CRYPTOCURRENCY: THE STUDY OF CHALLENGES & ITS POTENTIAL IMPACT ON GLOBAL ECONOMY

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ABSTRACT

Cryptocurrencies are digital money in electronic payment systems that generally do not require government backing or the involvement of an intermediary, such as a bank. Instead, users of the system validate payments using certain protocol. Cryptocurrencies have long been heralded as the future of finance, but it wasn't until 2020 that traditionally conservative and risk-averse institutions became proactive investors in this complicated alternative asset class. Proponents of the technology argue cryptocurrency can effectively serve those functions and will be widely adopted. They contend that a decentralized system using Cryptocurrencies ultimately will be more efficient and secure than existing monetary and payment systems. Over the past ten years, attention to money and the financial systems has come under greater scrutiny by a wider public concerned with current levels of transparency, management, accountability and fairness. Accompanying this scrutiny is an era of unprecedented technological innovations that open up the range of possibilities for how money works.

***Keywords**: Cryptocurrency, Decentralised system, Block chain technology*

Introduction

Cryptocurrency- A New Money

Cryptocurrencies have been one of the most interesting and perhaps most misunderstood phenomena of the early 21st century. They have gain popularity and potential for 'disrupting' and improving traditional financial systems. Cryptocurrency, sometimes called crypto-currency or crypto, is any form of currency that exists digitally or virtually and uses cryptography to secure transactions. Cryptocurrencies don't have a central issuing or regulating authority, instead using a decentralized system to record transactions and issue new units.

Cryptocurrency is a digital payment system that doesn't rely on banks to verify transactions. It's a peer-to-peer system that can enable anyone anywhere to send and receive payments. Instead of being physical money carried around and exchanged in the real world, cryptocurrency payments exist purely as digital entries to an online database describing specific transactions. When cryptocurrency funds are transfer, the transactions are recorded in a public ledger. Cryptocurrency is stored in digital wallets.

Cryptocurrency received its name because it uses encryption to verify transactions. This means advanced coding is involved in storing and transmitting cryptocurrency data between wallets and to public ledgers. The aim of encryption is to provide security and safety.

Blockchain-based permission less Cryptocurrencies have, by design, a uniquely low barrier for entry. Any individual can participate in the payment system as long as they have access to an Internet connection. This makes it possible for anyone to actively participate in the system and ensure the accountability of others in the network. With 1.7bn people in the world without access to a bank account, regular payment providers have often failed to provide access to an effective payments system. This is especially true in the midst of a worldwide surge in access to the Internet and secure internet servers

The first cryptocurrency was Bitcoin, which was founded in 2009 and remains the best known today. Much of the interest in Cryptocurrencies is to trade for profit, with speculators at times driving prices skyward.

Review of Literature

Vora (2015) explained that crypto currencies are a welcome development, they will offer competition to the existing modalities of money and government regulations, they will provide alternate means to economic agents for their transactions, and their innovative existence should be encouraged so that it can help to a great extent to the developing countries to come forward and boost their economy

Wonglimpiyarat, 2016 highlights that there are obstacles of lawless tender where Bitcoin wants the government's legislation to boost the permissibility of this new currency. Bitcoin currency may transform the future of banking in developing countries but it is hard to substitute a cash-based society.

Kurihara & Fukushima, 2017 explained, it is not digital cash, which has prevailed all over the world. Unlike central bank- and government-issued currency, Bitcoin can be inflated at will, the supply of Bitcoin is limited to a certain volume, which cannot be changed.

Chohan (2017) conducted a thematic review on cryptocurrencies. However, several points in Chohan's research remain theoretically unexplored and conceptually unelaborated, such as the challenges of cryptocurrencies in the fnancial ecosystem.

Dorfleitner & Lung (2018) document that the popularity of cryptocurrencies in the financial context has been marked by exponential market volume growth.

Flori (2019) makes a comprehensive review of the financial applications of cryptocurrencies. Nevertheless, the scope of his study is narrowly focused on bitcoin.

Objective of the study

This study is one of the attempts towards understanding the role of cryptocurrencies in reshaping and disrupting current financial systems. The study helps in assessing the role and impact of cryptocurrency on global commerce.

Research Methodology

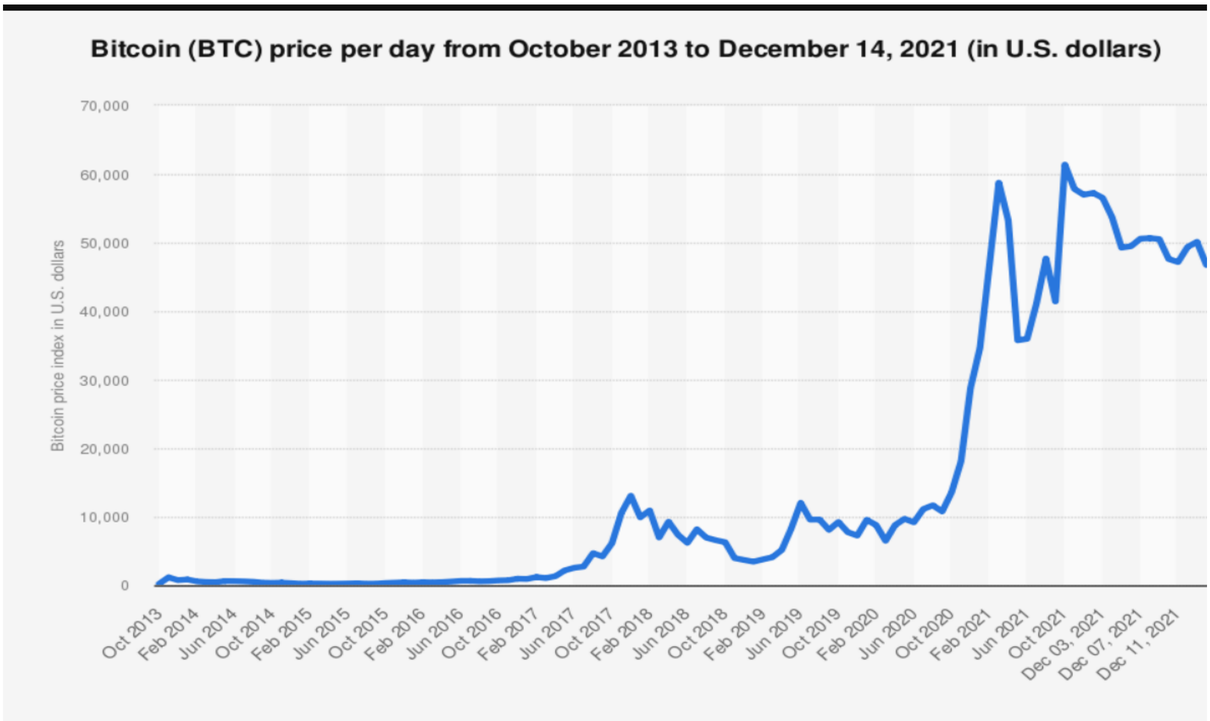
The present paper is based on secondary data. Various research papers, newspapers, websites have been considered to for the study

Cryptocurrency in circulation

Analyzing data about certain characteristics and the use of cryptocurrency would be helpful in measuring how well cryptocurrency functions as an alternative source of payment and thus its future prospects for functioning as money. However, conducting such an analysis currently presents challenges. The decentralized nature of Cryptocurrencies makes identifying authoritative sources of industry data difficult. In addition, the recent proliferation of cryptocurrency adds additional challenges to performing industry-wide analysis. For example, as of March 10, 2020, one industry group purported to track 5,170 Cryptocurrencies trading at prices that suggest an aggregate value in circulation of more than $231 billion.41. As of March 9, 2020, the price of one Bitcoin was $7,945 and approximately 18.3 million Bitcoin were in circulation, making the value of all Bitcoin in existence about $144 billion. Although these statistics drive interest in and are central to the analysis of Cryptocurrencies as investments, they reveal little about the prevalence of Cryptocurrencies.

Monetary systems and financial development

Blockchain-based monetary systems hold the potential to impact the macroeconomy, as the new payment systems challenge the traditional roles that banks have always played. Cryptocurrencies may be viable competition for fiat currencies during periods when a central bank is perceived as weak or untrustworthy. However, the technology behind Cryptocurrencies has the potential to improve central banks operations and can serve as a platform to launch their own Cryptocurrencies (Raskin and Yermack, 2016). The mechanisms through which central banks implement monetary policy can be technical, but at the most fundamental level these banks conduct monetary policy by regulating how much money is in circulation in an economy. Currently, the vast majority of money circulating in most economies is government-issued fiat money, and so governments (particularly credible governments in countries with relatively strong, stable economies) have effective control over how much is in circulation. However, if one or more additional currencies that the government did not control were also prevalent and viable payment options, their prevalence could have a number of implications. The widespread adoption of such payment options would limit central banks' ability to control inflation, as they do now, because actors in the economy would be buying, selling, lending, and settling in cryptocurrency. Central banks would have to make larger adjustments to the fiat currency to have the same effect as previous adjustments, or they would have to start buying and selling the Cryptocurrencies themselves in an effort to affect the availability of these currencies in the economy. Because cryptocurrency circulates on a global network, the actions of one country that buys and sells cryptocurrency to control its availability could have a destabilizing effect on other economies that also widely use that cryptocurrency; in this way, one country's approach to cryptocurrency could undermine price stability or exacerbate recessions or overheating in another country.



Source: Coindesk ,Statista2021

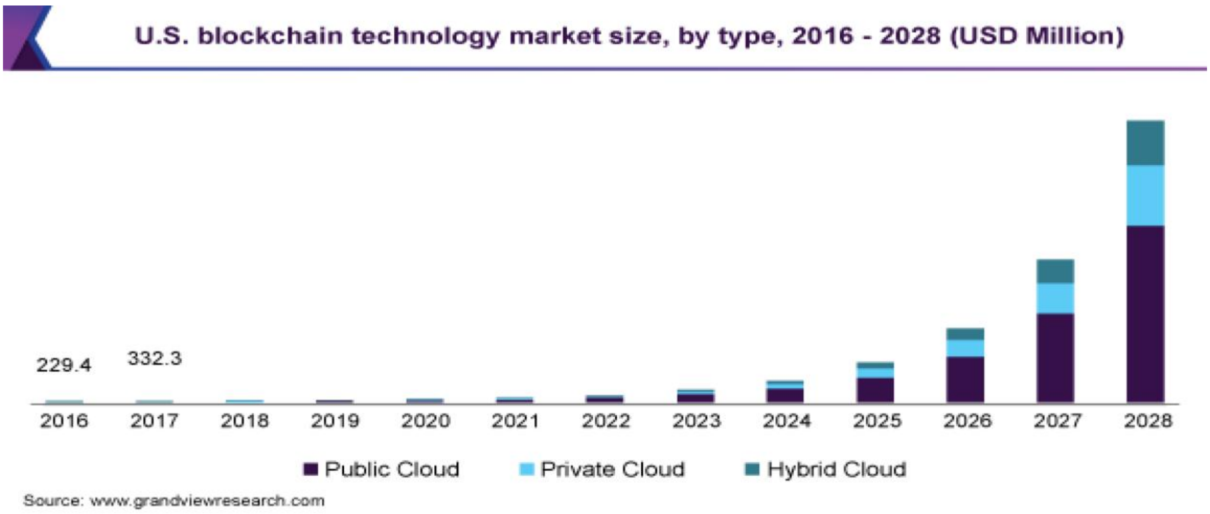
Benefits of Cryptocurrencies

Touching upon all major currencies, cryptocurrencies are publicly accessible, autonomous real-time settlement assets. More recently, they have gained a reputation as programmable money, term for real money that is represented in digital form or by tokens – for the masses. Programmable money is tracked with corresponding electronic ledgers, which are commonly known as block chains.

The growing base of online citizens, coupled with the subcontinent's programs for digitization and financial inclusion, has helped consumers become more aware of and warm up to digital exchanges and Cryptocurrencies.

The new form of currency has established itself as a popular and viable source of currency across the world because of its autonomy and convenient nature. Different forms of cryptocurrency were invented to serve as an alternative source of currency.

The cryptocurrency market is usually available to trade 24 hours a day, seven days a week because there is no centralised governance of the market. Cryptocurrency transactions take place directly between individuals, on cryptocurrency exchanges all over the world. However, there may be periods of downtime when the market is adjusting to infrastructural updates.



The Challenge of Cryptocurrencies in the era of Digital Revolution

As with any new technology, risks are present. In the nascent cryptocurrency market, one concern involves the anonymous nature of transactions in some cryptocurrencies, which could allow nefarious actors to conduct illegal business, or worse, to pose a broader 2 threat to our society and institutions. The benefits, such as low transaction cost, security and the promise of quick processing, are readily measurable, but quantifying the risks is less straightforward.

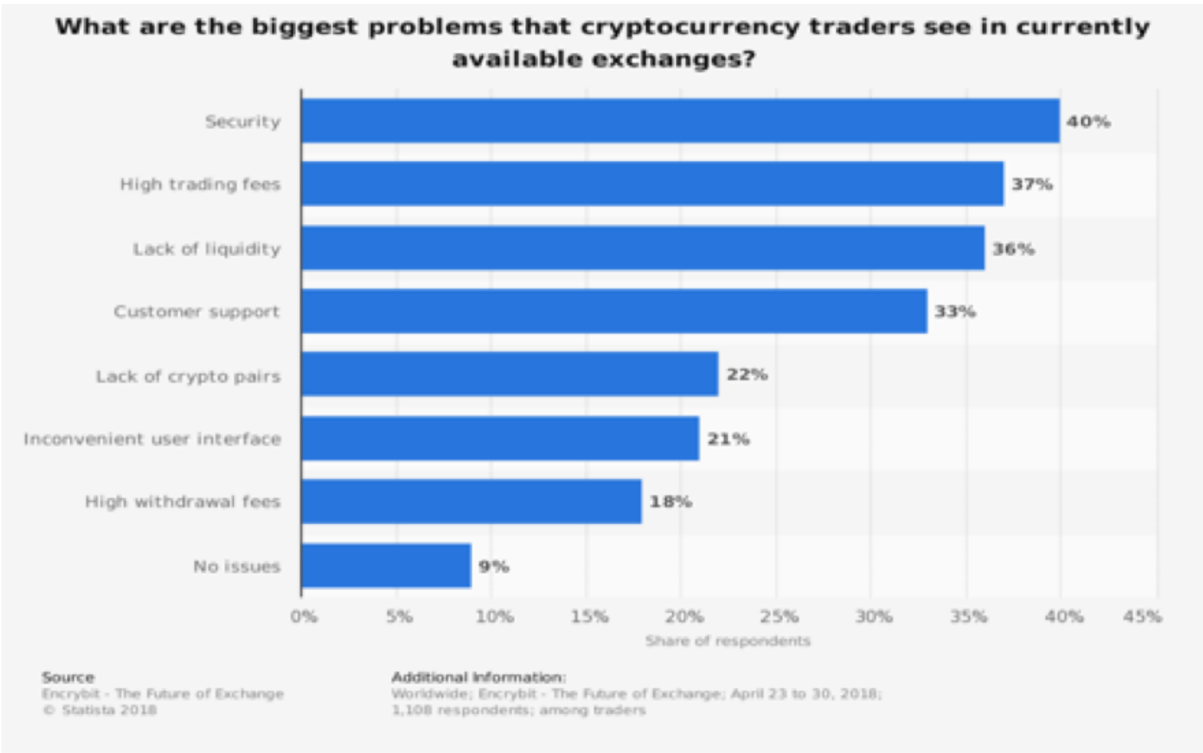
The recent high volatility in the price of many cryptocurrencies undermines their ability to serve as a unit of account and a store of value. Cryptocurrencies can have significant value fluctuations within short periods of time; as a result, pricing goods and services in units of cryptocurrency would require frequent repricing and likely would cause confusion among buyers and sellers.

The biggest problem currently in the crypto market is the lack of security. Indeed, with news of hackings and breaches often making headlines, users are demanding more protection over their assets and data. Exchanges are essentially so vulnerable to hacks because they centralise the risk, so further decentralisation can be an option in the pursuit for maximum security.

The lack of transparency, accountability and professionalism from renowned institutions can poison the benefits of digital currencies and undermine the strength and influence of blockchain adoption in different industries beyond finance. True blockchain believers call for an end to sketchy practices in the financial system and market structures, promoting widespread professionalism and ethical standards.

A secondary issue of reduced liquidity is that it puts the power into the hands of cryptocurrency exchanges with large liquidity. Some major exchanges now charge up to $1 million to get tokens listed, essentially selling liquidity to the token projects.

Currently, the majority of crypt exchanges are only lightly regulated, leaving room for sometimes shady or abusive manoeuvres. It is reported that crypto exchanges use bots to manipulate the prices of coins



Source: Encrybit- The Future of Exchange , April 23-30 2018;

Cryptocurrency in India

In a country like India, where many people are underserved by traditional financial institutions or unable to access their services, crypto finance enables them to make financial transactions quickly, cheaply and without judgment. Moreover, Cryptocurrencies open up a new asset class for consumers to grow their wealth, as a form of investment.

According to a recent report by blockchain data platform **Chainalysis**, India ranks second in the world in terms of cryptocurrency adoption. With a recent survey by consulting firm Kantar noting that a sixth of urban Indian residents own cryptocurrency. It is estimated that 27 million people, 2.0% of

India's total population, currently own cryptocurrency.

Crypto investments in the country grew more than seven-fold from $923 million to nearly $6.6 billion between April 2020 and May 2021. These developments, along with increasing rural Internet penetration, are improving financial access in the country.

Embracing Cryptocurrencies will not only support India's financial inclusion goal, but also lower the cost of processing transactions, make the world less dependent on cash, and increase the mobility of money across the globe.

For more than a decade, India has consistently been among the world's largest recipients of remittances. As remittances often involve high fees and long waiting times for fund transfers, their operating model has key implications for developing countries like India. With their aforementioned benefits, Cryptocurrencies offer a viable solution to make global remittances cheaper and faster. Despite the regulatory uncertainty and confusion regarding policies affecting crypto, India's crypto adoption rate has continued to grow rapidly. As of November of 2021, crypto ownership in India was at the 14.7% mark. Five months later, in April this year, the value doubled to 29.9%, according to Finder's Report data.[2]

According to the Chainalysis 2021 Global Crypto Adoption Index, India ranks second in overall index rating, behind Vietnam. This comes amidst suggestions that Crypto is illegal in the country. In February, Sitharaman noted that the government wishes to impose a 30% tax on any income from trading crypto and a further 1% tax on all crypto transactions.

The RBI had in 2018 sought to ban Crypto, but a ruling from the Supreme Court destabilized the apex bank's plans; this leaves crypto well within the grey area – neither legal nor illegal. India-based crypto enthusiasts are looking to see what will become of these recent plans. India, like other countries, has also shown interest in issuing a CBDC with an underlying Rupee value.

As of 2021, it is estimated that 59% of the crypto users in India are male. However, the amount of female users has increased by 300% from 2020 to 2021, signaling strong growth in interest and acceptance of crypto among the female users.

According to WazirX, one of the largest crypto exchanges in India, 66% of WazirX's users are under 35 years of age, and they saw an increase of over 1000% in female users signing up to use their platform in 2021.

Conclusion

Cryptocurrencies are struggling to uphold their creator's objectives, given that no existing cryptocurrency has been universally successful in fulfilling the role of 'money'. This is partly due to the failure in practice for a decentralized system to work in the presence of large mining consortiums, a lack of price stability, high transaction costs with large electricity consumption and, potentially lower degrees of transparent governance. There also exists a general distrust of new currencies issued by new institutions. While central banks are not perfect, in most advanced economies they have built a trust premium compared to private sector companies, which makes them better candidates in the opinion of most citizens for issuing money and managing or regulating financial transactions. Cryptocurrency finds itself in a similar position, with limited awareness of its ability to reshape the financial landscape and its capacity for positive global impact. Cryptocurrencies were invented to improve the way people create, store, and transfer value. However, they have the potential to serve the higher purpose of financial inclusion, by providing an investment and transaction option to everyone – irrespective of nationality, ethnicity, race, gender, or socio-economic class.

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