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CRYPTO CURRENCY AND AUTONOMY OF RBI: A SOCIO- ECONOMIC EVALUATION

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ABSTRACT

Digitalised currency is a 21st century's phenomena which may revolutionise all type of monetary transactions and provide new dimensions to all type of commercial sectors. It may give death blow to the rudiment/conventional system of transaction. Banking sector will be soon going to witness a major revolution by adopting cryptocurrency system. it is grabbing the attention from retail banking clients and institutional investors, fin-techs and venture capital funds. Hence Banks cannot escape from this excellent opportunity. The objective of this paper is to understand cryptocurrency transactions, its types, rules and regulations governing it, also studies why banks are reluctant to adopt crypto currency phenomenon, how crypto currency transaction impact the banking industry, list out the difference between the conventional bank transaction and crypto currency transaction, and studies various crypto scams and suggest measures to overcome them. To sum up crypto currency can be predicted as a future currency which will take place of paper currency at world level however one need to be cautious in using this technology.

Keywords: *Cryptocurrency, Bitcoin, Cryptography, Decentralised, Virtual currency, Digital Currency.*

Introduction

Cryptocurrency provides golden opportunity for global economy. However, banks need to be watchful and protect itself and their consumers from the risks that this new technology would carry.

Due to fast paced growing technology in the world has led us towards digital currency as against conservative paper currency. A crypto currency is a digital or virtual currency that is connected by cryptography [1]. due to which it is not possible to counterfeit or double spend.it is a medium of exchange with the aid of computer network without any central body governing it.

Thus, the most significant highlight of this digital currency is that it is not issued by central body. it is free from governmental control and interference as it works on decentralized networks based on block chain technology- which is a distributed ledger enforced by a diverse network of computers.

Another noteworthy aspect of Cryptocurrency is encrypted peer to peer network that they provide a secure, easy and quick transfer of funds [2]**.** Also, it offers direct transfers without the need of intermediaries which makes the transfers inexpensive as well. A crypto currency does not face any single point of failure.

However, the major drawbacks of cryptocurrencies are the price fluctuations, frauds and scams, high energy consumption in mining activities. As opposed to traditional currency, digital currency does not have any physical form.

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Crypto currencies are digital or virtual currencies secured by cryptographic networks. Cryptocurrency offers secure online transfer of funds and eliminates the use of third-party intermediaries. Crypto currencies can be mined or purchased from cryptocurrency exchanges.

Many ecommerce sites still do not accept payments through cryptocurrencies, even the most popular cryptocurrency viz Bitcoin is not considered for transactions by many retailers.

However, the popularity of digital currency is touching great heights and gradually many countries came forward to adopt this technology for trading.

Fig. 1

Over the last few years, cryptocurrency prices have shown a fluctuating trend where its prices have escalated and dropped.

The first decentralized digital currency was Bitcoin, which first introduced as an open-source software in 2009. Soon after the introduction, many other cryptocurrencies have been formed.

Types of Cryptocurrency

At present numerous cryptocurrencies are circulating in the market. Each cryptocurrency has different functions and features. For eg. Ripple's XRP is used by banks to facilitate transfers between different areas.

Bitcoin is the most widely traded cryptocurrency in the world. After the successful launch of bitcoin many other currencies have also introduced in the market such as Solana, Litecoin, Ethereum, Cardano etc.

- **Bitcoin (BTC)** is the number one cryptocurrency in the market on the basis of market cap. it has a Market cap of $583.34 billion**.** [3]

Satoshi Nakamoto introduced Bitcoin (BTC) in 2009 as the original cryptocurrency. In the beginning he carried 50 bitcoins in the market. However, during that time it was not taken seriously by the technology experts around the world. [4]**.** As the use of bitcoin increased, it had seen the positive impact on its price Thus according to bohme 2015 the foundation of bitcoin value is dependent on scarcity. [5]

According to Forbes advisor report, BTC functions on a blockchain, or a ledger logging transactions distributed across a network of thousands of computers. Bitcoin is kept secure and safe from fraudsters.

Bitcoin’s price has escalated dramatically due to its popularity in every sector. In May 2016, one could buy one Bitcoin for around $500. However, on May 12, 2022, one Bitcoin’s price was increased to $29,000. Hence it depicts an increment of more than 5,700%.[3]**.**

- **Ethereum (ETH)** has Market cap of $227.64 billion. It is the second best cryptocurrency on the basis of market capitalisation after bitcoin and also a blockchain based software platform with a functionality of smart contracts. It is introduced in 2009 by the programmer Vitalik Buterin. Ethereum is preferred by program developers due to its functions for eg. so-called smart contracts that automatically activated when conditions are met and non-fungible tokens.

Ethereum has also witnessed enormous heights. From April 2016 to the beginning of May 2022, its price went from about $11 to over $2,000, increasing almost 18,000%. [3]

- **Tether (USDT)** has a Market cap of $72.50 billion and is the third largest currency circulated in the market on the basis of its market cap. Tether is considered to be a stable coin, which means it's backed by fiat currencies like U.S. dollars and the Euro and keeps a value equal to one of those units. Tether's value is more consistent as compared to other cryptocurrencies in circulation therefore, preferred by those investors who want to avoid extreme price fluctuations. [3]
- **U.S. Dollar Coin (USDC)** has a Market cap of $53.68 billion. USD Coin (USDC) is also a stable coin currency like Tether, which implies that it's also backed by U.S. dollars and it target for a 1 USD to 1 USDC ratio. USDC is driven by Ethereum, and one can transact USD Coin for worldwide transactions. [3]
- **Binance Coin (BNB)** has a Market cap which is around 51.17 billion. Binance Coin is a type of cryptocurrency issued by Binance exchange, which is one of the largest crypto exchanges in the world. it can be used for trading, payment processing or even booking travel arrangements. It can also be traded or exchanged with other types of cryptocurrency, viz Ethereum or Bitcoin. Price of BNB's in 2017 was just $0.10. But in the beginning of May 2022, its price had increased to around $279, which depict a profit of around 280,000%.[3]

Following are the top 10 cryptocurrencies, their value against USD & their market cap for reference.

Sr. No	Crypto Currency	Symbol	Price (USD) / Coin	Market Cap (USD)
1	BITCOIN	BTC	$ 30642.67	$ 583.34 Billion
2	ETHEREUM	ETH	$ 1910.61.00	$ 231.10Billion
3	TETHER	USDT	$ 0.9994	$ 72.49 Billion
4	USD COIN	USDC	$ 1.99	$ 53.69 Billion
5	BNB	BNB	$ 313.46	$ 51.17 Billion
6	RIPPLE	XRP	$ 0.3994	$ 19.33 Billion
7	CARDANO	ADA	$ 0.5343	$ 18.08 Billion
8	BINANCE USD	BUSD	$1	$17.95 Billlion
9	SOLANA	SOL	$ 45.82	$ 15.56 Billion
10	DOGECOIN	DOGE	$ 0.08522	$ 11.28 Billion

Source: https://coinmarketcap.com/ as on 30 may 2022 **[6].**

How Cryptocurrencies may Impact the Banking Industry

Cryptocurrency popularity has been rising rapidly throughout the globe yet conservative banks are reluctant to adopt this technology, these banks are skeptical about this currency and believe that the risk associated with cryptocurrency are more as compared to its benefits. However regulatory agencies such as the Office of the Comptroller of the Currency (OCC) are making efforts to change this negative assumption of banks to a positive attitude towards the digital currencies as it can lead an economy to a new era of creativity, freshness and competence.

The salient difference between cryptocurrency transaction and bank transaction is that banks are controlled and supervised by government and RBI. While the cryptocurrency transactions are decentralized and not controlled by any government instead, they are controlled by certain rules and regulations. Thus, cryptocurrency transactions rarely face any single point failure. This is one of the reasons why many people prefer it compared to conventional banking transactions. Cryptocurrency transactions further advantageous because of absence of intermediaries and it is purely peer to peer transaction. Handicaps of banking transactions are clearly witnessed during demonetization period in India. Cryptocurrencies transactions are connected through the transaction ID of electronic media. Cryptocurrency payments are irreversible which means if someone loose his money he cannot get it back whereas in banking transactions one may obtain his money by following requisite rules and regulations.

Why Banks are Cautious in Adopting Cryptocurrencies

Banks are reluctant to adopt cryptocurrency, believing that transactions under this involves huge risks and are complicated, lengthy and requires due diligence. However, cryptocurrencies can bring many benefits to the economy if used wisely.

The Cryptocurrency is free from conservative methods of government control and interference in transactions.

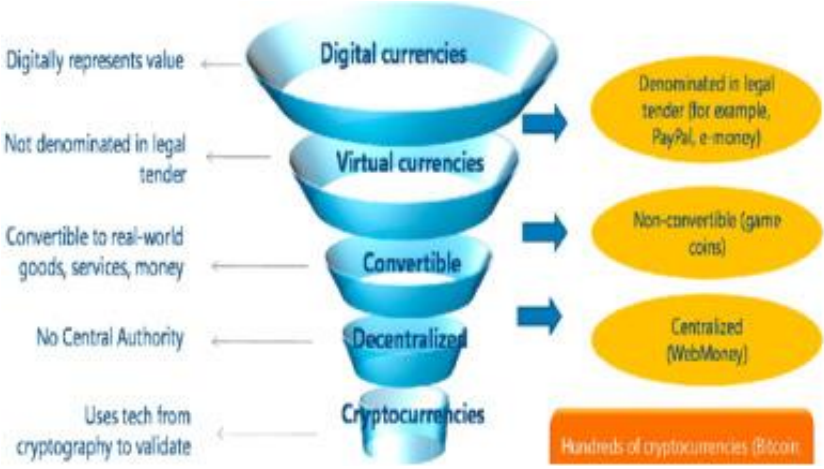

Fig. 2: Taxonomy of virtual currencies. [7].

Source: IMF Staff

- **Decentralized Nature**

Banks are centralised thus controlled and supervised by government. however, Cryptocurrency are decentralized and not supervised by any government. For payment of transaction there is no need of intermediaries. on the other hand, banks charge certain fees for transferring funds from one place to another. Its not the case with crypto transactions.

- **KYC and AML Concerns**

Cryptocurrencies offer peer-to-peer transaction, without the need of a middlemen, providing the person access to directly transfer funds to other party. There is no need to pay any transaction cost and it is a quick and secure process. All transactions are simply linked to the transaction ID on the blockchain.

Banks are majorly concerned about the lack of regulations on anti-money laundering (AML) and know your customer (KYC) for the digital currency transactions. Banks assumes that cryptocurrency transactions cannot be tracked for AML and KYC requirements, which can result in frauds, scams and illegal activity. Banks are majorly concerned about the verification of cryptocurrencies. As KYC verification is the major factor through which banks develops trustworthiness. In case of banks when a new customer comes in, he needs to undergo KYC verification.

On the contrary, KYC is only a check on the customer and not on the transaction, therefore it might not identify all cases of fraud and money laundering. For banks, It can be costly and time consuming to trace the transaction from the beginning. Thus, frauds and money laundering cannot be identified in such cases. However, the blockchain technology allows know your technology (KYT), through which all transactions can be tracked from its original source. The digital ledger automatically stores the overall history of transactions where it is almost impossible to counterfeit and double spend. To conclude KYC and KYT cannot work alone and has to work together to track the customer and transaction.

- **Volatility**

The price of cryptocurrencies are not consistent and shows a fluctuating trend over a very short period of time due to its market size, liquidity, and the number of market participants. Banks consider this as a threat because in past the price had shown an inconsistent trend in cryptocurrencies thus, banks thinks that cryptocurrency may not be a stable investment platform over time.

How Banking Sector can Support in Crypto Currency

Cryptocurrency can bring great opportunities for our global economic system. However, it should be studied well before its adoption in India because taking risk is not the major problem but missing a good opportunity is the real threat. Hence if digital currency is good for our economic system, we should embrace it with open arms and show a welcoming attitude towards it. However, before its adoption proper study and examination Is necessary to see weather, it is ideal for our Indian economy or not. There are some steps through which banks can support in cryptocurrency transactions.

Firstly, Banks can provide custodial services to customers by safely and securely keeping the cryptocurrencies on behalf of their customers or can provide customers a key to operate crypto on a personal digital wallet for its customers.

Secondly, Banks can help in providing expert assistance to new inexperienced investors in adopting cryptocurrencies. Involvement of financial institutions would develop the trust in new investors and boost their confidence in the currency. Investors might face issues in opening their digital wallet to keep their cryptocurrency, here banks can play an effective role in guiding the inexperienced investors. Through the banks involvement investors find it more secure and safe. Consequently, criminal activities, hacking and frauds will also be reduced.

Furthermore, Banks can also avail the public blockchains technology to speed up their payments. Blockchain technology is a quick and affordable substitute to clearing houses when processing transactions.

Advantages and Disadvantages of Crypto Currency

Crypto currencies were introduced with the aim to revolutionize financial infrastructure. However, there are some merits and demerits associated with it. Cryptocurrency transactions are peer to peer transactions which does not require any intermediaries unlike the traditional banking system which involve middlemen to complete a transaction. Hence cryptocurrency has made the transactions more independent and made the trading simpler and quick. Also, the trading has become cheap as there would be low transaction cost involve.

Absence of intermediaries is the major drawback of cryptocurrencies. Furthermore, there are lack of rules and regulations governing the transactions under cryptocurrency is also a major concern for the digital currency market. For this reason, it would be difficult for the people to rely on this virtual currency. Lack of rules and regulations would invite many frauds and scams.

Legal Status of Crypto Currency in India

As the digital currencies/cryptocurrency transactions are not governed by any authorised agencies and as the governments are yet not vigilant in making laws and regulations in this direction the investors are always are at the risk of loss and danger as they are exposed to variety of scams and risks which are mentioned above.

Crypto transactions may not only disastrous to retail investors, they may adversely affect the vitality of the economy of the developing countries and the misuse of the crypto currency transactions technology may lead to encourage the destructive designs of vandalism. Concisely speaking Cryptocurrency trading or transactions which are maintained merely in publicly accessible ledgers and not at all controlled by centralised banks or licenced agencies. It will always be detrimental to the investors. This system requires the highly and professionally trained society.

According to the economic times report, Presently, cryptocurrency in India is unregulated. ICAI, an apex body of Chartered Accountant's in India will soon make research paper on cryptocurrencies that will include various features and taxation policy suggestions. And then submit the report to the government.

The government of India announced Union Budget for 2022-23 and has given some clarity to investors regarding the levy of income tax on crypto assets. From April 1 2022, Government has imposed a 30 per cent tax rate on all income received from crypto transactions plus cess and surcharges will be imposed on such transactions in the same manner as it treats winnings from horse races or other speculative transactions.

TDS of 1 percent will be levied on payments towards virtual currencies b Rs 10,000 in a year and taxation of such gifts in the hands of the recipient. Losses from crypto trading cannot be setoff from income of other sources and will be carried to next year**.[8]**

Crypto Currency Scams and the Possible Measures to Overcome them

Although cryptocurrency transaction is the most convenient media of transaction of money especially for the electronic suave people but in case of India where still today a substantial majority of people are ignorant about the intricated technicalities of the electronic system it it very difficult for them to take the risk of adopting this system. It is significant to note here that almost a considerate majority of the people have not taken ATMS or adopted online banking. A recent report of The Times of India (2022, March 1) released the rise of crypto scams and suggested some measures to trap them.

- Many scam websites are made to resemble valid companies therefore, one must not proceed if there is not any small icon near the URL and https in the site address.
- Some emails look like a genuine crypto platform which might prompt you to click on a link with promotions on new coin on links which may lead to "rug pull" or "pump dump" where the crypto developers abandon a project and run away with investor's money.
- Just like fake websites, fraudulent apps can be downloaded by mistake this is a greater risk for android users, to avoid this spot the difference between spelling errors, strange coloring or an incorrect logo.[9]
- Many imposters target people through social networking sites and dating apps. They usually dole out investment tips and flee once you handed over your money. Therefore, one must not trust anyone with crypto investment tips and cross check with experts. It is also suggested that the one must avoid clicking on a messages that would lead you to the fraud sites.

Conclusion

This paper presents the challenges and opportunities of cryptocurrency transactions and compares it with bank transactions to understand the better side of cryptocurrency transactions and also explains the current situation of cryptocurrency in India. It is need of hour to adopt crypto currency transactions by banks in order to cope up with fastest growing competition in the world. One must be vigilant and well informed before its implementation because crypto transactions are surrounded with many crimes and its volatile nature is one of the major reasons for the reluctance of people. Thus, this platform requires a great deal of improvement before its adoption.

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