

# An overview of Cryptocurrency: Challenges and Issues

**Dr B. Sankarbabu** , Associate Professor, Institute of Public Enterprise, Hyderabad.

**Dr Rajkumar Pillay**; Assistant Professor, Institute of Public Enterprise, Hyderabad

## **ABSTRACT:**

Many activities in our everyday lives have been consolidated online as a result of the fast growth of information and communication technology, making them more flexible and effective. A significant increase in the number of internet users has triggered virtual word ideas and spawned a new economic phenomenon known as cryptocurrency, which is designed to make financial transactions like as buying, selling, and trading more convenient. Virtual worlds, peer to peer networks, online social networks, online social games, and peer to peer networks are just a few examples of how cryptocurrency represents valuable and intangible goods that may be utilised electronically in many applications and networks. In recent years, the usage of virtual money has grown common across a broad range of various platforms. This research explores the expectations of cryptocurrency users on the future of the coin. It also investigates the level of trust that consumers have in interacting with cryptocurrencies at a time when the usage of such virtual money is not completely supervised and regulated. Furthermore, the article aims to assess the expansion of bitcoin usage in order to have a thorough picture of the situation from a practical standpoint. The report also examines the ways in which 21 different nations have reacted to cryptocurrencies in terms of rules and legislations, in order to generate a clear picture of the influence of cryptocurrencies on various laws in India that are intended to control them.

**KEYWORDS:** Information and communication technology, Cryptocurrency, monetary systems

## **INTRODUCTION:**

There is no question that the information and communication technology (ICT) age has brought along several golden chances in a variety of fields. Finance and business are two industries that have benefited from the advancement of technology and the availability of internet connections. An increasing number of internet users has triggered the activation of virtual world ideas, resulting in the emergence of a new commercial phenomenon. As a result, new sorts of trade, transactions, and currencies have emerged in recent years. Cryptocurrency is one of the fascinating financial forms that have developed in recent years, and it is one of the most widely used. If we exclude traditional money from the definition, cryptocurrency (CC) may be described as any means of exchange that can be utilized in a wide range of financial transactions, whether they are virtual or real in nature. Cryptocurrencies are valuable and intangible assets that may be utilised electronically or virtually in a variety of applications and networks, including online social networks, online social games, virtual worlds, and peer-to-peer networks, among other things.

The article investigates a wide range of characteristics of cryptocurrency platforms in an effort to provide answers to the research's fundamental questions, which are "Will cryptocurrency be the next currency platform?" and "Will cryptocurrency be the next currency platform?" "Do virtual currency systems provide sufficient security to be used?" It studies various Cryptocurrency platforms in order to give in-depth insight into the methods of implementing, regulating, issuing, spending, and trading Cryptocurrencies, as well as a helpful and well-organized categorization of Cryptocurrencies (CC classification). In addition, the article examines existing cryptocurrency systems and platforms in order to identify and extract concerns, difficulties, issues, and obstacles that may be present. It examines the relationship between real-world laws and the use of cryptocurrency with the goal of highlighting the significant impacts of the cryptocurrency concept on some real-world aspects such as real-world monetary systems, business industries, rates of law-breaking, and payment methods for criminal activity. Because of the findings, all parties involved in and impacted by cryptocurrency platforms are reminded of the critical need of maintaining tight control over cryptocurrency usage. Governments, operators, and end users are among the groups involved. The findings also serve as a warning to politicians and virtual currency providers to issue and implement stringent regulations, laws, and legislation to regulate virtual currency systems in the future. Additionally, this study has scientific information that will open the door to new avenues of investigation in the future.

The remainder of this work is structured as follows: The second section delves into the Global Cryptocurrency Market and the role that India plays in it. Section three provides an overview of virtual currency, including a taxonomy of virtual currency platforms and a description of the commercial activities associated with virtual currency platforms. The fourth section examines and discusses the information gathered. Section five delves into the major obstacles and difficulties that will be encountered throughout the implementation of VC. Section six examines a number of real-world rules that have an impact on the usage of virtual currencies in India. It also includes information on the legal status of venture capital in various nations. Finally, section seven provides a summary of the findings and gives recommendations for additional study.

## THE CRYPTOCURRENCY MARKET

### A. *The Global Landscape*

A total of 1764 Cryptocurrencies are accessible and exchanged on about 10422 exchanges as of March 18th, 2012. The total market capitalization of all cryptocurrencies is \$275,797,435,861, which is equivalent to \$275 billion dollars. & the 24-hour volume was \$ 18,207,953,654, which is equal to \$18 billion.

<i>Name</i>	<i>Price</i>	<i>Market Cap</i>
Bitcoin	\$8254.8	\$ 142.2 B
Ethereum	\$ 528.33	\$ 52.97 B
Ripple	\$ 0.65492	\$ 25.92 B
Litecoin	\$ 151.22	\$ 8.52 B
Monero	\$ 208.7	\$ 78.16 M
Neo	\$ 58.98	\$ 260.1 M

Bitcoin has the greatest amount of market domination in the cryptocurrency industry, accounting for around 45 percent of total market share and a market valuation of \$142.2 billion (Rs 9.25 Trillion). Its current market value is \$ 8254.8, which is about Rs 5,35,767.

Other cryptocurrencies, except bitcoins, are known to as altcoins, and they include the other 1550 currencies that are traded on the cryptocurrency exchanges. Some of them are referenced in the table in an oblique manner.

### **ITS RISE IN INDIA:**

A number of factors have contributed to India's recent economic resurgence, which has seen its population of over 1 billion people rise to over 1 billion. The scope of the country's development has been recognised by the International Monetary Fund, which has designated it as the fastest-growing emerging market. More over 40% of the country's population has access to telecommunications and internet services, according to official figures. This mysterious, historical, and culturally rich nation is also one that does not lag behind when it comes to technical innovation and development. Bitcoin and other cryptocurrencies have been in operation in the nation for a number of years at this point, according to the government. The current condition of the Indian cryptocurrency market is discussed in this article.

Already in 2012, small-scale Bitcoin transactions were taking place in the United States on a local level. At the time, Bitcoin was still in its early stages of development, with few crypto-hobbyists showing an interest in the currency. At the end of 2013, Bitcoin was starting to achieve widespread acceptance across a wide range of jurisdictions. In the same year, a small number of companies started accepting Bitcoin as payment. Earlier this year, a vintage-era pizza business named Kolonial in Mumbai's Worli neighbourhood became the first food service in the country to accept Bitcoin payments.

A short period of time afterwards, cryptocurrency exchanges started to crop up all across the nation to meet the demand. In India, cryptocurrency exchange and trading services were first offered by pioneers such as BtcxIndia, Unocoin, and Coinsecure, among others. Others, including as Zebpay, Koinex, and Bitcoin-India, have been added to the list as time has progressed. In recent years, the crypto industry in India has expanded from a low level in 2013 to what it is now, thanks to the spread of cryptocurrency trading and exchange platforms. Additionally, there are a number of over-the-counter (OTC) cryptocurrency businesses in the nation in addition to these online cryptocurrency exchanges. The presence of multiple Bitcoin ATMs in key Indian cities further contributes to the development of a cryptoeconomic centre in the country.

When Prime Minister Narendra Modi announced the beginning of a demonetization strategy on November 8, 2016, the world took notice. The government's decision to demonetize nearly 86 percent of the country's paper money sent shockwaves over the entire Indian subcontinent, according to media reports. People who had huge cash holdings sought a new method of preserving their fortune without incurring major tax obligations or being subjected to a slew of government investigations. The practise of purchasing large quantities of Bitcoin or other cryptocurrencies and then selling them at a later date has become commonplace among some. The result of this was that they were able to successfully avoid paying substantial taxes if they had attempted to move their riches via the banking system.

The demonetization strategy has also sparked significant criticism of the country's major financial landscape as a result of its implementation. The value of 86 percent of the country's paper currency in circulation had been rendered worthless in less than 24 hours as a result of a single government proclamation. Indians began looking for alternative currency models after realising that fiat money isn't exactly "real" money because it isn't backed by anything. Bitcoin and other cryptocurrencies have become more popular among Indians, particularly among those in the 40 percent income band who have access to the Internet.

Although the demonetization policy implemented in 2016 may have prompted the adoption of cryptocurrencies by a significant portion of the population, realities soon emerged that have stifled the growth of the cryptocurrency market in the country since then. Indian bitcoin market capitalisation is just 2 percent of the overall worldwide cryptocurrency market capitalization, despite the country's large population. The fact that such a large economy is only playing a minor role can be attributed to the high value of cryptocurrencies as well as the government crackdown led by the RBI. The typical level of cryptocurrency prices in India is on the higher end of the spectrum. Comparing market rates to the worldwide average, market rates are 5 to 10% more than the global average. As a result, Indians may only participate in crypto trading on a sporadic basis on foreign cryptocurrency exchange platforms, which means they can only make a marginal contribution. The absence of large-scale mining facilities and severe government controls on international money movement make it very difficult for Indians to deal with many of the world's largest cryptocurrency exchange platforms. The Reserve Bank of India (RBI) has been vocal in its warnings to people about the dangers of cryptocurrency trading in recent years. While the government of the nation hasn't outright outlawed cryptocurrencies, they haven't been very supportive of them either. From the perspective of India, the direction in which the cryptocurrency industry will evolve in the next months will be revealed.

### THE CRYPTOCURRENCY BUSINESS

Rosenzweig, the CEO of the IMVU game company, compared virtual currencies to airline miles, which are also considered to be a type of virtual currency, in order to make them more understandable, and he defined them as "symbolic currencies [that] you can accumulate and then switch into something you care about" to make them more understandable. Users benefit from virtual currencies since they make it easier to conduct trade operations and complete financial transactions. At the same time, they made the process of earning, spending, exchanging, and accumulating money more convenient and efficient. They may be used to buy virtual items inside the same environment or to trade currencies across various platforms, depending on the platform in question. Additionally, they are used to purchase both digital and physical things. Virtual currency provides tremendous opportunity for businesses and operators to monetize their apps and, in turn, expand their income streams.

Various kinds of cryptocurrency are used on various platforms, including social networks, social games, loyalty points, and peer-to-peer networks. Social networks, social games, and loyalty points are all examples of cryptocurrency applications. Censored cryptocurrency platforms and decentralised cryptocurrency platforms are the two primary kinds of cryptocurrency platforms to consider. The centralised cryptocurrency system, which is analogous to a central bank, may be characterised as a cryptocurrency system that has a centralised repository that stores all of the cryptocurrency. In such repository, the administrator has complete control over the movement of the Cryptocurrency value between individuals or from one geographical place to another. Decentralized cryptocurrency, on the other hand, may be characterised as a cryptocurrency system that does not have a centralised repository and does not have a single administrator. It is possible to obtain decentralised cryptocurrency via computer or manufacturing efforts. There have been several business activity associated with both Cryptocurrency categories, including the following.





### **Cryptocurrency is obtained and generated in the following ways:**

Because there is no uniform virtual currency that can be used throughout the digital media, there are a variety of various techniques and approaches that may be used to get or produce virtual currencies. The most well-known of them are presented in this publication.

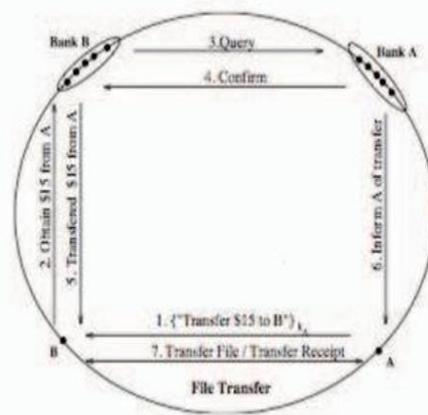
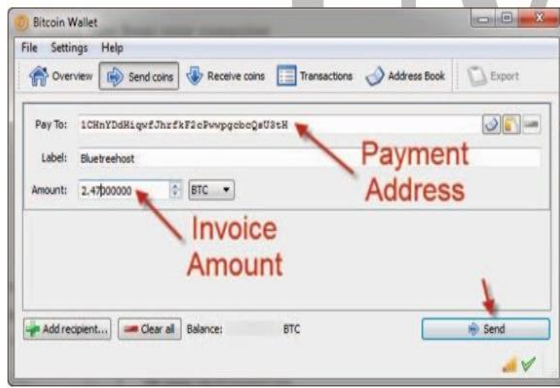
**Method of payment for cryptocurrency:** This approach enables adult users and players who are 18 years of age or older to pay for bitcoin using actual money or its equivalent in the real monetary system, such as pre-paid cards and credit cards, or electronic payment methods such as PayPal, rather than cryptocurrency. Each cryptocurrency platform has its own pricing and conversion rate, which represents the amount of currency that has been acquired and is shown on the site. The virtual money acquired via this approach is held in the purchasers' accounts, which are established by the platform operators inside the sites themselves. Some instances of this system, in which users may exchange actual money for bitcoin, are shown in Figure 1. In most sites, this approach is only available to those who are above the age of 18.

**Method based on an offer:** Many online gamers do not have the capacity or the resources to pay for bitcoin using traditional payment methods such as cash. Users and gamers, whether they are adults or kids, may earn cryptocurrencies by viewing advertising videos, engaging in surveys, earning game levels, and signing up for a free trial subscription using the offer-based technique. Users just need to do the promotional activity in order to earn points and credits, which can then be used to finance their accounts, which are formed inside the game platform itself. Some examples of how to earn cryptocurrency using the offer-based strategy are shown in Fig. 3. When it comes to earning and creating bitcoin, this strategy is often regarded as one of the safest.

**Based on customer and player loyalty:** In this strategy, customers and gamers gain points and credits, which are cryptocurrency equivalents, as long as they continue to do business with the cryptocurrency provider. Several commercial enterprises and video game operators reward their consumers for their loyalty by issuing them with points that can be used for future purchases. These points may also be used for gift certificates, discounts, and other incentives. Customers receive points anytime they buy items from the loyalty point provider's line of products or from other firms that have partnered with them. If you shop at Sainsbury's or a Hombase store, for example, you may earn Nectar points, which are a loyalty point programme in the United Kingdom that allows you to earn points by buying genuine products and commodities. Furthermore, customers have the option of combining this approach with the way of paying for bitcoin purchases. Customers of Saudi Airlines, for example, may pay for additional air miles if the number of air miles they have accumulated is insufficient to get the necessary tickets.

In the case of decentralised cryptocurrency systems such as Bitcoin, this approach is mostly used to measure one's own labour. When it comes to peer-to-peer networks, it is a means for creating virtual money. There will be a fixed, unchangeable, and limited amount of virtual currencies produced in Bitcoin, with the total number of coins generated equaling 21 million units, and there will be no more. When compared to other cryptocurrencies, which are created by one or more central authorities, Bitcoins are created by the network peers themselves. Users of the network install specialised software on their computers in order to solve complicated mathematical riddles, which results in the production of virtual currency. The difficulty of the problems guarantees that the coins are generated in a timely manner and that they are distributed randomly among system participants. The virtual money may be held in a local digital wallet on the users' devices, allowing them to have complete control and management over the currency, as shown in Fig





## A. Spending and trading Cryptocurrency

Spending and trading CC may be separated into two primary components, namely, exchanging cryptocurrency for virtual products inside the virtual environment and exchanging cryptocurrency for actual commodities like money, goods and services. The first group contains certain obstacles and problems but it is not comparable with the second one which has more challenges and concerns that this article will cover in later parts.

Exchanging bitcoin for virtual items: This type of spending and trading CC is followed mostly in online games and social networks. In many virtual world communities, players spend their bitcoin to better their experience of the game by purchasing outfits and accessories for their avatars, weapons, armors and properties. Moreover, players may purchase higher level of the game using their virtual money. Some cryptocurrency platforms enable transferring and payments activities between the system users such as Bitcoins. Users may purchase any virtual things using Bitcoins as a medium money.

Furthermore, many of the Internet technologies are leveraging the notion of sharing resources which implies that they rely on participants' participations. The resources which need to be shared in these sorts of systems include files, storage space, computations' results and bandwidth. These systems are constructed on share- resources based to maintain functioning and regulate stability. Various peer to peer networks offer the notion of incentives to balance contribution by applying some financial ideas such as bitcoin. Karma is an example of cryptocurrency system for peer to peer networks that employs this concept. Every new user who joins to the system will earn a tiny quantity of KARMA to start with. When a user contributes, this amount will be raised, and when a user consumes, this amount will be dropped. Figure 4 depicts the process of KARMA exchange between two parties. Knowledge may also be traded for cryptocurrency, with users being able to place a monetary value on their knowledge and then trading it with other users in return for bitcoin. For example, VEN is a worldwide digital currency that can be traded for knowledge, and it is utilised in a social network called Hub Culture to facilitate the flow of information. Users in Hub Culture may charge for access to particular materials like as articles and films that are regarded to be users' knowledge by using the VEN cryptocurrency.

Additionally, in certain decentralised networks, promises might be regarded to be a kind of cryptocurrency as well. It is developed from two notions: trust in social interactions and the mechanism of the actual monetary system, which are both important principles in virtual currency development. In actuality, real money is transacted in the form of promises, or what is known as the I OWE YOU (IOU) idea. Real currency notes are effectively IOUs from the government, and bank accounts are essentially IOUs from the financial institutions that hold them. IOUs from the government and banks are used as a form of payment between individuals. A combination of the trust ties that exist between users of decentralised networks and the notion of IOU promises may be translated into cryptocurrency and utilised as a payment mechanism in certain circumstances. Ripple is a nice example of a decentralised system that uses IOU promises as a virtual money, as opposed to traditional currencies. A key function of the Ripple system is to discover the most direct route between a payment and a payee in the network, using trustworthy nodes in the process. Because Alex and Mary do not know one other, they do not trust each other when it comes to things like paying for an item purchased from Mary with £10. They are both familiar with and trust a third party named Tom, who will act as a mediator between the two of them. Now, Alex may transfer his IOU to Tom, who in turn can transfer his IOU to Mary, resulting in the payment being fulfilled between Alex and Mary via the intermediary of Tom.

### The process of exchanging bitcoin for real-world goods According to the following classification, there are three key aspects to the relationship between bitcoin and the actual world.

The conversion of cryptocurrency into actual money occurs when the CC is traded for real money. This kind of cryptocurrency spending reflects the maturity of the operator's system, which requires a business link with the real-world money systems in order to operate effectively and efficiently. Controlling financial exchanging requires the establishment of an exchange rate. In the virtual world of Second Life, the Linden Dollar (L\$) is a notable example of this sort of trading since users may change L\$ to a number of actual currencies, such as the United States dollar (see Fig. 6), and vice versa. Aside from that, the virtual currency Bitcoin (XBT) is another example of a virtual currency that may be converted into real money. As seen in Fig. 6, there are several online marketplaces where Bitcoins may be exchanged for real money and vice versa depending on the exchange rate. Approximately

16.78 million Bitcoin units are now in circulation across the globe, with a total market capitalization of more than 142 billion USD as of January 2018. Bitcoins are continually being made until the total number of bitcoins reaches 21 million, after which there will never be any more. These measures will assist in maintaining control over the exchange process and the circulation of this sort of virtual money.

Top XBT Exchange Rates

Add / Change Currency ...

	USD	MYR	EUR	GBP	COP	INR	AUD	CAD	PHP
1 XBT	8484.77	33226.5	6872.63	6042.24	2.424E7	5.531E5	11008.6	11088.7	4.422E5
Inverse:	0.00012	0.00003	0.00015	0.00017	4.13E-8	1.81E-6	0.00009	0.00009	2.26E-6

2018-03-20 06:40 UTC

The trading of cryptocurrency for physical things is referred to as the cryptocurrency to real goods transaction. Individuals may use their virtual money to purchase items such as clothing, sunglasses, perfume, and electrical equipment on certain CC marketplaces. The Mobily firm, a Saudi Arabian mobile network operator, allows its clients to pay for their purchases from partner companies by utilising the points they have accumulated via their mobile phone usage. In some other cryptocurrency platforms, customers receive vouchers in exchange for their collected points, which they can then use to purchase real items and goods from the points provider's stores, such as Tesco ClubCard points, for example. Furthermore, virtual currencies on decentralised networks may be traded for real-world goods and services. The VEN money, for example, may be traded for real-world products and commodities like as clothing, accessories, and precious metals. It may be used to buy automobiles, with users being able to swap 254,451.94 VEN for a Nissan LEAF all-electric vehicle.

Individuals may swap cryptocurrency for services that they need in their everyday lives via the use of cryptocurrency-to-service exchanges. Customers can benefit from the conversion of their accumulated points into free minutes and texts when using the Mobily network, for example. Avios point holders may also use their points to purchase travel services such as travel insurance, which they can redeem for cash.

### DATA COLLECTION & DISCUSSION

The first phase of a pilot research, which was carried out in March 2018, was designed to gather information on various elements of cryptocurrencies. The survey's goal was to determine the prevalence of cryptocurrency usage in order to have a clear picture of the situation from a practical standpoint. It looked at what cryptocurrencies the participants were using, how frequently they were using it, and how they were spending it. Furthermore, the study investigated the participants' level of confidence in dealing with cryptocurrencies at a time when the use of such virtual money is not completely supervised and regulated by the government. In addition, the study looked into the participants' predictions for the future of bitcoin and other cryptocurrencies.

A total of 21 questions were included in the survey questionnaire, and they were supposed to be completed in a short amount of time (5-10 minutes) in order to save participants' time and encourage them to participate. In order to develop the questionnaire, I utilised an online survey website called surveymonkey. The questionnaire was then circulated online via the Facebook network and bitcoin discussion websites. By utilising the questions option on the ResearchGate website, we were able to gather information as well. Some participants were also given the questionnaire through email, which was also included in the survey. I gathered information from 45 internet users from throughout the world, the majority of them were Indian. After filtering them, I discovered that 31 surveys were genuine and could be used for analysis, with the remaining surveys being deleted due to their insufficient information.

The majority of the participants were between the ages of 21 and 30 years old, accounting for 61.29 percent of the total number of participants. Those between the ages of 31 and 40 made up 32.26 percent of the total, with participants beyond 40 making up just 6.45 percent. A little more than half of those who took part were students, accounting for 77.42 percent of those who took part, with the remainder participants being persons in work. The following sections highlight the most important findings and provide suggestions for how the major research problems may be addressed in light of the survey results and our analysis. a. Introduction

#### A. The spread of the usage of virtual currencies.

When it comes to utilising virtual money, the spread differs from one site to another. Loyalty points seem to be the most widely used virtual money kind, according to my research. After that, virtual money in social games comes in second, virtual currency in social networks comes in third, and lastly virtual currency in peer-to-peer networks comes in fourth. According to our pilot research, the following diagram depicts the distribution of virtual currency use:

Loyalty points: According to the results of the poll, around 87 percent of those who took part in it make use of loyalty points. They varied in frequency of participation in loyalty point schemes to the rarity of participation. The reason for this high proportion is

because the majority of loyalty point systems were introduced just a few years ago and have gained in popularity among users and customers since then. Another reason is that consumers benefit from collecting points and credits from their everyday activities, such as shopping, in order to recoup a portion of their expenditure.

Furthermore, loyalty points may be redeemed by customers of all ages, including children, adolescents, adults, and seniors, among others. Figure 7 depicts the subscriptions of members in a number of loyalty programmes.



Blockchain technology in social games: The findings revealed that 70.9 percent of those who took part in the study used virtual money in social games, with the remaining 29.1 percent saying they did not. The questionnaire included questions on a number of social games, including Second Life, FarmVille, CityVille, Farmhouse, and Travian, all of which include virtual cash into their game-playing activities. It is clear from the substantial number of survey participants that use virtual currency in social games that there is a significant volume of virtual currency trade in online games, as well as the significant effect of adopting VC in online games. It is undeniable that the usage of virtual money in social games is expanding at an alarming rate. A number of additional reports and investigations published in the literature provide credence to this expansion. For example, the virtual money Q Coin, which is given by the Tencent gaming corporation, is used by more than 100 Chinese users every day. Furthermore, there are around 7.6 million active users in the World of Warcraft social game who make use of WoW gold. It is estimated that 2.8 million deals are conducted daily in the game's auction house, according to the game's developers.

Cryptocurrency in peer-to-peer networks: Although virtual currency in peer-to-peer networks is at the bottom of the list in terms of dissemination, it may be at the top of the list in terms of other factors such as control and functionality. They were asked if they had heard of this form of virtual money, namely Bitcoin, and whether they had any knowledge of it before taking the poll. It is estimated that around 90.32 percent of them are unaware of Bitcoin or any other peer-to-peer virtual money, with just 9.68 percent knowing about such a currency. Several factors contribute to the poor perception and dissemination rate of decentralised virtual money seen in our pilot research, which may be justified in certain cases. Peer-to-peer venture capital was restricted in scope, with some of the ideas still considered unrealistic when the research was carried out. Furthermore, many peer-to-peer virtual currencies (P2P VC) were not exchanged in a practical sense, and there were not many sellers that accepted such a currency as a form of payment. While recent publications on the virtual currency idea and the growth in merchants that take this sort of money suggest that perception and awareness rates are expected to be greater in the near future, this is not necessarily the case at present moment.

**B. The usage of cryptocurrencies as a payment method**

The second half of this article discusses the many techniques of getting and spending virtual currency, which are further discussed in the third section. Some of these ways were studied in our study in order to have a better understanding of how consumers are trading their virtual money. One of the most interesting findings is that the majority of people who participate in social games earn virtual currency as a result of their game-playing experiences, such as defeating monsters, winning races, and completing levels. In terms of total social gamers who deal with cryptocurrency, they account for 64.3 percent of all players. A total of 21.4 percent of the questioned players who utilise virtual money earn it through selling virtual products inside the game, according to the results of the poll. The majority of social games allow players to sell products that they create while participating in the game, such as farms, buildings, modified autos, and restaurant meals, among other things. A relatively small percentage of surveyed gamers who use virtual currency do so with real money, with 14.3 percent of those who do so purchasing it with real money. It is evident that the vast majority of people are earning CC just by participating in the game. This is due to a variety of factors, including the demographics of the survey participants, the majority of whom are students, and the results of the poll itself.

They do not have the necessary finances to purchase virtual currency at this time. Another possible explanation is that they are not interested in gaining virtual currency quickly because they can earn it by participating in the game for a longer period of time instead.

We questioned the participants who used virtual cash in social games whether they found it entertaining or not, and the majority said it was. Approximately 77 percent of respondents said that it is thrilling to utilise virtual money within games, while 12.9 percent stated that it will have no impact on the game experience since they may not want to improve their gaming experience in any way. Around 9 percent of respondents said that utilising virtual money would have a negative impact on their gaming experience. A

plausible explanation for this point of view is that obtaining virtual cash in social games often demands greater work and a longer period of time spent playing, or even the payment of actual money. As a result, their pleasure of the game will be significantly diminished.

### **C. Self-assurance in the use of virtual money**

According to our findings, the usage of virtual currencies in various systems is expanding on a daily basis, indicating that people are becoming more confident in their ability to utilise them. According to Greenwood, many Europeans from various nations, including Greece, Italy, and Spain, have transferred their actual money into cryptocurrencies, namely Bitcoin, due to concerns about the future of the global economy. This suggests that the confidence in utilising virtual money has grown to the point where it is being used to secure consumers' savings, which is encouraging. Furthermore, the high volume of virtual currency transactions in various social games, such as World of Warcraft gold, Linden Dollars in Second Life, and QQ Coins in the Tencent network, demonstrates the level of confidence and trust that people have in utilising virtual money in general. The Head of the Oversight Department of De Nederlandsche Bank and Endowed Professor of Financial Infrastructure and Systemic Risk at the University of Tilburg, Professor Berndson, has stated that "If Bitcoin stabilises, there is a possibility that people will be able to trust the Bitcoin currency more than they will trust the currencies of central banks."

The results of the poll show that VC is being used with a high degree of confidence, which is consistent with previous findings. When we questioned the participants if using virtual currency was safer than using actual money, they responded affirmatively. The majority of respondents (more than 48 percent) feel that using virtual currency is trustworthy, and they all agreed that using virtual currency is more secure than using actual money. The proportion of participants who gave indifferent replies stood for 38.71 percent of the total number of respondents. This group is likely to be opposed to the use of virtual currencies that are backed by real money. As a result, they aren't concerned about whether virtual currency is more secure than actual money or not. Participants who did not agree with the comparison question accounted for 12.9 percent of the total number of respondents.

### **D. The Prospects for the Use of Virtual Currency**

We can forecast the future of virtual currency based on the present expansion and growth of platforms that supply virtual currency, as well as the massive amount of virtual currency trade that is now taking place. Many social game, social network, and application developers are increasingly incorporating virtual money into their platforms in order to monetise them. Schell, a video game designer, pointed out that the fun portion of making games used to be the major focus, but that today the money factor has taken over as the primary focus. "Now we create games around a psychological moment in which individuals are eager to pay money," he said further. It has been observed that we are becoming more and more cashless society, with the majority of us completing financial transactions via the use of credit cards, debit cards, and internet banking. This sends a signal that we will embrace and integrate ourselves with the usage of virtual currencies sooner or later, regardless of the circumstances. According to the findings of this research, more than 58 percent of those who took part in the poll believed that virtual money of different sorts and forms would eventually become the language of financial transactions. In contrast, 22.58 percent of those who took part in the survey were neutral, and 19.35 percent were opposed to virtual money being the standard method of financial transactions in the future.

With the increase in the use of virtual money, a number of challenges must be considered in order to maintain control over such a financial system. The lack of rigorous and well defined laws and procedures increases the dangers and challenges that the virtual currency business may face in the future. To oversee and manage this new era of digital money, strict rules and policies must be enacted and implemented. While Ed Sperling of Forbes has argued that bitcoin is not real money, this does not rule out the possibility of politicians paying close attention to the issue. This statement emphasises the necessity for special rules and procedures when it comes to dealing with virtual currency and electronic money.

## **CHALLENGES & ISSUES**

Cryptocurrencies, in their current state, are not without their own set of financial challenges and security concerns. As part of my research, I examined numerous studies and cryptocurrency platforms, in addition to participating in several cryptocurrency selling forums, in order to better understand the obstacles and concerns that exist in this virtual phenomena. The following are some of the most serious issues and consequences associated with cryptocurrency:

Threats to information security include: Hackers and unscrupulous individuals may generate as much virtual money as they like if they are able to get into the system and understand the process of virtual currency production. This will allow for the creation of fictitious virtual money or the theft of virtual currency simply by altering the balances of the respective accounts. Selling in-game virtual objects and virtual cash, for example, is prohibited per the rules of the World of Warcraft (WoW) video game. As a result, many people visit World of Warcraft gold selling websites in order to purchase virtual gold in order to pay for virtual products that they need. Many World of Warcraft gold selling websites are untrustworthy and subject to hacking, and many players have expressed their dissatisfaction with the practise of paying real money for nothing or for fictitious virtual cash.

There are fears of cryptocurrency systems collapsing because of the unlimited issuing of virtual currency in a range of virtual communities, which will cause economic issues since the issuing of virtual currency is not dependent on demand and supply. Some service providers, such as Second Life, may be able to issue an infinite number of Linden Dollars and raise the pricing of their virtual objects in order to generate more real-world cash. For its part, it will suffer from inflation and economic concerns, which will eventually lead to the collapse of the virtual currency system.



Incidence on real-world monetary systems: Because certain virtual currency systems are linked to real-world monetary systems, they may have an impact on the demand for and supply of real-world money. For example, allowing customers to buy both virtual and real products and services using virtual currency on various platforms may help to lessen the need for real money in the long run. Users will no longer be reliant on actual money to purchase what they want, but will instead rely on virtual money to do so. Some sites, on the other hand, allow users to trade their virtual money for real cash, which will raise the demand for real world currency as a result. Consequently, the actual monetary systems will be affected by these fluctuations.

Dangers of gold farming: The phrase "gold farming" is widely common in China and other emerging nations. In social games such as World of Warcraft, gold farmers are players who participate in order to collect gold, which serves as the game's virtual currency, and then sell it for real money. It is the gamers who do not have enough time to play and compete for virtual cash that are the primary target market for these products. In reality, the gold farming operation generates a significant amount of financial flow, which is neither supervised or regulated. As a result, fraud and financial hazards will rise in situations when virtual currency is traded for real money in an uncertain environment.

According to the findings of the Chow and Guo research, it is noticed that as the popularity of a virtual community diminishes, the value of the virtual currency associated with that community would depreciate as well. Users who hold 1000 units of virtual cash, for example, may choose from a selection of 100 different things. The user will only be able to purchase 10 products with their 1000 units of virtual currency in the event that the virtual currency's source goes out of business, since fewer goods and services would be available, particularly in gated virtual communities.

Money laundering is one issue that is extremely likely to increase as a result of the usage of virtual currency, particularly with platforms that allow users to trade virtual currency for real money. In a real-world example that happened in Korea in 2008, the authorities detained a group of 14 people for allegedly laundering \$38 million in proceeds from the sale of virtual money. It transferred \$38 million in gold farming profits from Korea to a paper firm in China as payment for goods.

Unknown identity risks: Because most virtual currency platforms, such as social games and social networks, do not require authentication when opening an account, financial activities cannot be tracked effectively. Gamers and users have the ability to establish many accounts with fictitious identities and use them to conduct unlawful activities. When virtual currency are created or cashed out, there is no way to identify the source of the creation or caching. In the event of a money laundering suspect, this results in the impossibility to follow down the transactions. Furthermore, offenders will be able to get payment in virtual money for their crimes if they maintain an anonymous identity.

Some social games, such as Second Life and Warcraft, have reached a point in their financial development where they may support the development of a black market for the purchase and sale of virtual money. With the rising popularity of virtual currency in the internet world, a robust black market for exchanging virtual currency for real money has developed to meet the demand. As a result of studying many social gaming forums, several fraud situations have been highlighted and debated among players. A player who chooses to leave a game may want to sell the virtual cash he or she has amassed by posting an offer in the game's forums to sell the virtual currency. Due to the possibility of malevolent individuals not completing payments or disputing payments after they have been made, accepting funds in this manner is a high-risk endeavour. In this instance, customers will get a refund of their money as well as virtual currency.

## **CONCLUSION**

Cryptocurrency provides a novel, efficient, and appealing payment method model that has the potential to increase income for businesses and operators. Aside from actual money, it also provides alternate methods of payment that allow users to conduct financial transactions such as purchasing, selling, transferring, and exchanging with more ease. They are not supervised and regulated as effectively as they should be, despite the fact that cryptocurrency platforms offer several channels for digital financial transactions and a new kind of money with a variety of procedures and techniques. It was discovered via the analysis of cryptocurrency platforms that there are several difficulties and challenges that put the financial system in jeopardy. The absence of regulatory frameworks is often seen as the most significant source of worry in cryptocurrency systems.

My research of the present cryptocurrency literature, as well as the results of the performed survey, have yielded a nearly accurate image of the scale of cryptocurrency usage in general. Despite the fact that the pilot research was done with a very small sample size, the findings provided me with a preliminary perspective of the usage, the growth, the confidence in the use, and the future expectations associated with cryptocurrencies. I'm beginning to recognise a number of indicators that may offer preliminary answers to the study topics. Cryptocurrency is very likely to become the next currency platform, according to my analysis, due to the large volume of cryptocurrency that is flowing through different systems, the massive expansion and growth of the use and implementation of cryptocurrencies, and the opportunities that cryptocurrency systems provide.

As seen by a number of case studies included in this article in addition to the survey findings, the confidence and trust associated with bitcoin use is substantially higher than it was in previous years.

Users, on the other hand, are not fully aware of the implications of utilising cryptocurrencies. Many cryptocurrency types, in reality, do not yet merit that level of confidence from the public. Several problems, obstacles, and issues are now present on a number of cryptocurrency platforms, and they are fully explained in the sections above of this document. As long as bitcoin is not well-regulated and supervised, consumers should exercise care while dealing with this virtual currency.

The future of the cryptocurrency idea is bright, with more chances to bring about good improvements and advancement in the e-Business and e-Payment sectors revealed as time progresses. The continuous advancement and improvement of technology will ensure that cryptocurrency will continue to advance. Since the time of our research, there have been significant advancements in the improvement and expansion of the cryptocurrency idea. Increasing numbers of merchants are accepting payments in various forms of cryptocurrency, and many consumers are becoming more aware of the possibilities and opportunities that CC may provide them with. Recently, other types of virtual money have also arisen and spread around the globe, including bitcoin. M-Pesa, for example, is a kind of credit card that allows for safe payment and was first presented in Kenya in 2009.

Since 2007, it has been extended into a large number of additional countries in Africa, Asia (including India), and Europe, resulting in a widely popular online payment service.

The topic of cryptocurrency offers several research possibilities, and numerous studies must be conducted in order to provide scientifically sound information in this sector. The relationship between real-world financial regulations and the legal status of a cryptocurrency platform's implementation should be investigated in more depth from a variety of different perspectives.. Furthermore, the degree of adoption and acceptability must be given more thought and be subjected to more in-depth examination with larger samples. When it comes to utilising and exchanging cryptocurrency forms, trust and confidence are crucial variables to consider. These are characteristics that should be examined more. The scope of future study may be broadened to include the development of use-cases for cryptocurrency applications across a variety of industries in India.

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