



THE FUTURE OF TAXATION: NAVIGATING CRYPTOCURRENCY AND BLOCKCHAIN CHALLENGES IN INDIA

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1. Abstract

The emergence of blockchain technology and cryptocurrencies has recently introduced a number of novel and complex trends for global tax systems (at the same time). Take, for example, the rapid development of new types of digital currencies and also decentralized finance (DeFi), which seems also to be a new direction. What is painful, in the context of taxation, first, is measuring the bursts that are occurring in tax compliance, reporting, and enforcement right about now. This post analyzes taxation in India with regard to cryptocurrencies and blockchain technology by looking at applicable regulatory frameworks and offering specific suggestions in ways that an effective tax policy balances the pressures seen in innovation in tandem with compliance. Further, this piece delves into the nuances of globally accepted best practices as far as technology and ethical dimensions are concerned for future taxation in the digital age.

Keywords: blockchain technology, cryptocurrencies, taxation, decentralized finance (DeFi), regulatory frameworks, tax compliance, tax reporting, tax enforcement, innovation, digital economy, ethical taxation, and global best practices.



2. INTRODUCTION

Cryptocurrencies, powered by blockchain technology, have revolutionized the global financial landscape. Bitcoin, Ethereum, and other digital assets are increasingly used for investment, payments, and decentralized applications. Blockchain's decentralized ledger ensures transparency, security, and immutability, making it a disruptive innovation across industries. The rise of cryptocurrencies has blurred traditional economic boundaries, complicating taxation. Governments must navigate issues such as anonymity, cross-border transactions, and volatile valuations. Taxation in India's cryptocurrency market requires a delicate balance between fostering innovation and ensuring compliance.

Literature Review

a. Introduction of Cryptocurrency and Blockchain in India- The rise of cryptocurrency and blockchain technology has transformed the financial systems around the world, and India is no exception to these innovations. Blockchain, with its decentralized ledger system, has posed unprecedented challenges to the traditional tax frameworks, and there is an ongoing need for evolution of the regulatory systems to keep pace with these complexities (Sharma, 2023). The development of digital assets based on blockchain technology, such as Bitcoin and Ethereum, has given rise to new types of cryptocurrencies, whose taxation and classification have brought about disputes (Gupta, 2022).

b. Challenges of Taxation and Compliance- Decentralized platform of the blockchain and borderless nature of cryptocurrency transactions pose serious tax compliance and enforcement difficulties (Jain & Agarwal, 2021). The conventional tax systems operate based on centralized financial institutions, and tax and trace digital currency transactions are challenging. The status of cryptocurrencies in India is legally uncertain and thus uncertain about taxation (Bansal & Sharma, 2020). The regulatory loopholes have occurred through the inability of the government to ascertain the legal status of cryptocurrency, hence influencing tax adhesion (Singh & Rai, 2022). Taxation has been made more complicated by DeFi since peer-to-peer transactions are not involving middlemen and rely on smart contracts, which are not manageable through the traditional financial frameworks (Mehta, 2022; Verma, 2023). With increasing adoption of DeFi, monitoring and enforcing taxation on decentralized transactions is a major challenge for tax authorities.

c. Regulatory Frameworks and Policy Recommendations- In order to meet such challenges, regulation specialists suggest simple regulatory guidelines to tax cryptocurrency and blockchain (Singh, 2023). Most believe India needs to categorize crypto as a commodity, asset, and currency to effectively tax (Chopra, 2021). The existing tax of 30% on gains in crypto is regarded as inadequate given the intricacy and



international participation of crypto (Sarkar & Patel, 2022). This unambiguous structure would increase transparency, avoid tax evasion, and foster innovation. Implementation of global best practices like crypto transaction reporting requirements and blockchain analysis for compliance, implemented in the U.S. and Japan (Goel & Sharma, 2021; Reddy & Chawla, 2022), could validate India's strategy.

d. Ethical and Technological Dimensions- Cryptocurrency taxation moral problems are discussed too. There are some writers who say tax governance should trade public interest and freedom against individual freedom with privacy (Verma, 2023). Blockchain transparency and traceability can drive tax compliance without annihilating innovation (Bhagat & Kapoor, 2022). Cryptocurrency regulation has also posed some ethical challenges involving financial inclusion, data protection, and state intrusion in decentralized frameworks. Policymakers need to balance these not to snuff out innovation while encouraging blockchain growth (Patel & Joshi, 2021).

Objectives: The present paper will evaluate the current framework of taxation of cryptocurrencies in India; hence, it explains how under the existing taxation regime, digital assets are taxed and what constitutes the loopholes in the legal structure. The paper also shows the challenges presented by cryptocurrencies and blockchain technology to the Indian taxation system, among which are questions of valuation, tax evasion, cross-border transactions, and unclear regulations. It also puts forward recommendations for a prospective tax policy that is aligned with global trends but responsive to domestic challenges. The study attempts to contribute to the development of a balanced and effective taxation approach for digital assets by considering international best practices in the unique economic landscape of India.

3. METHODOLOGY

Research Approach - This study employs a qualitative research methodology, relying on secondary data sources to analyze the taxation framework for cryptocurrencies in India. The research focuses on existing laws, regulations, global taxation practices, and expert opinions to evaluate challenges and suggest improvements in India's cryptocurrency taxation system.

Data Collection - As no primary data has been gathered, the present study is based solely on secondary sources such as government reports and official policy documents like the Union Budget 2022-23 and RBI guidelines. It also depends on articles in academic journals and published papers on taxation of cryptocurrencies and reports submitted by financial institutions, think tanks, and regulatory agencies. Moreover, information has been collected from news articles and expert comments of well-known financial news websites. Additionally, global case studies of the U.S., Japan, and the European Union have been studied to give a comparative outlook.



Data Analysis - Systematic secondary data review was utilized to determine existing Indian cryptocurrency tax policies and compare India to best practice internationally. Tax compliance, enforcement, and regulatory uncertainty problems were also investigated by this paper as it tried to learn about new technologies such as blockchain analysis that enable tax enforcement. Policy recommendations were also made based on evidence from international practices and on expert views.

Research Framework - The Regulatory Analysis section initially discusses the current legal and taxation regime in India and analyzes their efficacy. The Comparative Study section then delves into taxation systems of developed economies and studies best practices. The Challenges Identification section delves into major challenges of taxing cryptocurrency, such as anonymity, volatility, and cross-border payments. The Policy Recommendations section, lastly, provides reforms on the basis of technological innovations, international cooperation, and moral reasoning.

4. DISCUSSIONS

a. Current Taxation Practices for Cryptocurrencies in India

Regulatory Framework : The Government of India has introduced a formal tax regime for cryptocurrencies within the Union Budget 2022-23, elaborating key provisions relating to regulating virtual digital assets (VDAs). The tax of 30% was imposed on income resulting from the transfer of VDAs, ensuring that cryptocurrency transactions do not evade a high tax rate. Over and above this, a 1% TDS has been introduced for transactions exceeding ₹50,000 in a year or ₹10,000 for specified persons in order to better track and ensure compliance. Conspicuously missing from the framework of taxation is the ability to set off losses in one VDA against gains in another thereby making the crypto taxation regime most draconian. Further, cryptos are not treated as capital gains and hence have unique tax implications unlike other traditional financial assets.

Challenges in Implementation: The main issues in taxing cryptocurrencies in India are valuation, volatility, and cross-border transactions. Because of fluctuating crypto prices, taxable income cannot be ascertained, and it is challenging to determine tax liability. Moreover, most taxpayers are not aware of the precise rules of taxation of virtual digital assets, and therefore they are not complying and inadvertently evading tax. The decentralized blockchain also makes cross-border transactions traceable, and hence wallet-to-wallet transfers and foreign trade become complex. All these issues can be dealt with by an effectively developed and responsive tax system that can deal with the dynamic emerging cryptocurrency market efficiently.

Comparison with Global Practices: India's cryptocurrency tax is unique, taking a high-tax and strict approach. The United States, on the other hand, treats cryptocurrency as property and taxes it on capital gains depending on holding periods. EU countries employ diverse methods, with some exempting low-value transactions from taxation to



encourage take-up of digital assets. Japan requires reporting on all income derived from crypto-related activities, such as staking reward and mining, with harsh penalties for non-reporting. These global disparities emphasize the necessity for India to streamline its tax regime by embracing international best practices in balancing regulation and innovation.

b. Challenges in Taxing Cryptocurrencies

Anonymity and Decentralization: Since decentralized networks run cryptocurrencies, this presents a huge problem for tax authorities in tracing transactions. The lack of a central authority overseeing these transactions makes it difficult to track and verify trades. These challenges are only compounded by the enforcement of such regulations on P2P trades and the use of non-custodial wallets, allowing users to bypass centralized exchanges and take more control over their assets—often making it harder for regulators to monitor and enforce tax compliance. Those are factors showing big needs for innovative solutions to better transparency and proper taxation of digital assets.

Tax Evasion and Money Laundering: The anonymity and decentralization of cryptocurrencies make them vulnerable to tax evasion and illegal uses, a humongous problem for regulators. Though Know Your Customer (KYC) practices are implemented to confirm user identities and monitoring, enforcement loopholes remain. The majority of cryptocurrencies are structured to be anonymous in transactions, and it is difficult for the government to monitor illicit activities or ensure compliance with taxes. These factors indicate the need for strong regulatory measures and stronger enforcement practices to prevent the misuse of digital assets.

Technological Complexity: Technological sophistication of blockchain technology presents a big challenge to tax administrations and regulators. Decentralization hinders tracing transactions and ensuring compliance. Regulator-developer divide on blockchain technology affects proper regulation and taxation, which becomes cumbersome in the implementation of proper rules and taxation regulations. Lack of understanding of blockchain technology puts the government at a disadvantage in countering problems such as fraud, money laundering, and tax avoidance, while stimulating growth in this new business sector.

Legal Ambiguities: A big source of confusion for taxpayers and regulators alike has been the classification of cryptocurrencies as a commodity, security, or currency, which varies depending on the jurisdiction. In some jurisdictions, cryptocurrencies are treated as commodities; in others, they are securities that trigger different regulatory requirements. There are countries that consider these as currency and may touch on tax implications upon transactions. This lack of uniformity creates confusion for taxpayers trying to comply with tax laws and for regulators working to establish clear frameworks. The changing nature of digital assets calls for a more standardized approach in their classification, which may help to dispel this uncertainty and ensure consistent taxation across the world.



c. Blockchain as a Tool for Taxation

Leveraging Blockchain for Transparency: This would greatly have huge potential in increasing the level of compliance with tax obligations, thanks to the transparent and tamper-proof nature of Blockchain's immutable ledger. Tax authorities could leverage blockchain technology to keep track of events that are taxable in real time, enabling them to identify and report cryptocurrency-related activities on time. Further, blockchain can also automate the calculation of taxes using smart contracts, reducing human error and hence improving efficiency in tax reporting and collection. This might just make the tax process easier, more accurate, transparent, and compliant with the evolving digital assets regulations using blockchain in a new way.

Examples of Global Integration: Countries like Estonia have successfully integrated blockchain into their tax administration systems, simplifying compliance and reducing fraud. Estonia leverages blockchain's transparency and immutability to enhance the efficiency and security of tax reporting. Similarly, Australia and the UK are exploring blockchain for real-time reporting and data validation to improve accuracy and timeliness in tax collection. These advancements demonstrate how blockchain can help governments modernize tax systems, enhance compliance, and minimize fraud in an increasingly digital economy.

Opportunities for India: One of the solutions could be that India adopts blockchain technology in building a centralized platform for reporting cryptocurrency transactions. That would be a transparent, real-time record of digital asset activities with the ability to track and report. Further, integrating blockchain with the existing digital payment systems could considerably enhance the efficiency of tax collection. The government can, therefore, leverage the features of security and automation in blockchain to make transaction tracking more efficient, increase revenue generation, and build a more resilient and effective tax ecosystem for virtual digital assets.

Policy and Regulatory Measures in India Steps Taken by the Government: Several measures have been undertaken by the government of India in order to curb cryptocurrency and criminal activities. Such measures involve compulsorily applying KYC and AML to crypto exchanges for ensuring valid user identification and the tracking of all transactions. India is also in association with various global institutions like the FATF in an attempt to keep local regulations up-to-date and standardized as well as curb illegal finance operations via virtual assets. Moreover, the government has also started pilot projects of Central Bank Digital Currencies (CBDCs), providing a choice of state-guaranteed digital money that enhances control and stability in the fast-evolving digital finance sector.

Gaps in the Current Framework: Certain challenges have been in the way for India's framework of cryptocurrency tax to hinder effectiveness. First, the lack of comprehensive guidelines by the government brings ambiguity on VDA classification to either securities or commodities, further creating confusion in taxpayers and



regulators. There has also been no global coordination by the Indian tax policies on crypto are not in full alignment with international standards resulting in inefficiency in cross-border transactions and investment. Moreover, this 30% taxation on VDA income may throttle the innovation and investment activities in cryptos, as heavy taxation will make the market less attractive for entrepreneurs and investors seeking to tap into the potential of digital assets.

Need for Balanced Regulations: To foster growth while ensuring compliance, it is in the interest of India to take proactive action in regulating the cryptocurrency and blockchain sectors. A very important step would be to clearly define cryptocurrencies and blockchain assets by way of a clearly defined legal framework that could guide both the taxpayer and the regulator. It would remove ambiguity and ensure the consistent application of tax policies. The same can also be provided to blockchain-based startups and innovation, further encouraging investment and innovation in the sector. Thus, India will support the development of new technologies and be well on its way to leading in the global digital economy while keeping the industry compliant with changing regulations.

d. Future Directions and Innovations

Adoption of Central Bank Digital Currency (CBDC): The Reserve Bank of India has taken the first steps in piloting the Digital Rupee, which may see huge gains in the transparency and reduction in dependence on volatile cryptos. The government backing means it is very much stable when compared to any other private digital asset, guaranteeing the digital currency and giving full control with assured security. Also, it can lay a robust regulatory framework for digital transactions and ensure better monitoring of, and compliance with, financial regulations. The RBI released the Digital Rupee to simplify the digital economy and make the financial ecosystem more secure and transparent.

Global Collaboration on Taxation Policies: The government should participate actively in international bodies like the OECD to establish consistent cryptocurrency tax standards. Such harmonization of its tax policies with global best practices would help India address cross-border challenges relating to digital asset transactions that are fostering tax evasion and regulatory arbitrage. Collaboration with OECD will help create a unified framework for the taxation of cryptocurrencies and ensure that the approach in India is in line with international norms, fostering transparency and reducing discrepancies in tax enforcement across borders. This would also improve compliance in India and, therefore, make it stronger in the global digital economy.

Role of Technology in Enforcement: These tax authorities are able to tap into artificial intelligence and blockchain analytics tools in the pursuit of cryptocurrency oversight and regulatory enforcement. Similarly, advanced technologies for analyzing big data on transactions can help to identify patterns regarding non-compliance and flag suspicious activities. Similarly, AI algorithms help in identifying irregularities within the reporting of taxes, while blockchain analytics tools follow transactions taking place on



decentralized networks, enhancing transparency and accountability. These tools can help tax authorities improve their ability to trace digital assets, reduce tax evasion, and ensure more effective compliance with tax laws in the cryptocurrency environment.

Encouraging Research and Development: The government can foster innovation and put India in the leadership position with regard to blockchain technology by encouraging R&D through grants and tax benefits. This will also encourage blockchain startups and research institutions to come up with leading-edge solutions that can help the country build a vibrant ecosystem for blockchain innovation. These initiatives would provide support for technological advancement and attract global talent and investment that would place India at the forefront of blockchain development. Tax incentives in blockchain-related projects make it financially more viable for companies to invest in R&D to grow this new sector.

e. Ethical and Legal Considerations

Privacy vs. Transparency: Finding the right balance between taxpayer privacy and transparency is very important when it comes to cryptocurrency regulation. On the other hand, tax authorities need to ensure that there is compliance and that illegal activities are avoided. However, too much surveillance could undermine user trust and discourage widespread adoption of cryptocurrencies. If people feel their financial privacy is in danger, they might be reluctant to deal in crypto and thus slow down the development of the ecosystem for digital assets. The critical step in creating a safe, compliant, and successful cryptocurrency market is finding a balance between transparency, required by regulation, and the protection of individual privacy.

Legal Ambiguities: This is essential for efficient taxation and regulatory compliance. Conventional tax systems are based on central bodies, but it is hard with decentralized DAO governance. Absence of definitive legal definitions, tax under ownership, distribution of income, and cross-border operations are ambiguous and create difficulty in compliance. The presence of a clear-cut legal definition of DAOs and blockchain entities would instill certainty and guarantee equitable and efficient taxation and stimulate innovation in the blockchain world.

Consumer Protection: A robust regulatory framework should be the utmost priority in protecting investors against misrepresentation and fraud. With the growth of the cryptocurrencies market, the specter of scams, Ponzi schemes, and fraudulent activity looms over investor confidence and market stability. A robust regime should have explicit disclosures, audits, and consumer protection legislation designed to tackle the specific challenges of the crypto landscape. By putting investor protection at the forefront, regulators can establish a secure and reliable environment that promotes wider adoption and sustainable growth in the crypto space.

5. CONCLUSION



The rapid growth of cryptocurrency and blockchain technologies demands a proactive approach towards taxation in India. Addressing such critical issues as anonymity, volatility, and cross-border complexities, India could design a tax regime that ensures not only compliance but also encourages innovation in the space of digital assets. It is, therefore, using blockchain technology to bring transparency, and engaging in global collaborations towards harmonizing tax policies that a sustainable and efficient tax framework would be built. With proactive and forward-thinking policies, India will be well on its way to becoming a global leader in blockchain and cryptocurrency regulation, driving growth while safeguarding the interests of investors and regulators alike.

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