Crypto Currency: Fostering Towards Financial Inclusion

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Abstract

The emergence of the crypto business has spawned an ecosystem of fintech start-ups that are utilizing cutting-edge methods to reach out to new investors across borders. People are flocking to this new-age, fast-emerging industry due to crypto currency's constant ascent. Despite the industry's frequent headwinds in the form of market instability, the lure of huge returns and rapid money has drawn a large number of investors. Furthermore, regulatory uncertainty has failed to damper the spirits of investors, particularly those who are new to the investment business. In light of this, many people are wondering whether the growing crypto currency business may be leveraged to expand the financial inclusion net. There is a belief that the prominence of the crypto business has piqued the interest of potential investors, who want to learn more about financial investment tools. This article is intended to present the basics of crypto-assets centres: block chain, the disruptive technology upon which these assets are built; the role and adoption of crypto assets for payments; and last but not least, the prospect of crypto-assets as an unique asset class.

Keywords: Financial Inclusion; Crypto Currency; Fintech; Distinct Asset Class.

I. INTRODUCTION

Many people have been surprised by the explosion in the interest for crypto-assets. India is projected to have over ten million bit coin users, with the number rapidly rising. For a larger audience attempting to comprehend this new world and its terminology, the process is difficult and tough.

A crypto currency, also known as a crypto-currency, crypto, or coin, is digital money that functions as a means of exchange over a computer network and is not supported by any central authority, such as a government or bank.

On the mechanism, when a transaction occurs on a block chain, it is broadcast to all computers on the network. An agreed consensus process authenticates a block of new transactions, and then the validated transaction block is added to the preceding chain of blocks. Because each block is linked to the one before it, double spending is difficult because it would necessitate modifying each following block. Many examples include ether, cardano, doge coin, tether, stellar, and others, followed by the Bit coin. Crypto currencies are the collective name for them. The prefix 'crypto-' refers to the fact that the transactions are generated or authenticated using cryptography.

II. OBJECTIVES OF THE STUDY

1. To understand crypto-assets centres: block chain, the disruptive technology as the foundation upon which this new asset class is built.

2. To investigate the role and adoption of the distinct class asset (crypto currencies) towards fostering financial inclusion.

3. To bring out the implied risk and challenges with the adoption of crypto currencies.

III. RESEARCH METHODOLOGY

The research is based on secondary information. Secondary data is gathered from numerous journals, publications, and websites to investigate the role of the distinct class asset (crypto currencies) towards fostering financial inclusion.

IV. THE DISTINCT CLASS OF CRYPTO ASSETS

• A revolutionary technology, block chain

Block chain, a distributed ledger system, has emerged as one of the most revolutionary and pervasive technologies of our time in the previous decade. In its most basic form, block chain is a distributed network of different users sharing an encrypted digital database. A transaction on block chain is broadcast to all network participants, establishing an unalterable transaction record. This one basic characteristic has the power and potential to revolutionize financial services by providing a platform that enables better transparency, enhanced security, operational efficiencies, and cost reductions, an unbeatable combination for the future of financial services platforms.

The block chain technology platform is the foundation for crypto currencies. Bitcoin and Ether are the most popular crypto currencies, with over 4,000 in circulation. Ethereum is a digital software platform that uses the same block chain technology as Bit coin, but goes a step further by utilizing tamper-proof and decentralized contracts, as well as its own crypto currency, Ether. The more adaptable character of Ethereum, according to most crypto analysts, is expected to lead to considerably higher adoption and usability in the years ahead.

Crypto currencies are decentralized systems in which transactions are authenticated by consensus among members.

• The acid test with digital payments

Every day, billions of transactions and payments are made digitally by banks, e-wallets, insurance and asset management firms, and other financial institutions. Will crypto currencies be considered a far-reaching and frequently utilized payment option in the future, as most people believe? In some places of the world, this is already the case.

El Salvador just stated that it will be the first country to accept Bit coin as legal tender beginning of September 7, 2021. Many of us may be surprised by this, but it is not outside what Satoshi Nakamoto originally envisioned as a more utopian vision of Bit coin when it was launched in 2008. Bit coin was envisioned as the money for individuals at the bottom of the wealth pyramid and those who were unable to use traditional financial channels.

It was a vision of financial inclusion in which communities could easily transact payments digitally using their smart phones, with control exerted collaboratively by all members of the community on a technology platform that allowed for self-regulation. In countries where fundamental banking channels are lacking, the adoption of crypto-currencies can be transformative to a society, allowing people to make cashless payments and perhaps saving more.

Scalability and new digital fiat currencies are likely to stymic wider adoption of crypto currencies for payments. While Bit coin is projected to process 4.6 transactions per second on average, compared to Visa's 1,700 transactions per second, its adoption potential is now limited by its inability to grow exponentially.

A second potential issue is if governments begin to tokenize their own fiat currencies, i.e., might we have a digital rupee or digital dollar on a block chain platform? We'd have the best of both worlds: payments done using digital fiat currencies that are recognized as a medium of exchange with a store of value and a unit of account, all on a rock-solid technology platform.

Central banks have already begun to take steps in this direction. China had distributed 200 million digital Yuan as part of multiple pilot projects across the country by April 2021, and other countries are likely to rapidly follow suit with their own digital fiat currencies. This may create challenges for crypto currencies in terms of payments, but it has the potential to become an asset class for investors.

• The birth of a new asset class: crypt currency

While there has been a number of global macroeconomic factors, such as expected negative yields across developed, the contemporary interest in crypto currencies has been spurred by historic highs in equities markets and unprecedented volumes of liquidity supplied by central banks, there are also significant social factors such as FOMO (fear of missing out), genuine curiosity, and speculation that are fostering a new breed of crypto-asset investors and traders.

Bit coin broke the \$60,000 per unit barrier in April 2021. In June 2021, its worth halved just as quickly. Bit coin has a stipulation in its source code that there will only be a finite supply

of 21 million bit coins produced, so the scarcity of the asset produces a value and people believe in its value.

For the average investor, though, such volatility is difficult to bear. Crypto currencies' speedier and stronger return in 2020 demonstrated the level of robustness that more knowledgeable investors were searching for. However, investors who have been waiting to invest will be closely watching how crypto currencies go from here, as well as the volatility that comes with them.

Crypto currencies operate as a hedge (although one with high volatility) with poor correlation to other assets. They are not a gold alternative because they trade as pro-cyclical risk-on assets and should be treated as such.

Unlike conventional commodities, which are valued based on scarcity and utility, cryptos are valued based on their network. The possibility of the network becoming obsolete or a competitor network becoming more appealing is thus a key risk for crypto-asset holders. Surprisingly, the network itself acts as a risk mitigater, as all players, including miners, exchanges, developers, merchants, investors, and speculators, have a financial interest in the network's success. As a result, even during periods of value erosion, holders of crypto-assets are driven to struggle to maintain the asset's worth. While trading and investing in crypt currencies is not prohibited in India, it is unregulated, which creates a misperception regarding this asset class among the general public. Regulators all across the world are attempting to keep the delicate line between traditional financial markets and cryptos in check. The use of crypto currencies for illegal drugs, terrorist financing, ransom ware, and other criminal activities, as well as how to monitor these transactions, is the major issue for regulators.

The amount of energy used to mine crypt currency has prompted a heated discussion among the ecologically minded. Mining Bit coin alone is projected to take as much electricity as a medium-sized European country. If investors are to take this asset class seriously in a postpandemic world where ESG integration and climate risk are significant concerns, the mining process will need to transition to more efficient and renewable fuel sources.

V. Crypto currencies towards financial inclusion

• Investment and transaction choice

According to industry estimates, India has 15 million to 20 million crypto investors, with total crypto holdings of roughly 400 billion Indian rupees (\$5.35 billion).

Few people could have predicted how much the Internet would change the world in the 1990s. For example, when Amazon – now the world's largest retailer outside of China – began as an online book seller in 1994, few of its early customers expected the company's offers to expand to include food, electronics, cloud computing, and streaming services. Today, cryptocurrency is in a similar situation, with little understanding of its potential to change the financial environment and have a beneficial global influence. Cryptocurrencies were created to let people generate, store, and transfer wealth more efficiently. They do, however, have the ability to contribute to the greater goal of financial inclusion by providing an investment and transaction choice to everyone, regardless of nationality, ethnicity, race, gender, or socioeconomic status.

Cryptocurrencies are publicly available, autonomous real-time settlement assets that cover all major currencies. They've recently developed a reputation as programmable money for the public, which is a word for actual money represented in digital form or via tokens. Electronic ledgers, generally referred to as block chains, are used to track programmable money.

There are currently about 1.7 billion unbanked people worldwide, with 190 million in India. India has the world's second-largest online population. According to a recent IAMAI-Kantar ICUBE estimate, there would be 622 million active Internet users in 2020, with that figure predicted to grow by 45 percent to 900 million by 2025. Consumers have become increasingly aware of and comfortable with digital exchanges and crypto currencies as a result of the growing number of internet citizens and the subcontinent's digitalization and financial inclusion projects.

• India – An emerging adopter of crypto currency

Financial inclusion is improving as crypto currency adoption rises. In a country like India, where many people are underserved or unable to use traditional financial institutions, crypto money allows them to conduct financial transactions swiftly, cheaply, and without fear of being judged. Furthermore, crypto currencies create a new asset class for people to invest in and develop their wealth.

As India's Internet usage and digital landscape develop, so does the popularity of crypto currencies among the general public. India is second in the world in terms of cryptocurrency adoption, according to a recent report from block chain data platform Chainalysis. According to various estimates, about 15 million Indians have invested in crypto-related assets to date, with a recent Kantar survey revealing that one- sixth of the urban Indian people possess cryptocurrency.

Between April 2020 and May 2021, crypto investments in the country increased by more than sevenfold, from \$923 million to over \$6.6 billion. These advances, combined with rising rural Internet penetration, are enhancing the country's financial access.

According to a recent PWC analysis, a mix of centralized, decentralized, account-based, and token-based models would most likely be used in the future of money in India. Central Bank Digital Currencies, stable coins, and crypt currencies would coexist with traditional digital and physical currencies in this scenario. Embracing crypto currencies will not only help India achieve its aim of financial inclusion, but will also reduce transaction costs, reduce reliance on cash, and promote money mobility around the world.

For more than a decade, India has been among the top remittance recipients in the world. Because remittances are frequently associated with high fees and long wait times for financial transfers, their business model has significant consequences for developing nations such as India. Crypto currencies, with their aforementioned advantages, provide a feasible solution for making international transfers cheaper and faster.

• India's young population is propelling crypto currency adoption.

India has the right conditions to support a crypto economy, with a huge, digital-savvy population made up of millennial and Generation Z, as well as an abundance of tech personnel skilled in block chain technology. This has resulted in the emergence of block chain firms and the creation of new digital currencies, with the Reserve Bank of India planning to test its own digital currency by December of this year.

Due to the simplicity of use, young Indians aged 18 to 35 are considering cryptocurrency to be a better investment alternative than gold, according to current World Gold Council research.

As India continues to deal with the effects of the Covid-19 outbreak on the economy, financial inclusion becomes a concern as people and businesses pick up the pieces. The country's financial system may become far more democratized and accessible in the future decades. It is hoped that India has the wisdom to give cryptocurrency the attention it deserves while developing its financial inclusion and economic growth strategies.

VI. THE IMPLIED RISK AND CHALLENEGES WIH CRYPTOS

- There is a place for crypto currency as an asset, but it must abide by all regulations and not be used as a backdoor for money laundering... it must be used as an entrance point for a large number of young people into financial markets.
- Because of its high transaction fees and volatility, crypto currency is not ideal for transactions.
- According to Reuters, India's federal government plans to discourage crypto currency trading by applying high capital gains taxes and is also considering classifying crypto currency as an asset class.
- Crypto currencies are not money, financial assets, real estate, or digital assets. As a result, no financial sector authority can regulate it. Regulating something that cannot be defined is impossible.
- If a significant portion of savings and credit shifts to cryptocurrencies, the banking sector will be weakened, if not disintegrating, compromising financial stability.
- India should be especially concerned about the danger of private currencies being used for global strategic domination. If, for example, a private currency substantially replaces the Rupee, the company that runs it (or the government that controls it) might effectively dictate India's economic strategy.
- Virtually all crypto currencies are valued in US dollars (or potentially any of the freely convertible currencies). Wider adoption would result in more people using these currencies. As a result, crypto currencies do not pose the same threat to convertible currencies as the Rupee, which is not a global currency. Following the lead of AEs in the area of crypto currencies would effectively be working against the national currency's interests.

VII. Conclusion

On one hand we've seen how cryptography is based on a concept of avoiding government surveillance. Crypto currencies were created primarily to circumvent the financial system's regulation. It jeopardizes the country's financial sovereignty and exposes it to strategic manipulation by private corporations that create these currencies or governments that control them. On the other hand it is also true that understanding crypto assets is still in its stage of infancy. Because of its constant changing environment, we need to retain an open mind as it evolves. Crypto traders now have limited investor protection, but legislation is trending in the direction of encouraging "positive innovation." Let us not forget that crypto-assets were created with the goal of fostering a more equal society, and we should all hope that it succeeds. Digital currency will also make currency management more efficient and cost effective.

References

- https://timesofindia.indiatimes.com/blogs/voices/how-cryptocurrency-can-supportfinancial-inclusion-in-india/
- https://www.ndtv.com/business/can-cryptocurrency-help-widen-financial-inclusionnet-2865918
- https://www.livemint.com/market/cryptocurrency/crypto-can-bring-about-financialinclusion-nandan-nilekani-11638413061620.html
- https://www.businesstoday.in/crypto/story/crypto-can-bring-about-financialinclusion-nandan-nilekani-314158-2021-12-02
- https://www.forbesindia.com/blog/finance/can-cryptocurrency-revolutionisefinancial-services/
- 6. https://www.firstpost.com/business/budget-2022-need-for-a-systematic-framework-for-cryptocurrency-to-build-financial-ecosystem-10329471.html
- Smagalla, Mengqi Sun and David (6 January 2022). "Cryptocurrency-Based Crime Hit a Record \$14 Billion in 2021". Wall Street Journal. ISSN 0099-9660. Retrieved 16 January 2022.
- "DOJ Releases Crypto currency Enforcement Report". The National Law Review. Retrieved 17 January 2022.
- Pagliery, Jose (2014). Bitcoin: And the Future of Money. Triumph Books. ISBN 978-1629370361.
- Gangopadhayay, S. (2009). How can technology facilitate financial inclusion in India? A discussion paper. Review of Market Integration, 1(2), 223-256.
- He, M. D., Habermeier, M. K. F., Leckow, M. R. B., Haksar, M. V., Almeida, M. Y., Kashima, M. M., ... & Yepes, M. C. V. (2016). Virtual currencies and beyond: initial considerations. International Monetary Fund.
- 12. Chuen, D. L. K., & Deng, R. H. (2017). Handbook of blockchain, digital finance, and inclusion: cryptocurrency, fintech, insurtech, regulation, Chinatech, mobile security, and distributed ledger. Academic Press.
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. Borsa Istanbul Review, 18(4), 329-340.
- 14. Scott, B. (2016). How can cryptocurrency and blockchain technology play a role in building social and solidarity finance? (No. 2016-1). UNRISD Working Paper.

- Arun, T., & Kamath, R. (2015). Financial inclusion: Policies and practices. IIMB Management Review, 27(4), 267-287.
- 16. Gabor, D., & Brooks, S. (2017). The digital revolution in financial inclusion: international development in the fintech era. *New political economy*, *22*(4), 423-436.
- 17. Saiedi, E., Broström, A., & Ruiz, F. (2021). Global drivers of cryptocurrency infrastructure adoption. Small Business Economics, 57(1), 353-406.
- Weber, M., Domeniconi, G., Chen, J., Weidele, D. K. I., Bellei, C., Robinson, T., & Leiserson, C. E. (2019). Anti-money laundering in bitcoin: Experimenting with graph convolutional networks for financial forensics. arXiv preprint arXiv:1908.02591.
- Arner, D. W., Buckley, R. P., Zetzsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and financial inclusion. European Business Organization Law Review, 21(1), 7-35.
- 20. Mader, P. (2018). Contesting financial inclusion. Development and change, 49(2), 461-483.
- 21. Andolfatto, D. (2021). Assessing the impact of central bank digital currency on private banks. The Economic Journal, 131(634), 525-540.
- 22. Hileman, G., & Rauchs, M. (2017). Global cryptocurrency benchmarking study. Cambridge Centre for Alternative Finance, 33, 33-113.
- Liu, Y., Tsyvinski, A., & Wu, X. (2022). Common risk factors in cryptocurrency. The Journal of Finance, 77(2), 1133-1177