

AN OVERVIEW ON THE ROLE OF CRYPTOCURRENCIES IN BUSINESS AND FINANCE

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ABSTRACT

Bitcoin is the first fully online cryptocurrency. This is the result of a common practice in financial institutions to generate income by spreading the losses evenly within the institution. Cryptography is a long-standing technology that can protect sensitive data from unauthorized access and misuse. In the encryption process, data is first sent with encryption. "Blockchain" is the peer-to-peer network that is the foundation of Bitcoin. Its main purpose is to eliminate the possibility of double spending. This system can be called completely decentralized because there is no central server or administration. The values of these currencies are confirmed only by companies as well as public opinion. Bitcoin, despite a lot of hype, can already be used to buy real goods and services in the online market. Cryptocurrencies represent a major departure from existing financial systems, which are developed, managed and managed by experts. In contrast, traditional financial reports are prepared, managed and reviewed by experts. The use of blockchain technology may be responsible for the increase in the number of digital currencies. Cryptocurrencies, and Bitcoin in particular, are great financial instruments and other investments that can help diversify your portfolio. Bitcoin is the most popular cryptocurrency. The crypto market shares many similarities with other financial markets, especially the precious metals market, and many cryptocurrencies are now regularly used as payment methods.

Keywords: Cryptocurrencies, Blockchain, Business Finance, Chi square

INTRODUCTION

After the global financial crisis of 2008, people gradually lost trust in traditional banking and financial institutions. The fact that Bear Stearns and Lehman Brothers filed for bankruptcy on the same day, March 16, 2008, was a strong indicator that the economy was becoming worse. These companies were not the only ones that the shock had an impact on. Instead, the debt crisis affected other significant financial organisations such as AIG, Bank of America, Citigroup, JPMorgan Chase, Goldman Sachs, and Morgan Stanley. The global financial crisis had a significant impact not just on the United States of America but also on several countries in Europe and Asia. The country's industrial output, private investment, and exports all went down as the economy went into a tailspin, as a consequence of the global financial crisis. The majority of international financial institutions in China ceased hiring new staff members since they were unable to continue operations. Banks have reported that they are suffering from a significant shortage of cash due to the fact that shadow banks have been funding their operations using short-term unsecured or collateralized market borrowing. Reputational harm

is inflicted all around the world upon financial institutions such as banks and other financial institutions (such as insurance corporations).

After the global financial crisis of 2008, an unknown person or group using the name "Satoshi Nakamoto" established a decentralised electronic peer-to-peer network that was based on the cryptocurrency bitcoin. This network allowed users to transact with one another directly. Bitcoin, the world's first decentralised digital currency, was introduced in 2008 and saw its first transactions in the early days of 2009. Bitcoin was the first cryptocurrency to be conducted entirely online. It was caused by the usual practise among financial organisations of hoarding earnings for themselves while distributing losses evenly across the board. Cryptography is a method that has been around for a long time that may safeguard sensitive information from being accessed and used inappropriately by unauthorised parties. In the process of cryptography, data first goes through the process of being encrypted into ciphertext.

A public database of all network transactions that can be verified by anyone is called a blockchain. This decentralised technology, which underpins many of today's most popular cryptocurrencies, is also known as the "block chain." Users of that digital currency are assured that each transaction made on the network will be audited and permanently recorded in a distributed public ledger known as the blockchain. Users are able to send and receive monetary transactions in this manner without having to place any confidence in the other side. The transactions that take place on a blockchain are recorded in the order that they occurred, so forming an unbreakable chain. It is possible that the degree to which these deals are anonymous or secret will vary according to the manner in which the technology is implemented. Due to the fact that the network is scattered over several locations, the ledger does not exist in a single centralised place. Instead, there are multiples of everything, and any node in the ecosystem that is completely functional updates its copy at the same time. Blocks of data may be used to represent a variety of different things, including financial transactions, digital rights, intellectual property, personal information, and even real estate titles. 2009 saw the birth of Bitcoin, the world's first decentralised cryptocurrency. The pioneering digital currency Bitcoin was launched by its creator, who prefers to remain anonymous and go by the moniker Satoshi Nakamoto. A "blockchain" is a peer-to-peer network that is the foundation of Bitcoin. Its primary purpose is to eliminate the possibility of double spending. Full decentralisation may be said to exist inside this system since there is neither a centralised server nor management. The values of these currencies were solely established by the market as well as the opinion of the people.

Even while cryptocurrencies make use of a variety of cutting-edge technologies and have a significant presence in markets all over the globe, the majority of countries have not yet acknowledged them as a new form of currency, and many individuals continue to question the value of cryptocurrencies. While several governments are implementing laws to legalise the use of bitcoin in routine commercial transactions, other nations are establishing restrictions for the use of bitcoin as a digital asset in financial endeavours. This is happening at the same time. However, there are still a number of countries that do not permit the use of cryptocurrencies in any capacity, including as a mode of payment or an investment vehicle.

Over 1,600 more digital currencies have since been introduced, all of which followed bitcoin's lead and came into existence after it. Bitcoins, despite all the hype, may already be used to buy genuine goods and services via internet marketplaces. Cryptocurrencies represent a significant break from existing monetary systems, which are designed, managed, and controlled by specialists. In contrast, traditional monetary systems are created, managed, and controlled by experts. The use of blockchain technology may be responsible for the explosion in the number of digital currencies. Blockchain is supposedly "a digital, decentralised, distributed ledger in which transactions are recorded and added to establish permanent and tamper-proof records," as described by those who advocate for the technology. The implementation of blockchain technology may lead to decentralisation and more transparency among the world's financial institutions. On the other hand, they may be controlled in a way that is both trustworthy and open to scrutiny. P2P networking that uses encrypted connections to ensure users' privacy and security. Cryptocurrencies, and bitcoin in particular, are cutting-edge financial tools and alternative investments that may assist you in diversifying your portfolio. Bitcoin is the most well-known cryptocurrency. There are a lot of parallels to be drawn between the market for cryptocurrencies and other financial markets, notably the market for precious metals, and a lot of cryptocurrencies are now being used as a form of payment on a regular basis.

LITERATURE REVIEW

In India, there has been a strong discussion over whether or not cryptocurrencies can be considered genuine. The intention of the Indian government to regulate cryptocurrencies like bitcoin has been made clear on several occasions. Initially, the Reserve Bank of India (RBI) published a circular that made it illegal for banks, NBFCs, and companies that provided services for payment systems to engage in the business of virtual currencies or to give services to virtual currency exchanges. In retaliation, bitcoin exchanges have petitioned the Supreme Court for a writ of certiorari. In the case *Internet and Mobile Association of India v. Reserve Bank of India*, the Supreme Court of India ruled that the RBI circular violated the country's constitution and overturned the ban. The most recent modification to the Companies Act of 2013's Schedule III was made public on March 24, 2021, and it was announced to the general populace at that time. It specifies that starting with the next fiscal year, all businesses will be required to report their cryptocurrency investments in their yearly financial accounts, along with any profits or losses that resulted from such investments. Traders and investors are required to report the details of any deposits or loans used to purchase virtual currency, in addition to declaring the total amount of virtual currency they have in their accounts. It was disclosed in India's Union Budget 2022 that a tax of thirty percent will be applied on the sale of digital assets. In addition, taxes might be withheld automatically from transactions using bitcoin at the moment of origination at a rate of one percent. The minister made it clear that despite the fact that it is impossible to pay taxes on virtual assets with physical worth, this does not provide legitimacy to virtual currencies.

All custodial wallet, virtual asset service, and virtual asset exchange providers are obliged to hold all user data in order to comply with the Cyber Security Directions of April 28, 2022. (KYC). In light of the proliferation of virtual assets, one more thing that has to be done is

making sure that records of people's financial dealings are kept for at least five years. This is necessary in order to protect people's basic rights, privacy, and economic liberty. In the event that Bitcoin businesses are required to keep their records for that length of time, they will need to continue operating for at least another five years. This, in turn, indicates the government's position that it is opposed to cryptocurrencies and the firms that support their usage.

There is more to the Bitcoin system than just a way for users to send and receive money with one another. Multiple factors set it apart from similar digital currencies. With the assistance of fraud protection, customers don't have to worry about chargebacks or charges that weren't authorised. Because user wallets are encrypted, the user is the only one who can access their funds; no other person can do so. There is not going to be any place for dishonesty in any manner. Bitcoin transactions may take place in almost every country in the world. Any bank, organisation, or person may instantaneously send and receive payments while maintaining their privacy and security on a worldwide scale. You are free to use any type of payment you like at any and all locations. Because there is no need for a middleman in Bitcoin transactions, this phrase is no longer relevant. In comparison to more traditional means of making payments, the amount of time and money spent on transactions is significantly cut down. Completely public ledger: everyone who uses Bitcoin has access to the whole history of all Bitcoin transactions and can follow their progress. The block chain is a distributed ledger that records the history of each and every transaction in a decentralised fashion. Bitcoins are a decentralised digital currency that may be used to make payments to other persons or corporations online. These transactions do not need the involvement of a central authority such as a bank or other financial institution to act as a go-between for the exchange of funds. Instead, the blockchain is used to clear and authenticate transactions that take place inside the company. The blockchain is the underlying technology for the overwhelming majority of digital currencies today. In its most basic form, it is a mechanism that allows for the transport and storage of the information that is created by Bitcoin transactions. The blockchain is a public and transparent ledger that stores a record of every transaction that has ever been done using bitcoin. Only the most recent transactions are recorded in the permanent ledger associated with a block. The very first Bitcoin transaction may be located in the blockchain, thanks to the use of cryptography for the purpose of securing and verifying transactions. The ease with which one may access the blockchain will determine the level of safety provided by the validation mechanism. Now the community has the ability to monitor and self-regulate any money dealings that take place.

This feature, in addition to making it easier to authenticate the sender and recipient of bitcoin transactions, also makes it less likely that bitcoin will be spent more than once. When a Bitcoin user creates a wallet, they are given two pieces of information: a public key and a private key to use when transacting using Bitcoin. The public key and the private key both consist of long sequences of numbers and letters, very much like a login and a password. You will need the recipient's public key in order to send them money if you want to use cryptocurrency. Nobody needs to know your true identity or email address in order to make use of it since all that is involved is a string of random letters and numbers. Because of this, it is hard to monitor the people that use Bitcoin. On the other hand, the private key is never revealed to anyone. The user's identity on the blockchain is determined by the user's private key. Bitcoin cannot be used

without first obtaining a private key. If someone were to get access to the wallet or account, it would be possible for them to steal all of the bitcoins that are stored in it.

There is no way to undo a transaction that has been made using bitcoin: Transactions made using credit cards, bank draughts, personal checks, and wire transfers are all instances of conventional payment methods. These payment methods all have the benefit of being insured and reversible, and they are all examples of traditional payment methods. When bitcoins are moved from one wallet to another, the receiver always gets the same number of coins, regardless of the circumstances. Your Bitcoin wallet is not going to be protected by insurance at the same time. If you lose access to the data on your hard drive or the password to your digital wallet, you may as well forget about trying to get your money back.

Everything that cannot be taken, frozen, or studied in any way A bitcoin wallet cannot be seized, frozen, or inspected by any government agency or financial institution since these actions are outside their capabilities. There is no upper limit on the amount of money that may be put into or taken out of a Bitcoin wallet. The owner of a Bitcoin wallet is the only person who has the authority to determine what should be done with the contents of the wallet.

The user experience of Bitcoin is famously difficult: Those who are not very knowledgeable about computers may find that the ideas of private keys, public keys, accessing and utilising a wallet, etc., are difficult to understand. A recipient's public key is a lengthy string of characters that must be entered into the computer in order to send them money. This is required in order to protect the integrity of the transaction. In order for Bitcoin to achieve widespread adoption, using Bitcoin has to become as natural as navigating the internet.

Because of the length of time it takes for transactions to be confirmed, there is a technological flaw in the system that makes it feasible, on rare occasions, to spend the same bitcoins twice. When dealing with Bitcoins, you are required to wait until the transaction has been validated by the P2P network of computers. While you are clicking through these advertisements, a dishonest user may have already sent the same amount of bitcoins to a second recipient using the same wallet address. Even if the system detects the double spending and cancels the second dishonest transaction, the second recipient will still lose both the money and the goods if they are sent to the dishonest buyer before they get confirmation of the dishonest transaction. This is because the second recipient will lose both the money and the goods even if the system detects the double spending and cancels the second dishonest transaction.

Objectives

The core objective of the study is to understand the dynamic role of cryptocurrency in business and finance. Also, to state the basics concept of crypto currency, to analyse the main advantages of cryptocurrency in business and finance.

Research Questions

Does the implementation of Cryptocurrency enable in lowering the transaction cost?

Will cryptocurrency support in high speed of sharing the financial deals?

Are cryptocurrency has no boundaries and can be traded anywhere in the world?

RESEARCH METHODOLOGY

The study use a descriptive research methodology to clearly and methodically characterise the problem. When there are two or more variables, this kind of study design may be utilised to assist researchers understand more about their subject. The descriptive technique is highly beneficial when the researcher wishes to gather data from first-hand sources for the study. This study's data were gathered from a variety of sources. The primary information source is a closed-ended survey, and the sample respondents are people who work for companies that are involved in the supply chain process. Using a 5-point Likert scale, the researcher selects closed-ended inquiries regarding supply chain management. To comprehend earlier study on a related issue, secondary data sources are acquired from internet libraries such ProQuest, Google Scholar, and others. The study is set up to employ quantitative research since its main objective is to analyse the survey's results. Convenience sampling is a technique the researcher use to choose the 142 participants in the study.

ANALYSIS AND DISCUSSION

A questionnaire is employed in this section of the study to analyse the data. The information collected from 142 participants in a sample population was analysed using IBM SPSS statistical software.

Table 1: Regulatory Framework

Regulatory Framework	Frequency	Percent
Not at all Important	10	7
Less Important	8	5.6
Neutral	20	14.1
Important	38	26.8
Highly Important	66	46.5
Total	142	100

From analysis it is noted that 46.5% were stating that highly important towards the statement that regulatory framework is essential in cryptocurrency, 26.8% mentioned as important, whereas 14.1% were neutral, and remaining stating that the regulatory framework is not important.

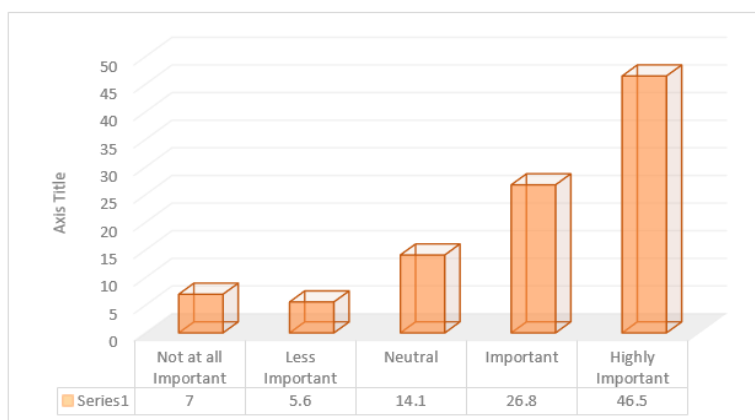


Fig 1: Regulatory Framework

The table involves in understanding the protection from cyber-attacks using the cryptocurrency.

Table 2: Protection from Cyber attacks

Protection from Cyber attacks	Frequency	Percent
Not at all Important	10	7
Less Important	15	10.6
Neutral	18	12.7
Important	58	40.8
Highly Important	41	28.9
Total	142	100

From analysis it is noted that 28.9% were stating that highly important towards the statement that protection from cyberattacks is critical in cryptocurrency, 40.8% mentioned as important, whereas 12.7% were neutral, and remaining stating that the regulatory framework is not important.

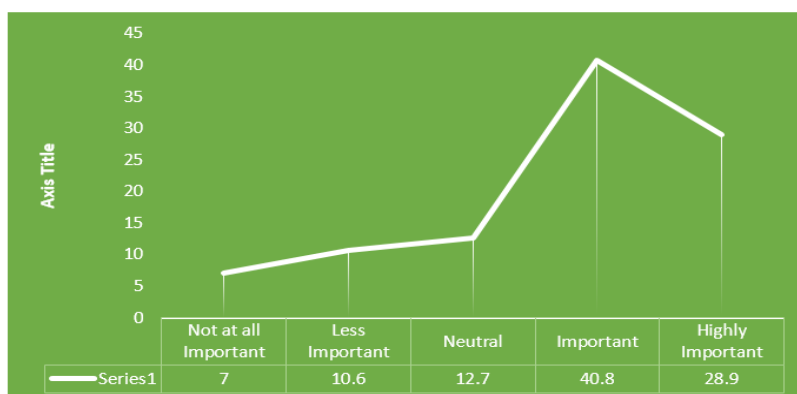


Fig 2: Protection from Cyber attacks

Chi square analysis

Does the implementation of Cryptocurrency enable in lowering the transaction cost?

Table 3: Lower transaction and Role of cryptocurrency

	Lower Transaction Cost	Role of cryptocurrency
Chi-Square	127.437a	90.042a
df	4	4
Asymp. Sig.	0.00	0.00

From analysis the overall sig number is 0.00 which is > 0.05 , hence to be stated that there is a critical association among Lower Transaction Cost and Role of cryptocurrency.

Will cryptocurrency support in high speed of sharing the financial deals?

Table 4: High Speed and Role of cryptocurrency

	High Speed	Role of cryptocurrency
Chi-Square	202.296a	90.042a
df	4	4
Asymp. Sig.	0.00	0.00

From analysis the overall sig number is 0.00 which is > 0.05 , hence to be stated that there is a critical association among High Speed and Role of cryptocurrency.

Are cryptocurrency has no boundaries and can be traded anywhere in the world?

Table 5: No boundaries and Role of cryptocurrency

	No boundaries	Role of cryptocurrency
Chi-Square	80.254a	90.042a
df	4	4
Asymp. Sig.	0.00	0.00

From analysis the overall sig number is 0.00 which is > 0.05 , hence to be stated that there is a critical association among No boundaries and Role of cryptocurrency.

CONCLUSION

The phrase "cryptocurrency" stands out in particular. Bitcoin is an innovative, user-friendly, and visually beautiful form of payment that might be beneficial to businesses and service providers that choose to accept it. The provision of many different payment options in addition to fiat currency makes the purchasing, selling, transferring, and exchanging of monetary value significantly simpler. The use of cryptocurrency could potentially make online transactions and business transactions more efficient. However, there is a lack of trust in cryptocurrencies at this time. A great number of Bitcoin systems are struggling with serious issues, which has raised considerable anxiety. Users of virtual currencies should proceed with extreme caution until such time as they are appropriately controlled and regulated. Because of this, the lack of

rules is the primary cause for concern when it comes to cryptocurrency systems. The Reserve Bank of India has not commented on the question of whether or not Bitcoin is legitimate, and this lack of action may have unintended repercussions. In India, there is already a flourishing industry of buyers, sellers, and merchants involved in bitcoin transactions. Because bitcoins are already being used to a significant extent in a lot of different countries, India cannot prohibit them. Instead, rules are what are required for this sector of the economy. It is of the utmost importance that this be finished without any further delay.

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