DIGITAL CURRENCYCHALLENGES &IMPACTS IN INDIA

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ABSTRACT:
Due to fast and rapid development of data and communication technologies, several activities in our lifestyle are incorporated on-line and they become a lot of versatile and more practical. A huge growth in range of on-line users has activated virtual word ideas and created a new business developmentphenomenon that is cryptocurrency to facilitate the monetary activities like buying, selling and trading. Cryptocurrency represent valuable and intangible objects that are used electronically in numerous applications and networks like on-line social networks, on-line social games, virtual worlds and peer to see networks. The use of virtual currency has become widespread in many alternative systems in recent years. *The paper presents the cryptocurrency market, business, process of obtaining the crypto currency, exchanging Cryptocurrency for virtual and real items and challenges and issues of the cryptocurrency.*

Keywords: Cryptocurrency, Cryptocurrency market, Challenges and issues of cryptocurrency

I. INTRODUCTION

There is no doubt that the age of knowledge and communication technologies has created several golden opportunities in many aspects. One of the fields that enjoy these technologies and on-line connections is that the monetary and business. A growing range of on-line users has activated virtual world ideas and created a brand new business phenomenon. Thus, new sorts of mercantilism, transactions and currencies are arising. One of the outstanding monetary forms that are emerged within the past few years is Cryptocurrency. Cryptocurrency (CC) may be outlined as any medium of exchange, aside from universe cash, that can be used in many financial transactions whether they are virtual or real transactions. Cryptocurrencies represent valuable and intangible objects which may be used electronically or nearly in several applications and networks like on-line social networks, on-line social games, virtual worlds and peer to peer networks.

This paper explores several aspects of Cryptocurrency platforms trying to answer the most queries of this analysis that area unit "Will Cryptocurrency be succeeding currency platform? Are virtual currency platforms safe enough to be used?" It investigates completely different Cryptocurrency platforms so as to supply deep insight concerning mechanisms of implementing, dominant, issuing, spending and exchanging Cryptocurrencies which provides a useful and an organized CC classification. The paper conjointly analyses current Cryptocurrency systems and platforms so as to extract considerations, problems, problems and challenges that area unit exist. It analyses the correlation between the important world laws and therefore the use of CC planning to define the sturdy impacts of Cryptocurrency construct on a number of universe aspects such as real financial systems, business trade, laws breaking rates and crimepayment methods. The outcomes draw the eye of all parties UN agency participate in and full of Cryptocurrency platforms to the importance of dominant Cryptocurrency use. Those parties are governments, operators and users. The outcomes conjointly alert lawmakers and virtual currency suppliers to unleash and found out strict rules, policies and legislations to manage virtual currency systems. Additionally, this paper provides a scientific content that make opportunities for any analysis.

II. THE CRYPTOCURRENCY MARKET

A. The Global Landscape

As of March eighteen 2018 there are 1564 Cryptocurrencies offered in regarding 9422 exchanges. The market capitalization of all the cryptocurrencies is $275,797,435,861 i.e. $275 Billions. & 24-hour volume was $ 18,207,953,654 i.e.$18 Billions.
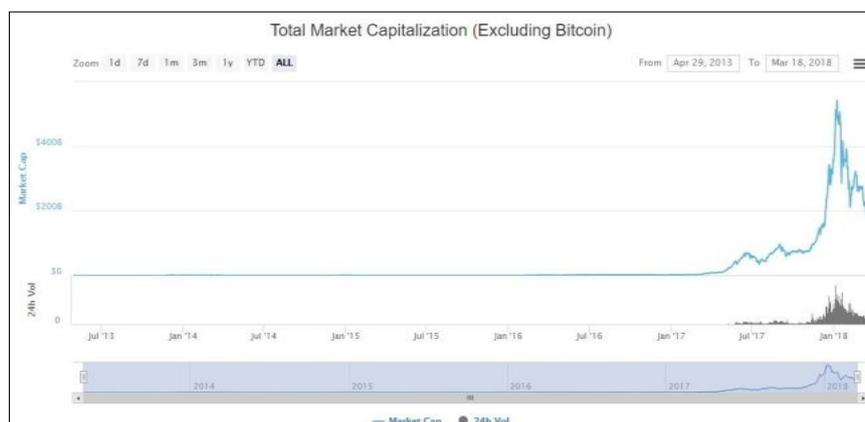

Fig. 1: Total Market Cap of Cryptocurrencies (with Bitcoins)

The Bitcoin has most dominance within the cryptocurrency market with around forty fifth of market share of $142.2 Billions (Rs 9.25 Trillion). Its market price is $ 8254.8 i.e Rs 5,35,767. Other cryptocurrencies excluding bitcoins ar referred jointly as altcoins, it includes alternative 1550 currencies that are listed. Some of them arementioned sideways in the table:

| Name	Price	Market Cap
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	$78.16M
Neo	$ 58.98	$260.1M

B. Its Rise in India:

India with a population that's over one billion sturdy has been on one thing of associate economic renaissance within the previous couple of years. Such has been the extent of the country's growth that the UN agency has known as it the fastest-growing rising economy. More than forty % of the country's population has access to telecoms and net services. A country steeped in mystery, history, and culture, it is also not one to fall behind when it comes to technological advancement. Bitcoin and alternative cryptocurrencies are in operation at intervals the country for variety of years currently. This article appearance at the state of the Indian cryptocurrency market.

As early as 2012, small scale Bitcoin transactions were already taking place within the country. These were still early days within the development of Bitcoin once solely crypto hobbyists were inquisitive about Bitcoin. By 2013, Bitcoin was setting out to gain tier of recognition that was spreading across several countries. That year, a couple of businesses began to just accept Bitcoin payment. A vintage era shop known as Kolonial within the Worli space of urban center became the primary eating place service in Asian nation to just accept Bitcoin payments.In a short space of time, cryptocurrency exchanges began to spring up within the country. Pioneers like BtcxIndia, Unocoin, and Coinsecure began giving cryptocurrency exchange and commerce services in Asian nation. Over time, others like Zebpay, Koinex, and Bitcoin-India were added to the list. With the proliferation of crypto trading and exchange platforms, the crypto market in India has grown from its modest level in 2013 to what it is today. Apart from these on-line exchanges, there are also a number of over-the-counter (OTC) crypto shops in the country. Add to this, numerous Bitcoin ATMs in major Indian cities and you have the makings of a crypto economic hub.

On Gregorian calendar month eight, 2016, Prime Minister Narendra Modi announced the commencement of a demonetization policy. The move by the Govt. to devaluate some eighty six % of the country's currency sent shockwaves all across the landmass of Asian nation. People with massive money holdings needed a brand new means that of holding such wealth while not acquisition vital tax burdens and varied government scrutiny. It became common observe for a few to shop for massive orders of Bitcoin or alternative cryptocurrencies and so sell them at a later date. This meant that they were effectively circumventing what would are appreciable taxes if that they had tried to flow into their wealth through the banking industry.

III. THE CRYPTOCURRENCY BUSINESS

Rosenzweig, a CEO of IMVU game company, compared virtual currencies to airline miles, which are considered as a type of virtual currency, to make it more understandable and he defined them as "symbolic currencies [that] you'll accumulate and so switch them into one thing you care about". Virtual currencies facilitate mercantilism activities and finishing money transactions for users. At a similar time, they made the way of earn, spend, exchange and accumulate money easier and more efficient. They are wont to purchase virtual product within a similar surroundings or to exchange currencies among totally different platforms. Furthermore, they are used to buy digital and physical goods. Therefore, virtual currency offers an excellent opportunities for firms and operators to legitimatise their applications and so increase their revenues.
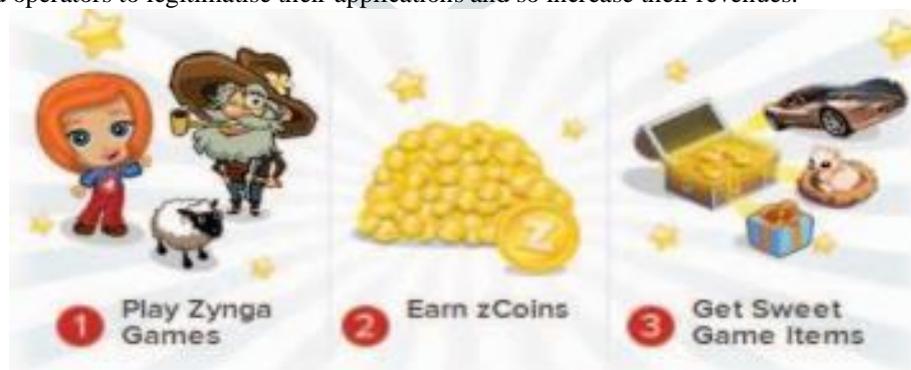
There are many varieties of Cryptocurrency that ar enforced in several platforms as well as Cryptocurrency in social networks, Cryptocurrency in social games, loyalty points and Cryptocurrency in peer to peer networks. These platforms are classified into 2 main classes, centralized cryptocurrency platforms and decentralized cryptocurrency platforms. The centralized cryptocurrency is outlined as a Cryptocurrency system that features a centralized repository that is analogous to the financial organization. The administrator of that repository has full control of transferring the Cryptocurrency value between persons or from location to another. Whereas the decentralized cryptocurrency is outlined because the Cryptocurrency system that has no centralized repository and has no single administrator. De- centralized Cryptocurrency is get by computing or producing effort. Many business activities are concerned in each Cryptocurrency classes as well as the following:

Fig. 2: samples of shopping for CC with real money;

A. Obtaining and Generating Cryptocurrency

Since there's no universal virtual currency across the digital medium, there are several different ways and methods to obtain or generate the virtual currencies. This paper presents the most prominent ones.

Pay for Cryptocurrency Method:

This method permits adult users and gamers United Nations agency aged eighteen and over to acquire forobtaingetprocureget hold ofcryptocurrency victimization real money or its equivalent within the real financial system like pre-paid cards and credit cards or e- payment systems like PayPal. Each cryptocurrency platform has its own rating and exchanging rate that indicates the number of purchased currency. The purchased virtual currency during this technique is keep in buyers' accounts that are created at intervals the platforms by the operators. Fig.1 shows some samples of this technique wherever users will pay real cash for cryptocurrency. This technique is restricted to over eighteen years recent in most of platforms.

Offer based method:

Many online gamers do not have the ability or the means to pay with cash option for cryptocurrency. Offer based mostly technique permits users and gamers whether they are adults or minors to earn cryptocurrency by observation advertising videos, taking part during a surveys, winning games levels and language up for a trial subscription. Users simply have to be compelled to complete the promotional activity to achieve the points and credits so as to fund their accounts that ar created at intervals the sport platform. Fig. 3 shows some samples of a way to earn cryptocurrencies by supply based mostly technique. This technique is taken into account joined of the safest ways that of earning and generating Cryptocurrency.

Loyalty based Method:

During this method, customers and gamers earn points and credits, which are forms of cryptocurrency, as long as they stay with the cryptocurrency provider. Commercial firms and games operators reward customers for his or her loyalty by giving them points that are redeemable towards future purchases. These points are exchangeable with vouchers, discounts and gifts. Customers earn purposes whenever they create purchases from the loyalty point provider's merchandise or from different collaborating firms. For example, Nectar points, a loyalty point scheme in the UK, can be earned by purchasing real goods and items from several partner companies such as Sainsbury's and Hombase stores. Furthermore, users can combine between this method and the method of paying for cryptocurrency. For example, Saudi Airlines' customers will pay for further air miles if their collected air miles aren't enough to urge the specified tickets.

Self-effort based Method:

This method is especially used for decentralized cryptocurrency systems like Bitcoin. It is a mechanism of generating virtual cash in peer to look networks. There will be mounted, immutable and finitely number of generated virtual coins in Bitcoin which will equal to 21 million units and there will be no more. Unlike different cryptocurrency wherever it's generated by one or additional central authority, Bitcoins are generated by the network peers. The network users run specialized computer code on their computers to unravelcomplex mathematically puzzles and thus producing virtual coins. The complexness of the puzzles ensures the flow of generating the coins that is then distributed every which way to the system users. The virtual coins is keep in native digital notecase within the users devices therefore the coins are absolutely controlled and managed by them.

B. Spending and exchanging Cryptocurrency

Spending and exchanging CC can be divided into two main sections, namely, exchanging cryptocurrency for virtual items within the virtual environment and exchanging cryptocurrency for real items including money, goods and services. The first class has some challenges and issues however it's not comparable the second that has additional challenges and problems that this paper can address in further sections

Exchanging Cryptocurrency for virtual items:

This class of paying and exchanging CC is followed in the main in on-line games and social networks. In many virtual world communities, gamers spend their cryptocurrency to improve their experience of the game by buying clothes and accessories for their avatars, weapons, armors and properties. Moreover, gamers should purchase advanced level of the sport mistreatment their virtual cash. Some cryptocurrency platforms offer transferring and payments activities between the system users like Bitcoins. Users should purchase any virtual things mistreatment Bitcoins as a medium currency.

Furthermore, many of the Internet technologies are using the concept of sharing resources which mean that they depend on participants' participations. The resources which require to be shared in these forms of systems embody files, storage capacity, computations' results and bandwidth. These systems area unit engineered on share- resources primarily based to take care of practicality and management stability. Some peer to look networks introduce the thought of incentives to balance contribution by utilizing some monetary ideas like cryptocurrency. Karma is associate degree example of cryptocurrency system for peer to look networks that uses this mechanism. Every new user that joins to the system can gain alittle quantity of destiny to start out with. This amount will be increased when the user contributes and it will be decreased when the user consumes. The exchanging method of destiny is shown in Fig.4. Knowledge is additionally may be changed with cryptocurrency wherever users area unit ready to worth their information and that they will exchange it with different users for cryptocurrency. For example, VEN may be a world digital currency that may be changed with information and it's employed in a social network referred to as Hub Culture.

Users in Hub Culture will use VEN to charge accessing to individual contents like articles and videos that area unit thought-about as users' information.

Exchanging Cryptocurrency for real items:

The affiliation between the cryptocurrency and therefore the globe can be divided into 3 main components as follows: Cryptocurrency to real cash wherever the CC may be changed for real money. This kind of paying cryptocurrency indicates the maturity of the operator's system that has to have business reference to the important cash systems. Exchanging rate should be established to regulate the monetary exchanging. A good example of this sort of exchanging is Linden greenback (L$) in Second Life virtual world wherever users will convert L$ to sort of real currencies like US$, see Fig. 6. Furthermore, Bitcoin (XBT) is another example of the virtual currency that may be changed for real money. There area unit several on-line markets that may exchange Bitcoins for real cash associate degreed the other way around supported an exchanging rate, see Fig. 6. As of Gregorian calendar month 2018, over 16.78 million Bitcoin units are circulated around the world which worth more than 142 billion USD. Additionally, Bitcoins area unit still created till they reached twenty one million units and there'll ne'er be over that quantity. This will help to control the exchange process and the circulation of this type of virtual currency.
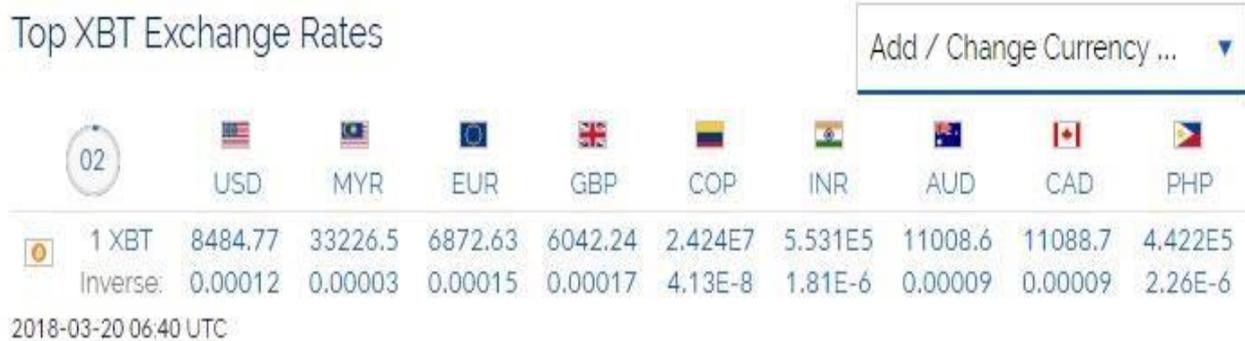

Fig. 4: XE.com exchanging rate for Bitcoins as on the 20th March 2018.

Cryptocurrency to real product wherever the VC may be changed for tangible product. Some CC platforms modify people to shop for garments, sunglasses, perfumes and electrical appliances mistreatment their virtual currency. Mobily company, a mobile network supplier in Asian nation, enables its customers to pay fortheir purchases from partner firms mistreatment their collected points. In some other cryptocurrency platforms, customers receive vouchers versus their collected points to use them for buying real items and goods from the points provider's stores such as Tesco ClubCard points. Moreover, virtual currencies in localized platforms also can be changed for real things. For example, VEN currency may be changed for real product and commodities like garments, accessories and Precious metals. It may be accustomed purchase cars wherever users will exchange 254,451.94 VEN with NISSAN all-electric car called LEAF.

Cryptocurrency to services wherever people will exchange CC with services that they have in their reality. For example, customers can benefit from converting their collected points to free minutes and texts with Mobily network. Furthermore, Avios point's collectors will convert their points to travel services like travel insurance.

V. CHALLENGES & ISSUES

The form of cryptocurrencies isn't free from some monetary issues and security issues. I analyzed many studies and cryptocurrency platforms and additionally ascertained some cryptocurrency marketing forums so as to explore challenges and problems that ar exist in such virtual development. The main issues and impacts of cryptocurrency will include:

Security threats: Hackers and malicious users will produce the maximum amount as they require from virtual currency if they break the system and apprehend the strategy of virtual currency creations. This will result in the flexibility to form faux virtual currency or steal virtual currency by simply dynamic the accounts balances. For example, marketing in-game virtual things and virtual currency is against World of Warcraft (WoW) game policies. Therefore, several users log into WoW gold marketing websites to shop for virtual gold so as to buy virtual things that they have.

Collapse issues in Cryptocurrency Systems: Unlimited issuance of virtual currency within the selection virtual communities can result in economic issues since its issuance isn't supported the demand and provide. It is doable for a few suppliers like Second Life to issue unlimited Linden greenbacks and increase their virtual things costs so as to realize additional real revenues. On the opposite hand, it'll suffer from inflation and economic problems resulting in collapse within the virtual currency system.

- **Impact on real financial systems:** Since some virtual currency systems ar connected with globe financial systems, they will have an effect on the strain and provide facilities of globe cash. For example, facultative users to get virtual and real product and services with virtual currency in some platforms might cut back the strain on real cash. Users can not rely upon real cash to shop for what they require and that they can use virtual cash instead. On the opposite hand, some platforms alter users to exchange their virtual currency with real currency and this may increase the strain on globe currency. This fluctuation can have an effect on on the important financial systems.
- **Gold farming risks:** Gold farming term is extremely in style in China and developing countries. Gold farmers are players WHO play in social games like World of Warcraft so as to realize gold, that is virtual currency of the sport, so sell it for real money. The targeted patrons are the players WHO don't have enough time to play and vie for gaining virtual currency. In fact, large income is generated from gold farming method and it's not controlled and controlled. This will increase fraud and monetary risks wherever virtual currency is changed with real cash in unreliable setting.
- **Fluctuation in virtual currency value:** According to Chow and Guo study, it is observed that when the popularity of a virtual community drops, the value of its virtual currency will be devalued. For example, users WHO own one thousand units of virtual currency can purchase from kind of one hundred things. In case the provider of that virtual currency drops, users can only buy from 10 items with their 1000 units since dropping will be reflected in fewer goods and services especially in closed virtual communities.

- **Money washing:** hiding is one risk that's terribly seemingly to rise with the utilization of VC particularly with platforms that alter users to exchange virtual currency with real cash. In practical case occurred in Korea in 2008, the police arrested a group of 14 persons for laundering $38 million obtained from selling virtual currency. The group converted the amount of $38 million, which is generated by gold farming, from Korea to a paper company in China as payments for purchases.

- **Unknown identity risks:** Since making Associate in Nursing account in most of virtual currency platforms like social games and social networks isn't documented, financial transactions cannot be monitored very well. Gamers and users will produce quite one account with unknown identities and use them for criminal transactions. There is no way to recognize the source of creating or cashing out the virtual currencies. This leads to inability to track the transactions in case of money laundering suspicion. Moreover, unknown identity will enable criminals to get paid with virtual currency for their crimes.

- **Black market for cryptocurrency:** The financial position of some social games such as Second Life and World of Warcraft are mature enough to create black market for buying and selling their virtual currency. The increasing popularity of virtual currency in online environment has led to a thriving black market for trading virtual currency with real money. By observing several social games' forums, some fraud cases have been raised and discussed between users. For example, when a gamer decides to quit from a game, he/she may want to sell the owned virtual currency by offering them in the game's forums. The way of receiving the payments is risky since many malicious users may not complete the payment or they dispute after paying. In this case, they will get their money back plus the virtual currency.

VII. CONCLUSION

Cryptocurrency offers a brand new, effective and engaging model of payment ways which will boost firms and operators revenues. It conjointly offer various methodology of payment, excluding real cash, that change users to create money activities like shopping for, selling, transferring and exchanging simply. Although cryptocurrency platforms open many channels for digital financial transactions and provide a new form of currency with different mechanisms and methods, they are not controlled and regulated as they deserved. The research analyzed cryptocurrency platforms and extracted many concerns and challenges that put such financial system under the risk. My analysis indicates that cryptocurrency is very likely to be the next currency platform due to the large volume of cryptocurrency that is flowing in different systems, the huge expanding and growing of using and implementing cryptocurrencies and the opportunities that cryptocurrency systems offer.

The Cryptocurrency field creates a lot of research opportunities and many studies need to be done in order to provide scientific contents. The correlation between the real financial laws and the legislative status of implementing cryptocurrency platform needs to be studied further from various different prospective. Trust and confidence are important factors that need to be investigated further in terms of using and trading the Cryptocurrency forms. The further research scope can be extended to developing use-cases for applications of cryptocurrency across different sectors in India.

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