



“POTENTIAL CHALLENGES & IMPACT OF CRYPTOCURRENCY IN OUR COUNTRY WITH REFERENCE TO BIT COINS”

Name: - Prof. Parui Santu Pradyut

College: - Sanpada College of Commerce & Technology, Sanpada Navi Mumbai.

ABSTRACT:

From a few years onwards cryptocurrencies sudden movement in the financial industry. Cryptocurrency has created unmatched changes in the financial market having both positive and negative contributions. The idea of cryptocurrency is a little hard to accept, but it is easy to use. It is considered reasonable because it is entirely different from our conventional currencies that we people are using since ages.

Due to the rapid development of information and communication technologies, many activities in our daily life have been merged online and they become more flexible and more effective. A huge growth in number of online users has activated virtual word concepts and created a new business phenomenon which is cryptocurrency to facilitate the financial activities such as buying, selling and trading.. This paper investigates the user's expectations of the future of cryptocurrency. It also explores the users' confidence of dealing with cryptocurrency in a time that using such virtual money is not fully controlled and regulated. Besides, the paper is aimed to measure the spread of cryptocurrency use to have a clear picture from the practical view.

There are many things which India needs to learn from this digital era are that some are for their benefit but some of them are to create tension and to worry about. Even though we all know that India is moving fast towards the era of Digital age and that day is not far away that India will also be considered as one of the most developed nation in the world. These virtual digital coins will be more popular in the coming future.

Key Words – Cryptocurrency| Challenges| Uses of Cryptocurrency| Trust of users in Cryptocurrency| Challenges.

INTRODUCTION:

Cryptocurrencies are systems that allow for secure payments online which are denominated in terms of virtual "tokens," which are represented by ledger entries internal to the system. "Crypto" refers to the various encryption algorithms and cryptographic techniques that safeguard these entries, such as elliptical curve encryption, public-private key pairs, and hashing functions.

Money is a medium of exchange in the sense that we all agree to accept it in making transactions. Merchants agree to accept money in exchange for their goods; employees agree to accept money in exchange for their labor. As a unit of accounting, money provides a simple device for identifying and communicating value. A digital coin of the country in which the encryption methods are being observed to determine the creation of whole of paper money and prove the validity of transaction of money, worked freely for a central bank. From the era of barter to commodity money, metal and coins, to gold and silver, continuing by modern monetary systems and checks and ending with the latest global currency developments, such as introduction of cryptocurrencies known as Bitcoin and Ethereum and alike.

The introduction of cryptocurrencies has revolutionized the international payment system in a scale that just few years ago were unimaginable. A cryptocurrency is a digital or virtual currency that uses cryptography for security. In 1983, the American cryptographer David Chaum conceived an anonymous cryptographic electronic money called e-cash. Later, in 1995, he implemented it through Digicash, an early form of cryptographic electronic payments which required user software in order to withdraw notes from a bank and designate specific encrypted keys before it can be sent to a recipient. So, we can say that this definition can be used to define cryptocurrency which is the other assets of currency to be kept by the peoples. It does not also designate some of the things. So, we can say that a cryptocurrency can be said as another way of assets coin which is digital for which group of people have specifically agreed that it has some value. It has all the basic element of currency but there is no real value of cryptocurrency and still people take it as an investment for their needs. We all exchange the things in terms of money exchange like dollar, euro, rupees etc. In older Hcentury the exchange of services is with wheat and rice grains, which added the value of services in terms of grains in barter system and vice versa between buyer and seller. These current techniques are a failure as the person who is the agent can easily fool the consumer with the actual value of the wheat and the services taken by him.

At present we use the currency which is in printed form. So, we all know the actual value of both wheat and services, and now consumer can buy the things easily in exchange of the money he owns. Basically, currency note gave the solution to the problem of exchange system of wheat and services in older times. And now we see easily the future of the digital currency in the coming future. The instruments used as exchange instruments to make the trade transactions as easy as possible according to the market needs have experienced huge development and change. Those instruments used to intermediate the exchange of goods are known as money. Money as something that serves as a medium of exchange, a unit of accounting, and a store of value. Money serves as a store of value in that it allows us to store the rewards of our labor or business in a convenient tool. This allowed the digital currency to be untraceable by the issuing bank, the government, or any third party. A cryptocurrency is difficult to counterfeit because of its security feature. A defining feature of a cryptocurrency is that it is not issued by any central authority. It is completely decentralized. Bitcoin, Ether, Litecoin, and Monero are popular cryptocurrencies.

DEFINATION:

It follows the ideas set out in a whitepaper by the mysterious and pseudonymous Satoshi Nakamoto. The identity of the person or persons who created the technology is still a mystery. Cryptocurrency offers the promise of lower transaction fees than traditional online payment mechanisms and, unlike government-issued currencies, it is operated by a decentralized authority. It a Digital currency in which transactions are verified and records maintained by a decentralized system using Cryptocurrency, rather than buy a centralized authority.

OBJECTIVES OF THE STUDY:

- ✓ To understand the concept of crypto currency, its working, its types and the top player Bitcoin.
- ✓ To analyze the legal status, challenges and opportunities of Crypto currency in India.
- ✓ Crypto currency is a technology that is mainly known for its digital payment network and protocol.
- ✓ To find about the banks use the Crypto currency payment system.
- ✓ To know the market can buy or sell tokens through crypto currency exchanges

RESEARCH METHODOLOGY:-

The data for the study has been gathered through primarily based on secondary sources collected from various websites and books and various research journals, the articles written by eminent authors, etc.

Types of Cryptocurrency:

Cryptocurrency is designed to work as a medium of exchange. The number of cryptocurrencies available over the internet is over 1600 and growing. A new cryptocurrency can be created at any time. By market capitalization, Bitcoin is currently the largest blockchain network, followed by Ripple, Ethereum and Litecoin

Bitcoin (BTC)

One of the most commonly known currencies, Bitcoin is considered an original cryptocurrency. It was created in 2009 as open-source software. Using block chain technology; Bitcoin allows users to make transparent peer-to-peer transactions. All users can view these transactions; however, they are secured through the algorithm within the blockchain. While everyone can see the transaction, only the owner of that Bitcoin can decrypt it with a “private key” that is given to each owner. Unlike a bank, there is no central authority figure in the Bitcoin. Bitcoin users control the sending and receiving of money, which allows for anonymous transactions to take place throughout the world.

Bitcoin– Bitcoin is the cryptocurrency which is worldwide payment system. It is the currency which is decentralized digital currency as the central bank system not worked in this and there is no administrator which is single in it. There is peer to peer networking and all the transfer of digital currency took place without any help of intermediary. The transfers which occurred are properly verified by the network codes which use special kind of cryptography and blockchain record has been made for the ledger of the public distribution. An unknown person or group of people released the Bitcoin and it created the software which is open source in the year 2009. Bitcoin cryptocurrency is used as a process of rewarding which is known as mining. This thing can be used for as a mean of exchange for other currencies, products and services. Over one lakh merchants and vendors accepted bitcoin as payment method from February 2015.

Litecoin (LTC)

Litecoin was launched in October 2011 as an alternative to Bitcoin. Like other cryptocurrencies, Litecoin is a peer-to-peer cryptocurrency and open source-source software project released under the MIT/X11 license. Its creation and transfer is based on an open source cryptographic protocol and it is completely decentralized. Litecoin is different in some ways from Bitcoin. A few differences between these digital currencies are:

- The Litecoin network aims to process a block every 2.5 minutes but Bitcoin takes 10 minutes. this allows Litecoin to have faster transaction confirmation.
- The coin limit for Bitcoin is 21 million and Litecoin is 84 million.

Litecoin – Litecoin is that cryptocurrency which is giving tough competition to the leading development of Bitcoin currently and the main agenda to design Litecoin was to do the transaction for the smaller value in a fast way. Litecoin was found in the year 2011 and the founder of Litecoin was Charles Lee. The main difference between Litecoin and Bitcoin is that for the Bitcoin mining process is very heavy and the fast computing is required on the other hand Litecoin normal desktop computer with slow processing is enough. As comparison to

Bitcoin, today Litecoin is four times bigger that is 84 million.

Experts says that Litecoin are more complicated to create and more expensive to produce because it uses different algorithm called scrypt and FPGA (Field Programable Gate Array)and ASIC (Application Specific Integrated Circuit) devices made for mining

Ethereum (ETH):

Ethereum is a type of cryptocurrency which was proposed in late 2013 by VitalikButerin, a crypto currency researcher and programmer. It was initially released on July 2015. It is an open source platform based on blockchain technology. While tracking ownership of digital currency transactions, Ethereumblockchain also focuses on running the programming code of any decentralized application, allowing it to be used by application developers to pay for transaction fees and services on the Ethereum network.

Ripple (XRP)

Ripple is a real-time gross settlement system, currency exchange and remittance network created by Ripple Labs Incorporation, a US based company. Ripple was released in 2012 that acts as both a cryptocurrency and a digital payment network for financial transactions. It's a global settlement network that is designed to create a fast, secure and low-cost method of transferring money. Ripple allows for any type of currency to be exchanged, from USD and Bitcoin to gold and EUR and connects to banks, unlike other currencies. Ripple also differs from other types of digital currencies because its primary focus is not for person-to-person transactions, rather for moving sums of money on a larger scale.

- **Ripple** – Ripple was established in the year 2012 by a company named OpenCoin with its founder Chris Larsen. It is a cryptocurrency which worked same as payment method like Bitcoin. The mechanism payment method of Ripple is very fast which enables the funds transfer in any currency to another user on the ripple network within seconds.
- **MintChip**– Mintchip is creation of government institution like Royal Canadian Mint unlike most other cryptocurrencies. MintChip is a smartcard which holds the electronic value and transfer it securely from one chip to another. Like Bitcoin,Mintchip does not need personal identification but unlike Bitcoin is backed by the physical currency like Canadian dollar.³

Ethereum Classic

Ethereum Classic is a version of the Ethereumn block chain. It runs smart contracts on a similar decentralized platform. Smart contracts are applications that run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interface. Like Ethereum, it provides value token called “classic ether,” which is used to pay users for products or services.

- **Ethereum-** Ethereum can also be defined as Ether because of its generation on the platform of Ethereum. It is like platform which is public with source opening and has block chain computing. Smart scripting facility is also available in it. It works based on the version which is modified in crypto currency and has transaction-based payment system. It was first set up in the year 2013 by Vitalik Buterin who was a computer programmer and was also the researcher in crypto currency. Ethereum software development was funded by a crowd sale between July and august 2014 also developed a system that goes live on 30 July 2015. Earlier in the first step 11.9 million coins was premined for the crowd sale and its circulation increases with almost 13% of its total circulation of currency. The price of Ethereum grew in the past years of 2014 to 2017.

FUTURE OF CRYPTOCURRENCY IN THE PRESENT WORLD

The market of the cryptocurrency is wider than any other currency in the world. Even though the development of block chain technology is a new concept for all but still all the new coins are competing with each other in order to stay in the market of the cryptocurrency. In future we can say that there will be only three or four coins to be in working mode for the entire payment, trading and other banking infrastructures. It will be excepted to say that every person in future will use the application of blockchain in the modern era.⁹ Central Banks and other banks are of the view that cryptocurrencies are a long run thing and are here to stay for quiet long time. Bitcoins are rapidly in the process of converting and act as a real money that will give a competition to the centralised bodies of government. Bitcoins have a very bright future in the coming era. This currency is of this type that is decentralised, and anyone can use it which is eliminating the rates of exchange in the market of the world makes the future by becoming centralised across the country and the days are not far away when there will be one world and one currency.¹⁰

CONCLUSION

With the revolutionary changes in the cryptocurrency the future of the virtuality cannot be determined in near future. Moreover, virtual currency is illegal in almost all over the world. Some organisations are still using this currency, but majority of companies completely ban them in transaction. If the cryptocurrency in the modern era have become famous, then it is impossible for the countries to completely ignore it. Moreover, cryptocurrencies have the power to become one global currency. There is legality to the use of Bitcoin is a debate, but the acceptance of cryptocurrencies can be happened in the next few years in the digital world.¹¹ Eventually we can say that needs of the customers for the cryptocurrency application it is essential to note that that what are the main success factors for learning the application on cryptocurrency. One obvious thing we see for the use of cryptocurrency is that the people who are the investors in cryptocurrency are having the income which is higher from others and they also possess the other methods of investment. By keeping in mind, the importance of cryptocurrency those persons who are investing their profiles can be decided and which results in the m-learning application of cryptocurrency which is the main planning of the customer caring. One more thing is to be added also that by using the deductive logic the application which we use in mobiles the success factors can be used for the application of cryptocurrency also and highest factor rate can be given special attention for the safeguard, accomplishment, easy use and invention in order to design the application of mobile. However, the most important feature in using the m-learning on cryptocurrency is that it will become the one stop app for the persons who are interested in cryptocurrencies. The only problem comes after researching on this topic is that the concept of blockchain technology and the cryptocurrency is totally new to the people and it is known mainly to the IT field department. The market of cryptocurrencies are growing day by day and all

the spotlight are on the concept of new ecosystem of cryptocurrencies.¹² As we all now cybercriminals are always fast in work, they are smart and can adopt in unbelievable situations as they always wants to know new tricks and techniques, opportunities to make the things easy, changeable and according to their environment. Ransom ware we can say in this is such examples of virus or malware that prevents the users and limit their jurisdiction regarding the use of their resources of system. It forcefully makes the victims to pay the ransom through various modes of online method of payment to access their system or to get their data back which belongs to victim only. Cybercriminal main agenda is to refine their techniques and tools so that their ransomware will progress. So, it became important for the existing users to protect themselves in a best possible way against the threat of ransomware. The most famous ransomware case is of the mobile attacks as it is increasing day by day due to the shifting of the business in the hands of the person and so it become important to identify how, when, where and why the operation of threat came.¹³In the last few years, the word cryptocurrency has increased in a faster way which is visible to the eyes of the general public. On today's world, cryptocurrency is becoming important to the public who knows the value of privacy and the idea for whom there is use of cryptography to authoritative power does not sound like the farfetched. The creation and sharing of currency. Now a day's cryptocurrency is leading by the Bitcoin, Litecoin, Ether etc. are creating the world of finance by storm as more and more people investing and they are buying these currencies. But still there are confusion worldwide regarding the biasness which is also creating impact on the overall effectiveness policy of cryptocurrency. The education about cryptocurrency to the user must be given which is very essential as its nature is in volatile form. In this article we provide a wide outlook towards the cryptocurrency and it is affecting the world as we all know today. The usage of cryptocurrency is all time high and there are many misconceptions about its usage. Some people still ask some questions about it as why use Bitcoin? As different algorithms are used for the currencies and many unconventional ways are used for the trade of the cryptocurrency so many people have to look different characteristics before investment in the Bitcoin. This includes the trading of the daily volume and the capitalization of the market which can be seen overall. Cryptocurrency in the capitalization of the market is in its worth form as its value is higher than the normal currency which are currently circulating in the market. Although the form of this new cryptocurrency is not acceptable by many people and availability of the cryptocurrency is little bit difficult therefore the high market capitalization is not there. Moreover, the trading of the cryptocurrency depends upon the volume which can be considered successful if it is higher. The channels of verification of each cryptocurrency have its own method. The common method which is used for verification in cryptocurrency is known as Proof of Work. To verify the transaction computer, must take time and spend it and power of the computing to solve the problem of mathematics which is difficult. Proof of Stake method on the hand allows the user with the cryptocurrency with the largest share to verify the transactions and it also requires the less power of computing. The cryptocurrency acceptance is of issue now a days unless it is not accepted by the retailers its does not stand much use. Bitcoins is still the most popular form of currency which is digital in nature because of its widespread and is accepted by

many businesses and by the retailers.

Cryptocurrency especially Bitcoin offers a new, effective and attractive model of payment methods that can boost companies and operators revenues. It also provides alternative method of payment, apart from real money, that enables users to make financial activities such as buying, selling, transferring and exchanging easily. Cryptocurrency can bring more positive changes to e-Business and e-Payment sector. However cryptocurrency doesn't get that much of trust yet. Many concerns, challenges and issues are existing in many cryptocurrency platforms. Until cryptocurrency is being well regulated and controlled, users need to take extra precautions of using such virtual money. So the lack of legislations is considered as the main concern in cryptocurrency systems. The silence of the RBI on the regulatory status of Bitcoins may prove to be damaging. An industry has grown around Bitcoins in India- traders, exchanges and merchants who accept payments in Bitcoins. Bitcoins have already gained wide acceptance around the world- hence banning them would not be an option in India. Instead, this industry would need to be regulated. The sooner this is done, the better.

REFERENCES:

- <https://www.investopedia.com/articles/personal-finance/091316/top-3-books-learn-about-blockchain.asp>
- **Mastering Bitcoin by Andreas M. Antonopoulos**
- **The Currency Cold War: Cash and Cryptography, Hash Rates and Hegemony by David Birch**
- **Digital Gold by Nathaniel Popper**
- <https://ieeexplore.ieee.org/document/9432143>

