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Chapter

INDIA'S TECH-ENTHUSIASTS: CRYPTO-CURRENCY AND THE RESERVE BANK'S ROLE IN TRANSFORMATION

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ABSTRACT

The emergence of cryptocurrencies has ignited a global debate on their impact, potential benefits, and associated risks. This abstract provides an overview of the current state of cryptocurrencies in India, a nation that has witnessed significant developments and regulatory shifts in this space.

In recent years, India has seen a surge in cryptocurrency adoption, with a growing number of individuals and businesses exploring the potential of digital assets such as Bitcoin, Ethereum, and others. This adoption has been driven by factors including increased digitalization, a tech-savvy population, and the desire for alternative investment opportunities. However, the cryptocurrency landscape in India remains complex and evolving. The regulatory environment has been marked by uncertainty, with government bodies issuing conflicting statements and circulars. The Reserve Bank of India (RBI) initially imposed a banking ban on cryptocurrency transactions, which was later overturned by the Supreme Court in 2020, leading to a resurgence of interest in the sector. Since then, regulators have been working on drafting comprehensive legislation to govern cryptocurrencies.

Keywords: *Cryptocurrencies, Tech-Savvy Population, Reserve Bank of India, Bitcoin*

19.1 INTRODUCTION

In the ever-evolving landscape of finance and technology, few phenomena have generated as much excitement, controversy, and intrigue as cryptocurrency. Over the past decade, cryptocurrencies have emerged from the fringes of the digital realm to challenge the very foundations of traditional financial systems. This profound transformation has given rise to a paradigm shift that is reshaping the way we think about money, transactions, and the very nature of trust itself.

Cryptocurrency, a term derived from "crypto" meaning secret or hidden, and "currency" signifying a medium of exchange, represents a novel approach to digital value transfer. The rise of cryptocurrency has not only sparked a revolution in the world of finance but has also triggered intense debates about its merits, risks, and implications. Supporters hail it as a tool for financial empowerment, a means to bypass traditional banking systems, and a hedge against inflation and economic instability. Skeptics raise concerns about its potential for facilitating illegal activities, its volatility, and its lack of regulatory oversight. In this exploration of cryptocurrency, we will delve into the fundamental principles, technologies, and ideologies that underpin this paradigm shift. We will examine the impact of cryptocurrency on various aspects of our lives, from finance and economics to politics and global trade. We will also consider the challenges and opportunities that lie ahead as we navigate this uncharted territory. As we embark

on this journey through the world of cryptocurrency, it is important to recognize that we are witnessing a transformation that has the potential to redefine the very nature of money and financial systems. Whether one views cryptocurrency as a disruptive force or a liberating innovation, it is undeniably a paradigm shift that demands our attention and scrutiny.

19.2 LITERATURE REVIEW

Rahman and Dawood (2019) in his study of Bitcoin and the Future of Cryptocurrency, centering their attention on cryptocurrency as an innovative and technologically advanced substitute for globalization. They explored the potential for an alternative method of conducting cross-border payments and suggested that with effective regulation, cryptocurrency could potentially alleviate many of the financial challenges prevalent in the current landscape.

In his work *Bitcoin As Emerging Virtual Currency and Its Related Impact on India*, Martucci (2020) emphasized the substantial returns and inherent risks associated with Bitcoin. He contended that bitcoins are not yet mature, likening investing in them to leaping into a dark abyss without knowledge of its depth, as Bitcoin lacks any backing. Establishing Bitcoin as either a currency or commodity poses a significant challenge; if deemed a currency, the RBI might assume a pivotal role in its regulation, while categorizing it as a commodity could lead to SEBI taking the regulatory reins.

Marr (2017) in his study on "Bitcoin and Its Prospects in India," observed the impressive growth in cryptocurrency acceptance but did not foresee it replacing traditional paper currencies in the near future. The primary concerns revolve around creating a legal framework that ensures transaction security and devising a method for taxing cryptocurrency. While Bitcoin's soaring popularity has piqued interest, the substantial associated risks have deterred potential investors. To gain trust in this form of currency in India, a robust legal and regulatory framework is imperative.

Ledger. (n.d.) clarified that Bitcoin differs significantly from conventional digital currencies that have gained widespread acceptance worldwide. Unlike currencies issued by central banks and governments, Bitcoin cannot be inflated arbitrarily; instead, its supply is restricted to a fixed volume that cannot be altered.

Gupta (2020) in "CRYPTOCURRENCY-SCOPE IN INDIA" discussed the evolving landscape of finance and currency. Cryptocurrencies, despite their inherent risk, have garnered increasing popularity, posing a challenge for government control over transactions. The Blockchain Foundation of India, comprising approximately 45 crypto dealers, claimed that over the past two months, more than 30 new exchanges had

sought membership. Blockchain technology also holds significant potential for enhancing data storage methods. Despite the cryptocurrency ban, various government organizations in states such as Andhra Pradesh and Maharashtra have adopted blockchain technology, and the future may witness the emergence of over-the-counter markets as alternatives to traditional bank-based transactions.

Global Legal Insights (n.d.) in his work "The Growth of Cryptocurrency in India," focused on the repercussions of cryptocurrencies in India and the associated opportunities. He also examined the regulatory approaches and legislative frameworks of other countries concerning the introduction of cryptocurrencies.

19.3 OBJECTIVE OF THE STUDY

The primary goal of this research paper is to shed light on the legal status of cryptocurrencies in India and examine their potential benefits and drawbacks. Throughout our investigation, we have encountered diverse perspectives from various stakeholders. Readers of this study can anticipate receiving comprehensive insights into the entire cryptocurrency landscape within our nation.

19.4 HISTORY OF CRYPTOCURRENCY

1998 – 2009: The Pre-Bitcoin Era

Before the advent of Bitcoin, earlier endeavors to create digital currencies with encrypted ledgers were made.

2008: The Enigmatic Figure, Mr. Nakamoto

In 2008, an individual using the pseudonym Satoshi Nakamoto posted a paper titled "Bitcoin – A Peer to Peer Electronic Cash System" on a cryptography mailing list. To this day, the true identity of this person remains shrouded in mystery.

2009: The Dawn of Bitcoin

The Bitcoin software was publicly released, marking the commencement of the mining process. Mining involves the creation of new Bitcoins and the recording and validation of transactions on the blockchain.

2010: Bitcoin's First Valuation

Since Bitcoin had not been traded initially and was solely mined, determining its monetary value was challenging.

2011: Emergence of Competing Cryptocurrencies

As Bitcoin gained popularity and decentralized, encrypted currencies gained traction, alternative cryptocurrencies emerged, often referred to as "altcoins."

2013: Bitcoin's Price Crash

Following its initial surge to \$1,000 per Bitcoin, its price swiftly plummeted. Many investors who entered the market during this period experienced losses as the price dipped to around \$300. It took more than two years for Bitcoin to regain the \$1,000 mark.

2014: Scams and Theft

Investigations are ongoing, but those missing coins were valued at \$450 million at the time, which would be \$4.4 billion at today's prices (Helms, 2020).

2016: Ethereum and the Rise of ICOs

Ethereum emerged as a significant competitor to Bitcoin in 2016, fueled by excitement surrounding its blockchain platform. Ethereum introduced Ether as its cryptocurrency to enable blockchain-based smart contracts and applications. This era also witnessed the rise of Initial Coin Offerings (ICOs), crowdfunding platforms where investors could trade tokens representing ownership in startup ventures.

2017: Bitcoin's Ascent to \$10,000 and Beyond

Bitcoin continued to gain popularity as its acceptance as a form of payment expanded. This occurred while its value remained below previous peaks.

19.5 TOP USED CRYPTO CURRENCY

- 1. Bitcoin (BTC):** The original cryptocurrency, conceived in 2008 and launched in January 2009. It utilizes a proof-of-work consensus mechanism, where computing power is employed to verify transactions and create new blocks in its blockchain. It has a maximum supply of 21 million bitcoins, potentially making it deflationary.
- 2. Ethereum (ETH):** Introduced in July 2015, Ethereum is a proof-of-work cryptocurrency initially designed as a decentralized internet infrastructure. It can execute smart contracts, which automatically perform actions when specific conditions are met. Ethereum is in the process of transitioning to a proof-of-stake consensus mechanism, where transactions are verified through staking ethereum.

3. **Tether (USDT):** A stablecoin launched in July 2014 as RealCoin, it's pegged 1:1 to the US dollar and backed by reserves equivalent to its entire supply. Tether operates on the Ethereum blockchain and records high 24-hour trading volumes due to traders using it as a safe haven during market dips, although concerns about its full backing persist.
4. **Binance Coin (BNB):** BNB is the native cryptocurrency of Binance, the world's largest cryptocurrency exchange by trading volume. Launched in June 2017, holding BNB offers users discounts on Binance's trading fees.
5. **Cardano (ADA):** Introduced in 2015 and available for trading in 2017, Cardano is a proof-of-stake cryptocurrency similar to Ethereum, offering a general-purpose utility blockchain. It recently added the capability to execute smart contracts in September 2021.
6. **Ripple (XRP):** Launched in 2012 as OpenCoin, Ripple positions itself as a remittance network facilitating cross-border transfers for financial institutions. It employs its own consensus algorithm, allowing over 1,000 transactions per second, in contrast to Bitcoin's 7 transactions per second.
7. **Dogecoin (DOGE):** A meme coin launched in December 2013, Dogecoin features a Shiba Inu dog as its mascot. Initially a joke, it has gained significant popularity and a loyal following, leading to rapid price increases.
8. **Solana (SOL):** A relatively new blockchain platform introduced in 2020, Solana promises scalability surpassing Bitcoin and Ethereum. Known for its low ecological footprint, fast transaction speeds, and minimal fees, it's favored for NFTs, decentralized exchanges (DEXs), and applications. Critics argue that it's heavily influenced by VC funding and lacks decentralization, experiencing notable outages.
9. **Monero (XMR):** A privacy-focused cryptocurrency launched in 2014, Monero offers greater anonymity compared to Bitcoin. It employs unique features such as one-time stealth addresses, ring signatures to mix transactions, and hidden transaction amounts. Due to its effectiveness, it has been delisted from several exchanges to comply with anti-money laundering regulations.
10. **The Sandbox (SAND):** Alongside Decentraland (MANA), The Sandbox is a significant cryptocurrency in the gaming and metaverse space. Launched in August 2020, SAND serves as the governance and utility token for The Sandbox

gaming platform, enabling users to purchase in-game items, participate in voting for upgrades, and stake tokens for rewards.

19.6 GOVERNMENT INITIATIVES FOR CRYPTO CURRENCY IN INDIA

1. **RBI (Reserve Bank of India) Ban Lifted:** In March 2020, the Supreme Court of India lifted the banking ban imposed by the RBI on cryptocurrency transactions. This decision allowed individuals and businesses to resume trading in cryptocurrencies.
2. **Crypto Bill:** The Indian government was reportedly working on a comprehensive cryptocurrency bill that would provide regulatory clarity and establish a legal framework for cryptocurrencies. The draft bill, known as the "Cryptocurrency and Regulation of Official Digital Currency Bill, 2021.
3. **Pilot Projects:** Some state governments in India had expressed interest in exploring blockchain technology and cryptocurrencies for various use cases, including land registration, supply chain management, and healthcare. These pilot projects aimed to assess the feasibility and benefits of blockchain technology in different sectors.
4. **Blockchain and Crypto Education:** Various educational institutions and organizations in India started offering courses and training programs on blockchain technology and cryptocurrencies to educate individuals and professionals about the technology and its potential applications.
5. **Taxation:** The Indian government was also looking into ways to tax cryptocurrency transactions and gains, which could provide more clarity on the tax treatment of cryptocurrencies.
6. **Consumer Awareness Campaigns:** Government authorities and financial regulators were actively warning the public about the risks associated with investing in cryptocurrencies and the potential for fraud and scams.

19.7 BENEFITS OF CRYPTO CURRENCY

1. **Reduced Remittance Costs:** Cryptocurrencies can facilitate cross-border remittances at a lower cost compared to traditional financial institutions, benefiting Indian expatriates and their families.
2. **Transparency and Security:** Blockchain technology, which underlies cryptocurrencies, offers a transparent and secure ledger system that can help

reduce fraud, corruption, and inefficiencies in various sectors, including supply chain management and government services.

3. **Investment Opportunities:** Cryptocurrencies offer Indian investors a new asset class with the potential for high returns, diversification, and hedging against inflation or economic uncertainty.
4. **Greater Control:** Individuals in India can have greater control over their finances with cryptocurrencies, as they don't rely on traditional banks or intermediaries. Users can access their digital assets at any time, 24/7.
5. **Privacy:** Some cryptocurrencies offer a degree of privacy and anonymity, which can be appealing to users who value financial privacy in a country where financial transactions are often closely monitored.
6. **Economic Growth:** The blockchain and cryptocurrency industry can stimulate economic growth by fostering innovation, creating jobs, and attracting investment (CNBC, 2018).

19.8 DRAWBACKS OF CRYPTO CURRENCY

1. **Lack of Regulation:** One of the significant drawbacks of cryptocurrencies in India was the absence of clear and comprehensive regulations.
2. **Legal Uncertainty:** Due to the lack of regulation, there was legal uncertainty surrounding the use and ownership of cryptocurrencies. This made it challenging for individuals and businesses to engage with cryptocurrencies without the risk of potential legal repercussions.
3. **Banking Restrictions:** In 2018, the Reserve Bank of India (RBI) issued a circular that effectively prohibited banks from providing services to cryptocurrency-related businesses. This decision made it difficult for cryptocurrency exchanges to operate and for individuals to buy or sell cryptocurrencies using the banking system.
4. **Lack of Consumer Protection:** If individuals lose their cryptocurrency holdings due to hacking or other security breaches, there may be no recourse for recovery.
5. **Investment Risks:** Many people in India were investing in cryptocurrencies without fully understanding the risks involved. This speculative behavior can lead to financial losses, especially when people invest money they cannot afford to lose.

6. **Taxation Challenges:** The taxation of cryptocurrency transactions and holdings was another challenge. There was confusion regarding how to report cryptocurrency gains and losses for tax purposes.
7. **Technological Barriers:** Cryptocurrencies require a certain level of technological knowledge and infrastructure to use securely. Many people in India lacked access to the necessary technology and internet connectivity, which limited the adoption of cryptocurrencies (Economic Times, n.d.).

19.9 CONCLUSION

Cryptocurrency presents an appealing payment model, offering both efficiency and security enhancements that can benefit businesses. It serves as an alternative to traditional cash transactions, enabling users to engage in financial activities such as transfers, exchanges, purchases, and sales seamlessly, with the added security of blockchain technology. While there are factors that could positively impact e-commerce, e-business, and e-payment sectors, there are also negative aspects affecting this method of transaction. To build trust, it is imperative to implement effective regulation and control measures for cryptocurrency. Given the growing global interest in cryptocurrency and blockchain, outright banning it in India is not a viable option, and we eagerly await the RBI's stance on cryptocurrency regulation. The sooner we have clarity on this matter, the better.

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