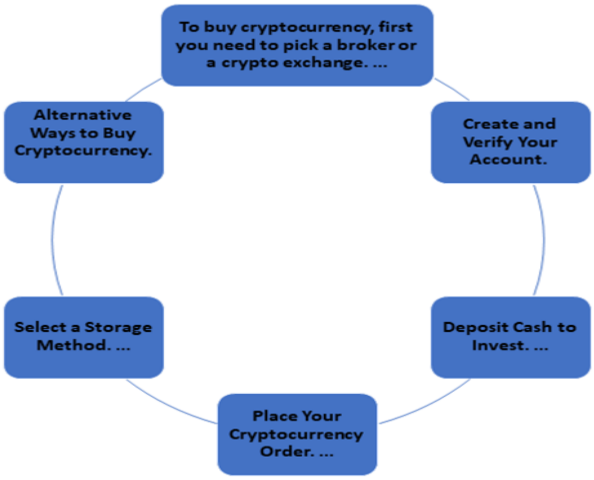
Issues Related to Cryptocurrency

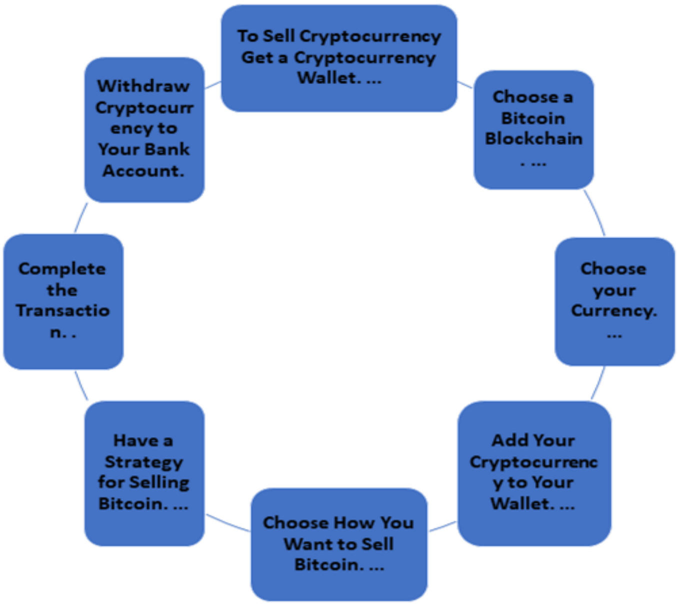
The above figure includes the factors explored after reviewing various research papers.

Buying and Selling Process

Crypto wallets are where Cryptocurrencies are stored. Furthermore, one can buy safely using three simple steps, i.e. Select Platform- fund the account -place an order.

Process





In the table below, there are a few highlights of some of the popular cryptocurrencies and their feature as a glimpse for understanding.

BITCOIN (BTC)	• Invented by Satoshi Nakamoto in 2009 (First Cryptocurrency)	• Open-source software • Peer to Peer Digital Cash	• Most Popular, also known as Digital Gold	• Bitcoin is created as an alternative to the fiat currency
ETHER (ETH)	• Proposed by Vitalik Buterin in 2013 and live in 2015	• Work with intelligent contracts • A user does not control them. Instead, they are arranged to the network and run a programme	• Second most popular digital token • Second-largest cryptocurrency after BITCOIN as per market capitalisation	• Ether is a platform for creating programmatic contracts • it is a decentralised application with its currency
Ripple	• First implemented in 2004 by Ryan Fugger • Launched in 2012 • The native currency of the Ripple network is XRP • Recognized as Ripple protocol or Ripple transaction protocol (RTXP)	• real-time gross settlements system.		• Ripple is a blockchain technology company providing efficient solutions to send money across the globe. • Ripple-net is one of the global payment networks used by many financial institutions.

Tether		• A stable coin equal to the US dollar.		• Stablecoins are cryptocurrencies whose price and value are attached to fiat money or exchange-traded commodities like the US dollar or gold.
Litecoin (LTC or Ł)	• Invented by Charlie Lee in October 2011	• It is a decentralised global currency based on blockchain technology • It is an open-source software project.		• It is a peer-to-peer cryptocurrency released under the MIT/X11 license.
BAT (Basic Attention Token)		• BAT is an Ethereum-based token for the brave browser, an open-source, privacy-centred, and decentralised ad exchange platform.		• Brave browser is designed for ad tracking blockers and users' private data safety.

Source: https://zebpay.com/in/buy-cryptos/

Like a stock market, cryptocurrency has emerged as a big market, and many popular slags and phrases have become a part of its trading. The table below gives an overview of a few of them. Crypto slags and phases

Altcoins	• Alternative to BITCOINS	• all cryptocurrencies other than Bitcoin.
ATH	• All-Time High	• the highest price attained by a cryptocurrency after it has been listed on exchanges.
FUD	• Fear, Uncertainty, and doubt	• particularly volatile coin fluctuates up and down.
HODL	• I Am Holding	• HODL, which stands for "Hold on for dear life," refers to buy-and-hold strategies.
ICO	• Initial Coin Offering	• • The first time an organisation offers digital tokens available to the public in order to raise funds.
Lambo	• Short form of Lamborghini, and in crypto culture, it symbolises success.	• It refers to the point at which your cryptocurrency investment is valuable enough to purchase a Lamborghini.
Mining	• Solve complicated mathematical problems • Proof-of-Work	• Involves competing with miners
Satoshi	• The bitcoin cryptocurrency's smallest unit	• Named after Satoshi Nakamoto
Shilling	• Is creating hype and buzz around a coin in order to promote and raise its price	• Shills are people who promote products for personal gain.
Whale	• Individuals or businesses • Who has a large number of bitcoins?	• Are Price makers
Yield Farming	• Is a method of generating passive income with cryptocurrency by lending your funds to others	• Using a smart contract instead of a bank as a fixed deposit in cryptocurrency

Sources: https://zebpay.com/in/learn/glossary/

The figure below shows the pricing of cryptocurrency for a particular day.

#	Name	Price	24h %	7d %	Market Cap	Volume(24h)	Circulating Supply
1	Bitcoin BTC Buy	$29,977.61	▾1.73%	▴0.45%	$571,277,510,028	$25,410,133,620 847,941 BTC	19,063,637 BTC
2	Ethereum ETH Buy	$1,771.35	▾2.41%	▴0.43%	$214,439,559,632	$12,798,803,502 7,228,834 ETH	121,118,524 ETH
3	Tether USDT	$0.9994	▴0.01%	▾0.00%	$72,444,109,553	$42,432,861,278 42,464,122,926 USDT	72,497,481,449 USDT
4	USD Coin USDC	$1.00	▴0.01%	▴0.01%	$53,818,467,256	$3,421,552,399 3,420,881,495 USDC	53,807,914,444 USDC
5	BNB BNB Buy	$288.29	▾1.14%	▾3.95%	$47,049,053,719	$897,416,767 3,114,356 BNB	163,276,975 BNB

Sources: https://coinmarketcap.com/

The figure above highlights the pricing of cryptocurrency for a particular date.

- Market capitalization = current price x available supply (total value of the cryptocurrency at the reporting day's market price)
- Volume = the total volume of cryptocurrency transactions in the previous 24 hours.
- Circulating Supply = the amount of cryptocurrency in circulation.

Challenges Ahead 2022

The cryptocurrency market has become an attractive investment pattern for youngsters worldwide. Indians are not far behind and are one of the leading investors. Considering this factor, the Government cannot ignore the market boom and the increasing number of investors. However, the future of Cryptocurrency is uncertain in India; until then, the Government will develop a legal regulation for the same.

Future of Cryptocurrency

It is too late to see that Cryptocurrency is the future of financial systems worldwide. Competition for the same will be much more as even the banking sector will not keep silent and introduce their Cryptocurrency. The involvement of Fintech companies with Indian crypto start-ups is another issue to be considered.

Criticism

- Lack of regulatory legislation regulation cryptocurrency.
- Lack of Users and protection to customers against fraud.
- Several countries have warned against their use.
- Lack of central control
- May hamper the financial security of the country.
- Costly due to advanced technology.
- It required specialised hardware and software.

Conclusion

According to Fang et al. (2022), the number of financial institutions including crypto-currencies in their portfolios has increased in recent years. The researcher determined from other works of literature that cryptocurrency has some similarities with more traditional assets but has its own distinct nature and behaviour as an asset. The process of the same is still to be understood. Giudici et al. (2020) have explained through the study that regulators around the world are becoming more stringent. Some exchanges strive to communicate with regulators while remaining fully compliant. Others would prefer to operate outside the rules. A straightforward argument is that investors and users must be safeguarded against financial and technological risks. However, the research in this paper has shown that cryptocurrencies differ from traditional assets, raising concerns about factors such as systemic stability, consumer protection, and competition promotion, which are not yet clear. The future of the same has already taken a step forward. Banks in the United States are developing chain-based systems, including digital currencies, to enable customer-to-customer cryptocurrency payments. Customers can sell and hold Bitcoin and cryptocurrencies using a PayPal Account, according to an initiative by one of the online payment systems. Customers can also buy items from the 26 million sellers who accept PayPal. The growth of cryptocurrency in the global market can be justified by various factors like an increase in its demand in various countries, growing market capital, its operational efficiency, its transparency related to payment and many more. Further, factors which cannot be ignored such as high implementation costs and lack of awareness among the investors/customers in different nations, as the same may hamper the cryptocurrency market growth. Overall it is the initial phase of the adoption of cryptocurrency. And further, its impact needs to be clear about its influence on the economic and financial systems of the adopting countries. Also, keep in mind its legal status and the interest of the people.

References

1. Alaeddin, O., & Altounjy, R. (2018). Trust, Technology Awareness, and Satisfaction Effect on the Intention to Use Cryptocurrency among Generation Z in Malaysia Investigating the competition-stability relationship in dual banking system View project Market Discipline in an Islamic Banking Sy. *Article in International Journal of Engineering and Technology*. https://doi.org/10.14419/ijet.v7i4.29.21588
2. Anil Kumar, D. V. (n.d.). Volume 6 I ISSUE 1 I Jan IJRAR. *International Journal of Research and Analytical Reviews*. http://ijrar.com/
3. Bala, A. (2022). Cryptocurrency and its scope in India. *International Journal of Innovative Research in Technology*, *8*(8), 594–596.
4. Blesson James, P., & Manjari Parashar, P. (2018). *cryptocurrency: an overview on its impact on indian economy* (Vol. 6, Issue 2). www.ijcrt.org
5. Bondarenko, O., Kichuk, O., & Antonov, A. (2019). THE POSSIBILITIES OF USING investment tools based on cryptocurrency in the national economy's development. *Baltic Journal of Economic Studies*, *5*(2), 10. https://doi.org/10.30525/2256-0742/2019-5-2-10-17
6. *Cryptocurrencies-An assessment 1*. (n.d.). https://www.ft.com/video/ccb48782-82f9-44ef-97c7-dcfa02431123
7. DeVries, P. (2016). An Analysis of Cryptocurrency, Bitcoin, and the Future. *International Journal of Business Management and Commerce*, *1*(2), 1–9.
8. Fang, F., Ventre, C., Basios, M., Kanthan, L., Martinez-Rego, D., Wu, F., & Li, L. (2022). Cryptocurrency trading: a comprehensive survey. *Financial Innovation*, *8*(1). https://doi.org/10.1186/s40854-021-00321-6
9. Giudici, G., Milne, A., & Vinogradov, D. (2020). Cryptocurrencies: market analysis and perspectives. *Journal of Industrial and Business Economics*, *47*(1), 1–18. https://doi.org/10.1007/s40812-019-00138-6
10. *Cryptocurrencies-An assessment 1*. (2021.). https://www.ft.com/video/ccb48782-82f9-44ef-97c7-dcfa02431123
11. https://enterslice.com/learning/cryptocurrencies-challenges-india/
12. https://www.marketsandmarkets.com/Market-Reports/cryptocurrency-market-158061641.html#:~:text=%5B188%20Pages%20Report%5D%20The%20cryptocurrency,the%20growth%20of%20the%20market.
13. https://www.binance.com/en/blog/fiat/how-to-buy-bitcoin-a-quick-guide-from-binance-318034612921425920
14. https://www.financialexpress.com/economy/india-to-take-a-considered-view-on-crypto-fm-sitharaman/2505765/
15. *The institute of cost accountants of India blockchain and cryptocurrency: the way forward*. (2021). www.icmai.in
16. https://www.investopedia.com/articles/forex/091013/future-cryptocurrency.asp
17. https://www.trendmicro.com/vinfo/us/security/definition/cryptocurrency#:~:text=A%20cryptocurrency%20is%20an%20encrypted,buying%2C%20selling%2C%20and%20transferring.
18. https://learn.g2.com/how-cryptocurrency-works
19. Budget 2022 announcements that impact investors and taxpayers. https://www.valueresearchonline.com/stories/50374/budget-2022-and-the-investor
20. https://zebpay.com/in/buy-cryptos/.