



CRYPTOCURRENCY

Dr. Varsha Agarwal,

Assistant Professor,

Centre for Management Studies Jain (Deemed-to-be-university), India

Email Id: varsha_a@cms.ac.in

Contact no.: 9916053000

Sanya Rathod

Student, BBA,

Centre for Management Studies Jain (Deemed-to-be-university), India

Email Id: sanya_gr2019@cms.ac.in

Contact no.: 9036391793

Vinamre Khated

Student, BBA,

Centre for Management Studies Jain (Deemed-to-be-university), India

Email Id: vinamre_k2019@cms.ac.in

Contact no.: 9036391793

Prerana Bhandari

Student, BBA,

Centre for Management Studies Jain (Deemed-to-be-university), India

Email Id: prerana_b2019@cms.ac.in

Contact no.: 9036391793

ABSTRACT

Cryptocurrency also known as virtual currency, exists only digitally and does not rely on banks for transactions. It uses encryption to verify transactions and thus got the name cryptocurrency. This suggests advance coding is involved in storing the data. It aims to provide security and safety to its users.

It is distributed over a large number of devices. It uses organizational methods like blockchains to ensure integrity of the transactional data. Using the block chain technology is a complex process but the transactions made using this technology make it hard for hackers to tamper with. Blockchain is a distinct type of database that stores data in blocks which is then chained together. Data base collects data and stores it electronically on devices. Once a block is filled with data it gets attached to previous block forming a chronological order of the data. The decentralised database managed by multiple participants is known as Distributed Ledger Technology (DLT). In this transactions are recorded with a well-established cryptographic signature called hash. Blockchain is a different kind of technology which is operated by the people who use it, therefore the owners of cryptocurrency have trust that it has some value. Blockchain is a growing and reliable platform that also adds security to the user's ledger.

SUMMARY OF RESEARCH

This paper focuses on the evident rise in cryptocurrency and how it works. In this paper we recognise that “digital currency could become a key currency for settling transactions”. It gives us an insight as to what a boon it might be for the government as well day to day investors as it helps their portfolio to grow. This paper also shows that regardless of cryptocurrency being volatile in nature, it is still attracting a lot of investors.

The authors of this paper Sanya, Prerana and Vinamre conclude that cryptocurrency is an emerging field and is gaining popularity day by day. It is considered to be a great platform of investment and will be the future of payments.

PURPOSE STATEMENT

This research has been conducted in order to study and understand cryptocurrency. For the purpose of this study a questionnaire was used to help us understand the response of people towards cryptocurrency. The main aim of this research was to analyse the impact of cryptocurrency on its people and the economy. This research study was conducted in Bangalore, Karnataka, India during the month of August, 2021. The demographic limitation of this study is India.

KEY WORDS

Very common recurring words/keywords in the paper include: cryptocurrency, bitcoin, virtual currency, blockchain, cryptography.

INTRODUCTION

Cryptocurrencies is a digital asset which is a subset of digital currencies and are also known as virtual or alternative currencies. It uses cryptography to secure transactions and control creation of additional units of money. Cryptography is the process of transforming plain text into codes to protect it from malicious third parties. It is a method used to store and protect information, so that only those for whom the information is intended can read it.

From 1998-2009 online currencies like B-Money and Bit Gold have tried developing online currencies with ledgers secured by encryption but were unsuccessful at fully establishing it. Bitcoin which is a very popular form of cryptocurrency was introduced in the year 2009 as the first decentralized cryptocurrency. It is also known as “altcoins” a blend of bitcoin alternative. Bitcoin originated in the year 2009 when Satoshi Nakamoto published a paper called ‘Bitcoin- A peer to peer electronic cash system’.

Cryptocurrencies are limited as a result of which their value keeps increasing. There are 5000 different currencies in the world that want to get in on cryptocurrency. \$1635 billion is the estimated market capitalisation of all cryptocurrencies and bitcoin alone is more than Rs.50 lakh crore. 10-12 million people are believed to be active investors and traders in cryptocurrency in India. The trading hours of cryptocurrency are very flexible as its open 24/7.

HOW CAN YOU USE CRYPTOCURRENCY?

Cryptocurrency does not rely on a third party like financial institutions for exchange for exchange of currencies. Cryptocurrencies are decentralized and digitally mined. Mining is used to give value to money. Cryptocurrency is not a form of payment that is accepted quite yet to make purchases. There are chances of this changing in the near future thus allowing users to use cryptocurrency as a form of payment. For example, at e-Gifter, users can use bitcoin to buy gifts cards for Dunkin Donuts, Target, Apple etc. For example, there are also chances where users might be able to load cryptocurrency to a debit card that can convert crypto assets into dollars, this is method followed in US. You may also use crypto as an alternative investment option outside of stocks and bonds.

HOW CAN YOU INVEST IN CRYPTOCURRENCY?

Cryptocurrencies are unregulated instruments. Therefore, anyone can start a crypto exchange. Therefore, one should always check the background like its founders, core team etc. and then start investing. Exchanges frequently have distinctly low fees, however they have a tendency to have extra complicated interfaces with multiple trade types and advanced performance charts, all of which can make them intimidating for new crypto investors. Few well known exchanges are Coinbase, Gemini, BitFlyer, Binance.US etc. These platforms provide user-friendly easy purchase options for beginners. However, a certain amount of cost is

charged to make use of these options. In case people find it difficult to trade on their own they can take help of cryptocurrency brokers. Cryptocurrency brokers are middlemen between the buying party and the cryptocurrency exchange, who charge a certain amount for their services. Cryptocurrency brokers are pretty convenient however there are certain restrictions on moving your cryptocurrency holdings off the platform. Few examples of cryptocurrency brokers are Robinhood, SoFi, Binance India etc. Nonetheless advanced crypto investors hold their coins in crypto wallets for extra security and few choose hardware crypto wallets which provide higher security as its not connected to the internet.

REVIEW OF LITERATURE

SoK: Research Perspectives and Challenges for Bitcoin and Cryptocurrencies

Due to Bitcoin's decentralized nature and its lack of formal specifications, this paper tackles the first systematic exposition of the cryptocurrency. Through a review article, the authors collect and organize all of the prior work related to Bitcoin, and then identify three key components of its design that can be decoupled.

Bitcoin-NG: A Scalable Blockchain Protocol

After the publication of their influential paper on selfish mining in 2013, Cornell investigators Eyal, Gencer, van Renesse, and Sirer present Bitcoin-NG, a revolutionary method that uses key blocks and micro blocks to bypass the trade-off between network latency and transaction throughput.

The Bitcoin Lightning Network: Scalable Off-Chain Instant

In 2015, Poon and Dryja presented their Bitcoin Lightning Network, which is a conceptual framework that enables instant transactions between multiple participants. Unlike traditional Bitcoin transactions, which are typically posted to the Blockchain, lightning transactions are not.

The Bitcoin Backbone Protocol

The Bitcoin Backbone Protocol is a proof-of-principle security model that draws on the principles of chain quality and common prefix. It provides one of the first examples of approvable security model for a cryptocurrency's consensus algorithm.

Confidential Transactions

Bitcoin's decentralized nature has always attracted a strong desire for privacy. This is evidenced by the number of people who have made significant contributions to the development of privacy-enhancing techniques.

The Marketing Strategy of the Cryptocurrencies

The main purpose of this paper is to introduce the fundamental thinking behind cryptocurrencies and their marketing strategy. It aims to provide a comprehensive analysis of the problem and its solutions.

Transformative effects of IoT, Blockchain and Artificial Intelligence on cloud computing: Evolution, vision, trends and open challenges

The study aims to identify the various emerging technology paradigms that will influence the evolution of cloud computing. These include Blockchain, AI, and IoT.

Stake Shift in Major Cryptocurrencies: An Empirical Study

The paper was written by a group of researchers headed by Jacob Illum, Peter Gai, Bernhard Haslhofer, and Rainer Sttz. It delves into the various aspects of validating transactions in blockchain.

Bitcoin and Its Prospects in India

Although cryptocurrencies are gaining acceptance globally, they are not expected to replace paper currencies anytime soon. The main challenge for law enforcers and users is to structure it in a way that is secure and doesn't expose users to exploitation.

Cryptocurrency-Scope in India

Despite the ban on cryptocurrencies, the demand for them is still high and it will be difficult for the government to control transactions. The Blockchain Foundation of India stated that over 30 new exchanges have joined the platform in the last two months. Blockchain offers a lot of potential for improving data storage. Despite the restriction on bitcoin, the Blockchain is being used by a number of government agencies (Andhra Pradesh, Maharashtra, and so on). Instead of routing transactions through banks, over-the-counter markets may emerge in the future.

RESEARCH METHODOLOGY

RESEARCH OBJECTIVES

- To understand the concept of cryptocurrency
- To analyse and understand people's reaction towards cryptocurrency
- To analyse the challenges that cryptocurrency will face in the future
- To analyse and understand if people are willing to shift from paper currency to digital payment
- To study which platform people would prefer investing in

DATA COLLECTION TOOLS

The type of information used for this research is mainly primary in nature and the data has been collected through primary sources by the survey method. A questionnaire form has been used to collect the data which was done through an online survey. The data is quantitative in nature. All the questions used are closed ended. Closed-ended questions are easily analysable, comparable with other answers and permit saving time for the respondent.

SAMPLING DESIGN

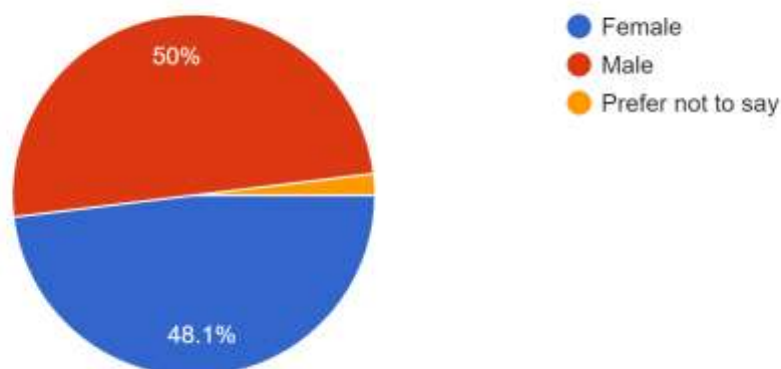
To avoid the loss of valuable resources, the sample size decided to be 52.

DATA ANALYSIS AND INTERPRETATION

The primary objective of this research paper is to understand and analyse how cryptocurrency operates. The primary data collected draws a conclusion on how people would retaliate to cryptocurrency. The recorded responses were a total of 52 respondents. Analysis on variations of responses like how many people would prefer investing in cryptocurrency have been recorded. The questionnaire contains a total of 9 questions so far which shows how many people have invested in cryptocurrency, it also covers if people would actually prefer investing in cryptocurrency in the future. The questionnaire also helps us know if people find cryptocurrency a safe investment option. The respondents are required to choose one option based on yes or no questions. The first two questions consist of demographics like gender and age. These Pie charts are going to show how different respondents reacted towards the survey and there are different sets of questions to know the behaviour of consumer towards cryptocurrency.

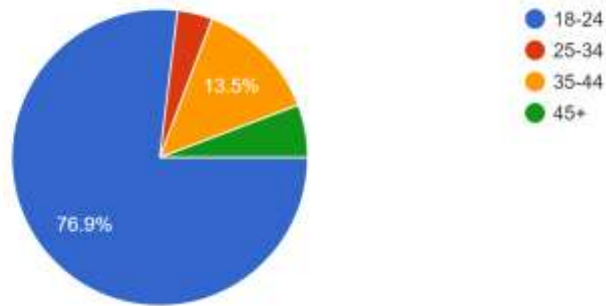
Gender

52 responses



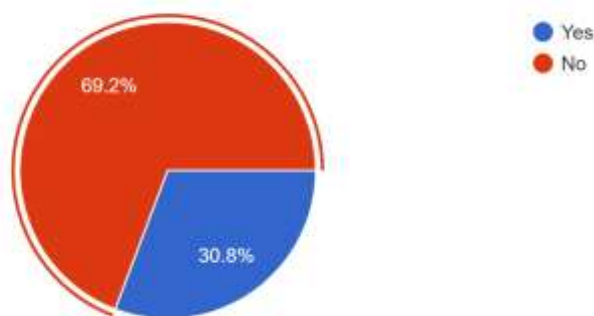
In this questionnaire, we have recorded the gender of the respondents, as shown in the chart, 50% are male, 48.1% are female and 1.9% come under prefer not to say category. This helps to give a bigger and clear picture on consumer behaviour.

Age group
52 responses



In this questionnaire, there are different age group respondents, as shown in the chart, 76.9% are between the 18-24 age group, which are the maximum number of respondents who participated in the survey and next to the maximum number of respondents are 35-44 of age group with 13.5%, and 3.8% are between the 25-34 of age group and the least number of respondents are from the age group 45 and above.

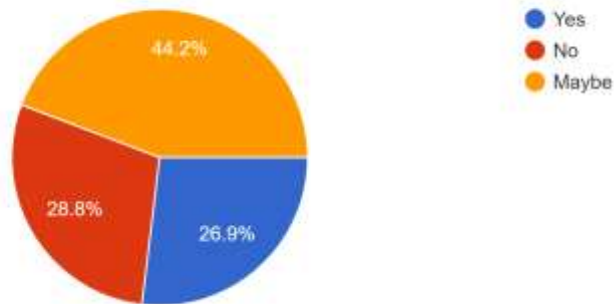
Do you invest in Cryptocurrency ?
52 responses



This question shows how many respondents have currently invested in cryptocurrency and how many are yet to invest in it. According to the figure maximum number of respondents that is 69.2% of the respondents are yet to invest in cryptocurrency and the rest of them that is 30.8% are active investors.

Do you think Cryptocurrency is a safe investment ?

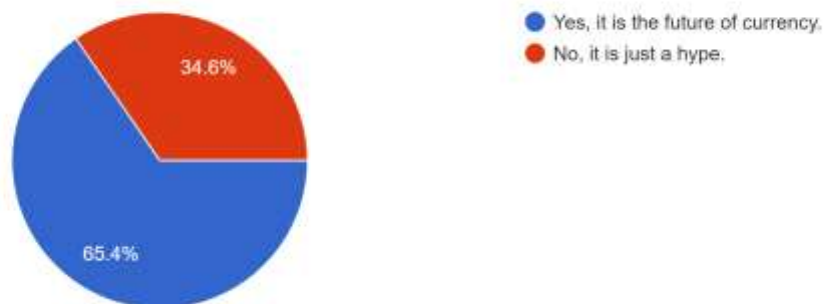
52 responses



In the above figure we can see that 44.2% of the respondents are not sure if cryptocurrency is a safe investment or not. 28.8% are sure that cryptocurrency could be a safe investment whereas 26.9% are certain that it is not safe investment.

Will cryptocurrency be the future or is it just a hype ?

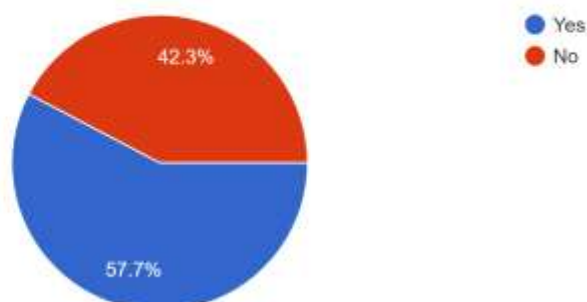
52 responses



In the above figure and question 65.4% of respondents are certain that cryptocurrency is the future of currency. Maximum number of respondents believe that cryptocurrency will be the future of payments. Nonetheless 34.6% of the respondents are indecisive about cryptocurrency being the future.

Do you know how a cryptocurrency is created and how it works ?

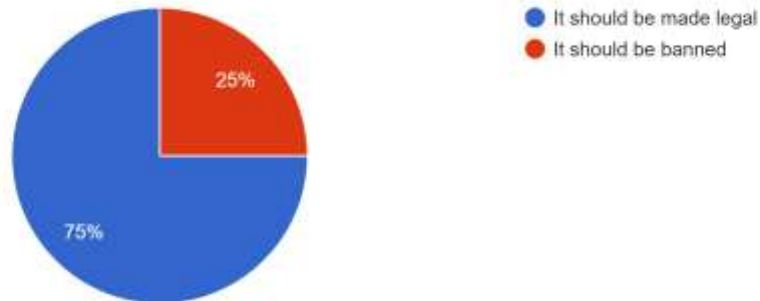
52 responses



In the above figure we can see that 57.7% of the respondents are aware about how cryptocurrency is created and how it works. It shows that maximum number of respondents are well acquainted with the working of cryptocurrency. Yet 42.3% are oblivious to the same.

Should cryptocurrency be made legal or should it be totally banned ?

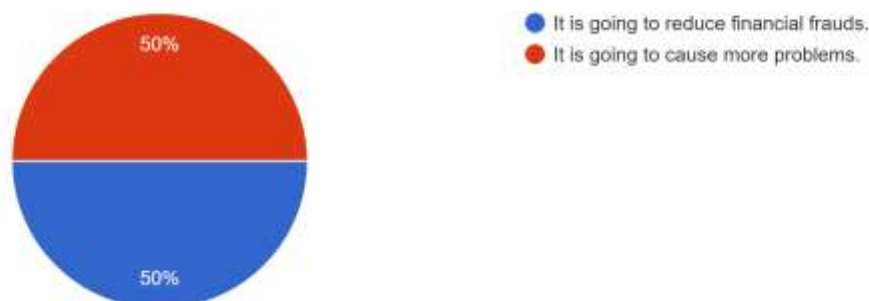
52 responses



According to the above figure we can see that where 25% believe in putting a ban on cryptocurrency, 75% of the respondents believe that cryptocurrency should be made legal so that it can be used as platform for investment and payments.

Do you think cryptocurrency is going to reduce the financial frauds or is it just going to cause more problems ?

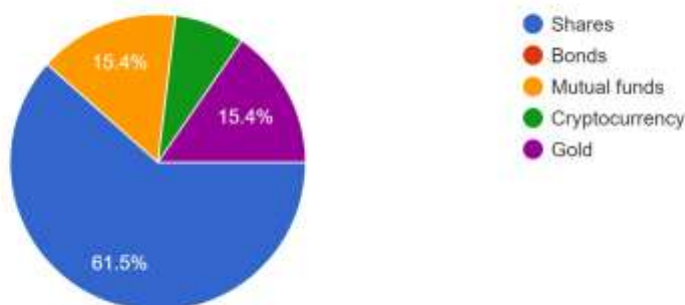
52 responses



This particular figure shows a neutral answer from the respondents.

what do you prefer investing in ?

52 responses



The above question states what kind of investments the respondents are interested in and as you can see in the figure maximum number of respondents which is 61.5% would choose to invest in shares. Right next to the maximum number is 15.4% which is the same for both gold and mutual funds. 7.7% of the respondents have shown interest in investing in cryptocurrency whereas none of the respondents would prefer investing in bonds.

FINDINGS

The purpose of this research paper was to investigate the current status of cryptocurrency in an attempt to understand better its plausible future.

The research shows that currently only 30.8% people currently invest in cryptocurrency, people who do not think it is safe to invest in cryptocurrency outnumber people who think it is safe. However, majority people still do not know. This shows that the current status of cryptocurrency is dicey and people need more clarity and safety should cryptocurrency thrive.

This research also showed that more number of people think cryptocurrency could be the future of currency and 57.7% of people have knowledge of how cryptocurrency works. This indicates some hope for cryptocurrency.

The research found 75% people want cryptocurrency made legal. Although, preference shown by people to invest in cryptocurrency stands at a shocking low of 7.7%. When asked about if cryptocurrency will be a contributing factor in reducing financial frauds or shall only cause more problems, the results indicate a 50-50 chance of either possibilities.

The research clearly indicates that people are confused, however, they are not completely closing their options. The scope for cryptocurrency is still open. Currently people are choosing more stable and familiar ways to invest their hard earned money, cryptocurrency needs to compete with these. What the future of cryptocurrency needs is, for people to be more educated on the subject and legalization. Cryptocurrency is a high risk investment and so would perform better with risk loving people.

CONCLUSION

Cryptocurrency is on the rise and has a great scope in the global financial system. This digital payment model has been attracting a lot of investors lately. According to our findings we can see that people are interested in cryptocurrency but are not willing to invest in it as it has not been regulated and controlled by the government of India. Nonetheless cryptocurrency does involve risks like price volatility, potential for large losses, the transactions are easily exposed to illegal activities and the payments are not reversible. Cryptocurrency has a great potential of becoming the future digital payment model if regulated and controlled by the government of India, which will also help in boosting the economy.

Despite the flaws, cryptocurrency is accepted in many countries and can help in transforming the economy of developing countries, if accepted and regulated. This digital platform does not rely on a financial institution for its transactions. According to our findings maximum number of people are aware about how cryptocurrency works and would want it become legal in the future. It adds to the investment portfolio of an investor which is beneficial to them. It is known as the new age technology and has a huge market presence all over the world. According to the recent findings the government will introduce a bill that will ban all the private cryptocurrencies and create an unrestricted digital currency. We hope for cryptocurrency to become legal in India as there are many potential investors out there willing to invest in cryptocurrency.

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