IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

Cryptocurrency: A New Era in Financial Innovation

Siddhi
Shri G.P.M. Degree College of Science and Commerce, Andheri, Mumbai, Maharashtra

Abstract: *Financial innovation is the creation of novel financial instruments and items, offerings, institutions, or markets. Through improvements in the implementation of digital technology, economic opportunity grows and financial stability is fostered.*
In a wide sense, a cryptocurrency refers to any kind of virtual or digital currency, including "tokens" and "coins." A set of cryptocurrencies known as "altcoins" that are based after Bitcoin have made an effort to present themselves as improved or modified versions of Bitcoin. As cryptocurrencies have grown in popularity, this basic aspect of the market has come under investigation, although almost often they are designed to be resistant to manipulation and control by the government. This research paper's goal is to educate you about cryptocurrencies as a financial innovation. We also talk about the benefits and drawbacks of cryptocurrency.

Keywords: cryptocurrency.

I. INTRODUCTION

Cryptocurrencies are a specific kind of digital money that function as a medium of exchange across a computernetwork and are not backed or managed by any one central institution, such a bank or government. It is a decentralised system that eliminates the need for traditional middlemen like banks when money is exchangedbetween two entities. It checks if the participants to a transaction genuinely have the funds they claim to have.In other terms, a cryptocurrency is a form of digital currency that was created using encryption methods as a new payment mechanism. Cryptocurrencies function as a virtual accounting system and a means of trade thanks to the use of encryption technology.
Cryptography secures cryptocurrencies, making them unforgeable and double-spend-proof. A digital or virtual type of currency is cryptocurrency. It is a decentralised distributed ledger that is enforced by a network of computers, or nodes. It makes use of a system called block chain.

1.1 Objectives

- To understand financial innovation
- To study about crypto currencies
- To study about crypto currency as an investment option in India.

1.2 Discussion

Financial Innovation

Financial innovation, to use a generic term, is the modification of numerous elements of the financial system.The list that follows is not exhaustive, but there have been important developments in finance in the areasof remittances, mobile banking, and equity capital raising Investment.

Crowdfunding

With the advent of investment crowdfunding, the process of raising equity capital has begun to become moretransparent and democratic. While investing in early and growth-stage companies used to be limited to a select few (generally institutional investors), new infrastructure and regulations have made it possible for individual retail investors to do so for a small sum in ventures they are passionate about and/or have other connections to. Each investor obtains shares of the new business in proportion to their investment.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

SeedInvest and FundersClub are two well-liked platforms for equity crowdsourcing. In addition, crowdfunding-like debt financing is possible on microlending websites like LendingClub and Prosper. In this asset class, individuals become debtors and earn recurring interest payments until the loan is finally repaid in full rather than holding stock in the firm. Additionally, P2P lending markets allow both individualsand businesses to purchase whole or partial loans.

Remittances

Remittances are yet another area where financial innovation is changing things. Remittances are financial transfers made by expatriates through wire, postal mail, or online transmission. Given the size of these transfers on a worldwide scale, remittances are economically significant for many of the countries they are remitted to. Early in the new millennium, the World Bank set up a database so that people could assess the costs of various transfer services. The Gates Foundation then began keeping track of remittances in 2011. Western Union and MoneyGram used to be the only companies that handled remittances, but in recent years, Start-ups like Transfer Wise and Wave have disrupted the industry with their more cost apps.

Remittances are getting more economical as a result of the development of Bitcoin, Ethereum, Stablecoins, and Blockchain technology. The decreased prices are consistent with the World Bank's Sustainable Development Goals (SDG), which call for remittance costs to drop from 7% to 3% by 2030.

Mobile Banking

Finally, significant advancements in mobile banking have been made for retail clients. Many banks nowadays, like T.D. Bank, have extensive applications with choices to deposit checks, make purchases, sendmoney to a friend, or locate an ATM right away. To prevent their personal information from being stolen, itis still crucial for users to establish a secure connection before enrolling onto a mobile banking app.

History of Cryptocurrency

The term "cryptocurrency" first appeared around the beginning of the twenty-first century, when the idea of digital monies protected by encryption began to catch on. The word combines the words "cryptography" with "currency." Although the use of secure communication methods known as cryptography extends back to ancient civilizations, the use of digital currency is a relatively new phenomenon.

The first and best-known cryptocurrency, Bitcoin, was developed in 2009 by a person or group of people operating under the pseudonym Satoshi Nakamoto. The 2008 financial crisis underlined the need for an alternative to the established banking system, which served as inspiration for the development of Bitcoin. Theblockchain technology that underpins cryptocurrencies was established with the publication of the "Bitcoin: A Peer-to-Peer Electronic Cash System" whitepaper for the Bitcoin cryptocurrency.

Another well-known cryptocurrency is Ethereum, which was introduced in 2015 after being conceived by programmer Vitalik Buterin in 2013. It introduced the idea of "smart contracts," which are contracts that maybe self-executing and have their conditions inscribed directly into computer code. The capacity of Ethereum to promote the creation of decentralised apps (DApps) on its platform, allowing for a wide range of use casesbeyond monetary transactions, is its distinctive selling feature.

A digital or virtual money that uses cryptography for security and runs on a decentralised network called a blockchain is what is referred to as a "cryptocurrency" in this article. The two most well-known examples areBitcoin and Ethereum, with several additional altcoins following in their shoes. Despite difficulties, cryptocurrencies have transformed the way we see financial institutions and continue to spur the developmentof new concepts and technology.

How Does Cryptocurrency Work?

Bitcoin is a peer-to-peer electronic currency system, according to its creator Satoshi Nakam. In this respect, itis quite similar to peer-to-peer file transfers, in which neither a central authority nor a regulator are involved. Indian cryptocurrency sales are anticipated to reach $222.70 million by 2023, according to Statista. Additionally, given the increasing popularity, people all over the world may benefit from the accessibility of cryptocurrencies, especially in underdeveloped countries where the infrastructure for traditional banking maybe weak or nonexistent. As a result, it is

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

reasonable to predict that cryptocurrencies will replace traditional currencies in the future, taking into account the trends, possibilities, and potential threats.

The need that the sender confirm a transaction with their private key provides the safety net in such a networkto prevent fraud. The shared ledger or database reflects the transaction after confirmation.

However, in a bitcoin network, only miners have the power to confirm transactions. To validate each individualtransaction, they must solve cryptographic riddles. They are compensated for their service with a reward and a transaction fee in that specific cryptocurrency

Each node quickly updates its ledger to reflect the change after a transaction has been broadcast around thenetwork and validated by miners. If a miner verifies a transaction, it also becomes irreversible and irrevocable. However, there is a significant catch to mining. The reason for this is that when a particular cryptocurrency gains in popularity and attracts more miners, the fees and reward per transaction for miners decline. For instance, the compensation for mining has decreased from the initial 50 bitcoins (BTC) to just 6.25 BTC as a result of the most recent halving in May 2020.

What is the Use of Cryptocurrency?

It is important to think about whether or not the fame that cryptocurrencies have acquired through time is real.Although it is still a long way from replacing conventional cash, cryptocurrency, especially Bitcoin, has garnered significant acceptance worldwide.

As a means of exchange

It wasn't initially extremely valuable to use Bitcoin to pay for products and services. However, over time, a number of businesses, including restaurants, airlines, jewellers, and apps, have begun to accept it as a legitimate form of payment.

One of the most well-known businesses that accept bitcoins as a valid method of payment is Apple Inc. In order to utilise it for App Store transactions, it accepts ten different kinds of cryptocurrencies.

India's economy has yet to thoroughly investigate cryptocurrencies as a workable payment method. However, it is expected that cryptocurrencies will quickly become popular in India with the help of powerful companieslike Apple and Facebook.

Investment

One of the most profitable investment possibilities at the moment is cryptocurrencies, particularly Bitcoin. It'sextremely dynamic value appreciation might show to be a great way to increase capital.

Individuals must be aware of this investing strategy's volatility, though. The most volatile asset price swings have been seen in Bitcoin, the most well-known cryptocurrency with the highest market share. For instance, in December 2017, the price of one Bitcoin fell from $19000 to $7000.

Such price volatility is normal given that cryptocurrencies are not founded in any physical change but rather on changes in popularity and trend.

What are the Different Types of Cryptocurrencies?

The majority of cryptocurrency variations are forks of Bitcoin.

The Bitcoin

It is known as "digital gold" and was the first cryptocurrency to ever be released. It has the highest market capitalization of any cryptocurrency at the moment ($172.76 billion). Satoshis are the equivalent of how rupeesand paise are divided in relation to one unit of Bitcoin.

Additionally, because to the way the Bitcoin network is set up, there can never be more than 21 million Bitcoins in circulation at once. Its market price is mostly determined by its restricted supply.

Altcoins

The name of this category refers to the majority of Bitcoin splits and derivatives. However, some Altcoins employ distinct algorithms and are exponentially different from Bitcoin. For instance, Ethereum, an altcoin, is not a money but rather a platform where companies may create blockchain-based applications.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

There are currently more than a thousand alternative coins. Ethereum, Factom, Litecoin, NEO, and other well-known alternative currency are only a few.

Tokens

These are byproducts of cryptocurrencies like NEO and Ethereum. These cryptocurrencies operate on the decentralised apps built using such alternative currencies rather than having their own distinct block chain. Tokens, on the other hand, have a very low value in comparison to the other two categories because they can only be used to buy goods from centralised or decentralised apps.

Ethereum (ETH)

Among the top ten list of cryptocurrencies in India, Ethereum is ranked second. It is a decentralised blockchain network that is powered by the Ether token and enables users to carry out transactions, stake their assets to earn interest, trade cryptocurrencies, utilise and store non-fungible tokens (NFTs), play games, and more. In 2021, Ethereum rose to the top of the NFT and decentralised finance (DeFi) players.

Tether (LUNA)

This coin's value is less erratic since it is linked to the value of the dollar, making it a stable currency. This coin is well-liked by investors who are hesitant to engage in volatile cryptocurrencies but yet want to take part in the cryptocurrency industry. It has made its way to the top cryptocurrencies in India. Tether is also utilised as an exchange medium since it is a stable cryptocurrency whose value fluctuates less frequently.

Binance Coin (BNB)

One of the most popular cryptocurrencies that may be used to trade and cover transaction costs on the Binance cryptocurrency exchange is Binance Coin. The currency may be used to make payments, conduct trades, and make trip arrangements. Additionally, you may swap or sell this currency for other cryptocurrencies like Ethereum or Bitcoin.

Ripple (XRP)

Another trend in the cryptocurrency industry is XRP. It is an open payment network that allows the transfer of different currencies. The coin is associated with a for-profit organisation called Ripple, which seeks to improve the constrained nature of financial networks. It's interesting to note that Ripple doesn't utilise the PoW or PoS systems. To confirm various transactions, the currency employs a distributed consensus method. As a result, it ranks among India's most distinctive and popular cryptocurrencies.

Terra (UST)

Terra is a block chain payment system for stable coins that relies on maintaining a balance between LUNA and Terra Stable Coins. The value of actual currencies is reflected in Terra stable coins like TerraUSD. This system is run by Luna, which also helps to increase the supply of Terra stable currencies. However, according on supply and demand, Luna and Terra stable currencies coexist. The network encourages users to burn their Luna and produce additional stable coins when a stable coin's value is higher than that of its underlying currency. As the value of stable currency decreases, users burn Terra and produce more Luna.

Cardano (ADA)

When it comes to market capitalization, Cardano is among the most valuable cryptocurrencies. A wide range of decentralised banking apps, new crypto currencies, games, and other applications may be created using this adaptable, durable, and scalable blockchain platform for smart contracts.

Solana (SOL)

Numerous new DeFi apps for Solana are being developed. Its unique hybrid proof-of-history and proof-of- stake method underpins its rapid and effective transaction processing. The currency is also among the best cryptocurrencies for investors who don't want to cope with Ethereum's unstable transaction costs.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

Polkadot (DOT)

A novel interoperability protocol that links different chains is called Polkadot. Additionally, it enables parallel blockchains to perform transactions and exchange data. All of these things are accomplished without sacrificing security. Developers may also easily build their own blockchain leveraging the security of this platform. It's interesting that investors have given up to $200 million to Polkadot.

Litecoin (LTC)

Litecoin, the first of these alternative currencies, debuted in 2011. Two years after Charlie Lee first introducedBitcoin, it was developed. It is a decentralised cryptocurrency built on a block chain. The main motivation fordeveloping this coin was to overcome Bitcoin's constraints. Although this cryptocurrency and Bitcoin have a lot of similarities, it has a higher transaction speed. Additionally, Litecoin is a profitable investment because to its large total supply. This currency may be used for a variety of purposes, including transferring money abroad and buying products and services. Additionally, you may carry out any such transactions on our site directly without using any middlemen.

How to Buy Cryptocurrency?

Due to the abundance of possibilities, buying units of Bitcoin is easier than buying other types of cryptocurrencies. People have the option to buy it on cryptocurrency exchanges, using gift cards, or through investment trusts

How to Store Cryptocurrency?

Cryptocurrency units are held by entities in both offline and online wallets. Each of these wallets contains a private key (used to approve payments) and a public key, which is the wallet address. In any event, the private key is what one actually owns, not the coin itself.

However, organisations may choose from a large selection of cryptocurrency wallets, each serving a distinct function. Online wallets are mostly used for standard transactions. Online crypto-wallets have been offered byApple, J.P. Morgan Chase, Visa, and Facebook, among others. On the other hand, offline or cold wallets are kept on a person's hard drive and are used to keep bitcoin secure.

Cryptocurrency Advantages and Disadvantages

The Merits Associated with Cryptocurrency

Protection against Inflation: Over time, inflation has caused the value of various different currencies todecline. The source code specifies the value of each coin. Its value increases as demand increases, keepingup with the market and, over time, reducing inflation.

Security and privacy: in relation to cryptocurrencies have long been major issues. The block chain ledgeris composed of several challenging mathematical puzzles. Bitcoin transactions are therefore safer than traditional electronic transfers. Cryptocurrency use pseudonyms that are unconnected to any user, account,or anything maintained that may be linked to a profile in order to increase security and anonymity.

Self-Governed: The administration and maintenance of any currency are essential to its growth. Cryptocurrency developers and miners retain transactions on their hardware in exchange for a transactionfee. Since miners are paid for their work, they maintain the integrity of the cryptocurrency and maintain the decentralisation of records by keeping transaction records up to current and correct.

Decentralisation: The fact that cryptocurrencies are mostly decentralised is a key benefit. Many cryptocurrencies are controlled by companies who produce them before they are offered on the market, bypeople who use them and who hold significant amounts of the coin, or by both. Decentralisation ensures that no one entity controls the flow and value of the coin, which, in turn, makes it stable and safe, in contrast to fiat currencies, which are controlled by the government. This serves to keep the currency monopoly free and in check.

Simple Transfer: Historically: the greatest choice for transfers has been cryptocurrencies. Whether theyare domestic or foreign, cryptocurrency transactions happen really quickly. The verification is incredibly quick to accomplish because there are so few obstacles to overcome.

Demerits Associated with Cryptocurrency

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

Some cryptocurrencies can only be purchased using one or a small number of fiat currencies: Somecoins cannot be purchased using other fiat currencies. This compels the user to first trade these currenciesinto a significant currency, such Bitcoin or Ethereum, and then utilise other exchanges to convert that currency to their preferred one. For a small number of cryptocurrencies, this is true. As a result, unnecessary transaction costs are added to the process.

Hacks: Exchanges are not very secure, despite the fact that cryptocurrencies are. In order to properly runtheir user ID, the majority of exchanges keep user wallet information. These details are susceptible to theftby hackers, who can then access several accounts. Once they have access, these hackers can immediatelytransfer money from those accounts.

Bitcoin worth hundreds to millions of dollars: has been stolen from certain exchanges, including Bitfinex and Mt Gox, in recent years. Although the majority of exchanges are currently quite safe, a new hack is always a possibility.

No refunds or cancellations are permitted: The sender cannot get their money back if there is a disputebetween the parties involved or if they accidentally transferred money to the wrong wallet address. This may be used by lots of people to steal money from other people. One can easily be created for a transactionfor which they never received the goods or services because there are no refunds.

Opportunities and potential risks in Cryptocurrency

Despite being a relatively new concept, Bitcoin is undeniably here to stay due to all of its advantages. But alongwith opportunities come possible hazards that should be considered.

The idea may increase the unbanked population's access to financial services. Digital wallets and internetconnection enable people in underdeveloped areas to access financial products and engage in the global economy.

Additionally, cryptocurrencies enable quick, safe, and inexpensive cross-border transactions, simplifying the process and making it simple for individuals and businesses to do international business.

Cryptocurrencies provide fresh investment options and the chance to diversify a portfolio. As a new asset class, cryptocurrencies have the potential to provide significant profits and can act as a safeguard against conventionalfinancial instruments. Other businesses outside banking may undergo a revolution thanks to the blockchain technology that underpins cryptocurrencies. Supply chain management, identity verification, and data privacymay all benefit from the openness, immutability, and security of blockchain technology.

Nowadays, there is no one-size-fits-all approach to making financial decisions. The ideal technique for success is to create a plan that is exactly matched to each individual's needs because everyone has distinct financial goalsand risk tolerances. Thus, it is crucial to take professional solutions into consideration in order to acquire the bestbargain and minimise potential risks including regulatory uncertainty, market volatility, security, and fraud.

Trends

Nowadays, there is no one method that works for all financial decisions. A plan that is specifically suited to eachperson's needs is the greatest way to achieve success because everyone has different financial goals and risk tolerances. Therefore, it's crucial to think of expert solutions to avoid possible dangers including regulatory ambiguity, market volatility, security, and fraud in order to reduce the grey areas of cryptocurrencies.

DeFi, which provides decentralised alternatives to conventional financial services, is also a new movement thatis gaining significant traction. Furthermore, the market is continuously changing as new cryptocurrencies continue to emerge. We can anticipate the emergence of new cryptocurrencies with innovative features and uses in 2023 and beyond. It is fair to assume that these modifications will impact the financial landscape and democratise access to financial services.

II. CONCLUSION

Since cryptocurrencies tend to be volatile, investing in them may occasionally be dangerous. However, there issome risk associated with any type of investment. However, one should always conduct rigorous research to minimise dangers, especially when considering investments with their hard-earned money.

In 2023 and beyond, cryptocurrencies have the potential to drastically change how we utilise money. It is a sought-after substitute for conventional currencies due to its decentralisation, transparency, affordable transaction costs, quick transactions, and worldwide accessibility. Cryptocurrencies provide better financial stability and securitysince they run on a decentralised network and are not controlled by governments or financial institutions. This is where the public ledger's transparency may be beneficial in the fight against fraud, money laundering, and otherillegal activity.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, January 2023

By 2023, Statistic projects that the Indian cryptocurrency industry will have grown to $222.70 million. Additionally, if cryptocurrencies gain popularity, their availability around the globe may be especially advantageous for those in underdeveloped countries, where traditional banking infrastructure may be constrainedor non-existent. Therefore, it is safe to claim that cryptocurrencies will be the future of money based on the trends,opportunities, and potential hazards.

REFERENCES

[1]. https://cleartax.in/s/top-cryptocurrency-list-in-indiahttps://groww.in/p/cryptocurrency
[2]. https://timesofindia.indiatimes.com/blogs/voices/the-future-of-cryptocurrency-trends-opportunities- and-potential-pitfalls/
[3]. https://www.moneycontrol.com/msite/wazirx-cryptocontrol-articles/the-journey-of-cryptocurrencies- in-india/