International Journal of Enhanced Research in Management & Computer Applications,
ISSN: 2319-7471, Volume 15 Issue 5, May 2026

Digital Assets, Web3 and Cryptocurrency Regulation in India: A Study of Emerging Trends, Challenges and Opportunities in 2026

Ms. Aditi Methi

Assistant Professor, IITM, GGSIPU, New Delhi

ABSTRACT

The rapid evolution of cryptocurrency, blockchain technology, and Web3 ecosystems has significantly transformed global financial systems and digital economies. India has emerged as one of the largest cryptocurrency adoption markets due to increasing internet penetration, fintech innovation, digital payment infrastructure, and a young technology-oriented population. Simultaneously, the rise of decentralized finance (DeFi), tokenized assets, Central Bank Digital Currencies (CBDCs), and artificial intelligence integration with blockchain has redefined the scope of digital assets beyond speculative investment instruments. This research paper examines the emerging trends, regulatory developments, opportunities, and challenges associated with cryptocurrency and blockchain adoption in India in 2026. The paper also analyses government policies, taxation frameworks, investor behavior, cybersecurity risks, and institutional participation. The findings suggest that India possesses strong potential to become a global blockchain innovation hub if supported by balanced regulation, improved investor awareness, and sustainable technological development.

Keywords: Keywords: Cryptocurrency, Blockchain, Web3, Digital Assets, CBDC, DeFi, India, Regulation, FinTech, Tokenization.

INTRODUCTION

Cryptocurrency has evolved from a niche digital payment system into a globally recognized financial and technological innovation. Since the launch of Bitcoin by Satoshi Nakamoto in 2009, the cryptocurrency ecosystem has expanded into thousands of digital assets, decentralized applications, smart contracts, and blockchain-based financial systems (Nakamoto, 2008). In recent years, India has emerged as a major participant in the global digital asset ecosystem due to increased smartphone usage, fintech adoption, and growth in digital payments.

The Indian government and the Reserve Bank of India (RBI) have adopted a cautious yet evolving approach toward cryptocurrencies. While concerns regarding money laundering, tax evasion, investor protection, and financial stability remain significant, policymakers have also recognized the transformative potential of blockchain technology (RBI, 2024). The introduction of taxation on Virtual Digital Assets (VDAs) and the pilot launch of the Digital Rupee indicate India's transition toward a regulated digital finance ecosystem.

Furthermore, the emergence of Web3 technologies, decentralized finance (DeFi), artificial intelligence integration, and tokenized assets has expanded the utility of blockchain applications across industries such as healthcare, banking, logistics, governance, and education (Deloitte, 2025). Therefore, studying the future of cryptocurrency and digital assets in India has become increasingly important from economic, technological, and policy perspectives.

Objectives of the Study

1. To examine the latest trends in cryptocurrency and blockchain adoption in India.
2. To analyse the regulatory environment governing digital assets in India.
3. To identify opportunities associated with Web3 and blockchain technologies.
4. To evaluate the challenges and risks faced by the cryptocurrency ecosystem.
5. To suggest policy recommendations for sustainable growth of digital assets in India.

LITERATURE REVIEW

Several researchers and institutions have explored the impact of cryptocurrency and blockchain technology on modern economies. According to Chainalysis (2024), India continues to rank among the top countries in global cryptocurrency adoption due to strong retail participation and growing developer activity. Kshetri (2023) observed that blockchain technology can improve transparency, reduce transaction costs, and strengthen digital trust mechanisms across industries.

Deloitte (2025) emphasized that enterprise blockchain adoption is rapidly increasing in sectors such as supply chain management, finance, and healthcare. Similarly, PwC (2024) highlighted that tokenization and decentralized finance are reshaping global financial systems by enabling efficient asset transfers and automated smart contracts.

Research by the World Economic Forum (2024) suggested that Central Bank Digital Currencies (CBDCs) can strengthen financial inclusion while ensuring regulatory oversight. However, scholars have also identified major concerns such as cybersecurity threats, market volatility, and regulatory uncertainty (Böhme et al., 2022).

Indian researchers have further argued that cryptocurrency taxation policies and compliance burdens have affected domestic trading volumes and startup growth (Gupta & Sharma, 2024). Despite these concerns, literature indicates that India possesses strong potential for Web3 innovation due to its skilled technology workforce and expanding startup ecosystem.

Current Trends in Cryptocurrency and Web3

The cryptocurrency ecosystem has undergone substantial transformation in recent years. Several important trends are shaping the future of digital assets in India and globally:

1. Rise of Web3 Platforms:
Web3 technologies enable decentralized ownership, peer-to-peer transactions, and blockchain-based applications. Indian startups are increasingly investing in blockchain gaming, NFTs, and decentralized social media platforms.

2. Growth of Decentralized Finance (DeFi):
DeFi platforms provide decentralized lending, borrowing, staking, and investment services without traditional financial intermediaries. The global expansion of DeFi has attracted Indian developers and investors.

3. Central Bank Digital Currency (CBDC):
The Reserve Bank of India has introduced pilot projects for the Digital Rupee (e₹), aiming to improve payment efficiency, financial inclusion, and digital transaction security.

4. Institutional Participation:
Global financial institutions and fintech companies are entering the cryptocurrency market through regulated exchange-traded funds (ETFs), custody solutions, and blockchain infrastructure investments.

5. AI and Blockchain Integration:
Artificial intelligence is increasingly integrated with blockchain technology for fraud detection, predictive analytics, smart contract auditing, and decentralized automation.

6. Tokenization of Assets:
Real estate, artwork, securities, and commodities are being tokenized to enhance liquidity and transparency in financial markets.

Regulatory Environment in India

India's regulatory framework for cryptocurrency remains dynamic and evolving. The Supreme Court's 2020 judgment overturning the RBI banking restriction marked a major turning point for the crypto industry in India. Subsequently, the government introduced a 30% tax on gains from Virtual Digital Assets and a 1% Tax Deducted at Source (TDS) on crypto transactions in the Union Budget 2022.

Although cryptocurrencies are not recognized as legal tender in India, trading and investment activities continue under regulatory observation. Policymakers have increasingly emphasized the need for international cooperation in regulating digital assets due to the cross-border nature of blockchain transactions (IMF, 2024).

Additionally, India's G20 presidency contributed to global discussions on crypto regulation and financial stability. Experts argue that a balanced regulatory framework is essential to encourage innovation while protecting investors and preventing illicit financial activities.

Challenges for Cryptocurrency in India
Despite significant opportunities, the Indian cryptocurrency ecosystem faces several challenges:

- **Regulatory Uncertainty:** Lack of comprehensive legislation creates uncertainty for investors and startups.
- **High Taxation:** The taxation framework has reduced trading volumes on Indian exchanges.
- **Cybersecurity Risks:** Crypto scams, phishing attacks, hacking incidents, and fraud remain major concerns.
- **Investor Awareness Gap:** Many retail investors lack understanding regarding blockchain technology and investment risks.
- **Market Volatility:** Cryptocurrency prices fluctuate significantly, increasing financial risk.
- **Environmental Concerns:** Energy-intensive blockchain networks raise sustainability issues.
- **Compliance Burdens:** Companies face strict Anti-Money Laundering (AML) and Know Your Customer (KYC) Requirements

Opportunities for India
India possesses substantial opportunities in blockchain innovation and digital finance:

• Financial Inclusion:
Blockchain-based financial services can improve access to banking and digital payments in underserved regions.

• Cross-Border Remittances:
Cryptocurrency and blockchain technology can reduce remittance costs and improve transaction efficiency.

• Startup Ecosystem Growth:
India's Web3 startup ecosystem has attracted significant venture capital investments and global partnerships.

• Government Applications:
Blockchain can improve governance through transparent land records, healthcare systems, and supply chain management.

• Employment Generation:
Demand for blockchain developers, cybersecurity experts, and smart contract auditors is increasing rapidly.

• Global Competitiveness:
India can emerge as a global hub for blockchain research, development, and innovation.

Suggestions and Policy Recommendations
1. The government should establish a clear and balanced regulatory framework for cryptocurrencies and digital assets.
2. Investor education and awareness programs should be expanded to reduce fraud and misinformation.
3. Universities and institutions should introduce blockchain and Web3-related academic programs.
4. Sustainable blockchain technologies with lower energy consumption should be encouraged.
5. Collaboration among regulators, fintech companies, researchers, and industry experts should be strengthened.
6. India should actively participate in global discussions regarding cryptocurrency regulation and digital financial governance.

CONCLUSION

Cryptocurrency and blockchain technology are reshaping the future of finance, governance, and digital economies. India stands at a crucial stage where it can leverage blockchain innovation to strengthen its digital economy and global competitiveness. While challenges such as regulatory uncertainty, cybersecurity threats, taxation issues, and market volatility continue to exist, the opportunities associated with Web3, decentralized finance, CBDCs, and tokenization are substantial.

The future growth of cryptocurrency in India will depend on balanced regulations, technological advancement, institutional participation, and investor awareness. With appropriate policy support and innovation-friendly frameworks, India has the potential to emerge as a leading global hub for blockchain and digital asset technologies.

REFERENCES

[1]. Böhme, R., Christin, N., Edelman, B., & Moore, T. (2022). Bitcoin: Economics, Technology, and Governance. Journal of Economic Perspectives, 36(4), 213–238.
[2]. Chainalysis. (2024). Global Crypto Adoption Index 2024 Report. Deloitte. (2025). Global Blockchain Survey 2025.
[3]. Gupta, R., & Sharma, P. (2024). Cryptocurrency Taxation and Digital Asset Regulation in India. Indian Journal of Finance and Technology, 11(2), 44–58.
[4]. International Monetary Fund (IMF). (2024). Global Financial Stability Report: Crypto Assets and Regulation.
[5]. Kshetri, N. (2023). Blockchain's Roles in Strengthening Digital Economies. Telecommunications Policy, 47(1), 102–115.
[6]. Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System.
[7]. PwC. (2024). Digital Assets and Tokenization Report.
[8]. Reserve Bank of India. (2024). Central Bank Digital Currency (CBDC) Pilot Reports.
[9]. World Economic Forum. (2024). The Future of Digital Assets and Financial Inclusion.
[10]. Yermack, D. (2023). Corporate Governance and Blockchains. Review of Finance, 27(3), 771–799.
[11]. Zetzsche, D., Arner, D., & Buckley, R. (2024). Decentralized Finance and the Future of Banking Regulation. Harvard International Law Journal, 65(1), 89–126.