RESEARCH PAPER

The Digital Currency Revolution in India: A Descriptive and Exploratory Analysis of Adoption, Regulation and Market Dynamics

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ABSTRACT
The cryptocurrency market in India is undergoing structural transformation driven by rapid user adoption, regulatory evolution, and integration with global digital finance. By early 2026, the market shifted toward utility assets and diversified participation nationally, with India emerging as leading adopter. This study uses descriptive, exploratory design and secondary data from platforms, institutional reports, and documents to analyse adoption, regulation, investor behaviour, and regional concentration. Key indicators—transactions, asset preferences, and regional distribution—were examined. Findings show concentration in metropolitan hubs: Delhi-NCR leads, followed by Bengaluru and Mumbai, while Tier-2 cities such as Jaipur and Lucknow show accelerating adoption. Bitcoin remains dominant as "digital gold," while smaller cities are decentralising engagement. Regulatory measures like the 30% tax and 1% TDS significantly altered trading behaviour without substantially reducing overall participation. Drivers include technological awareness, financial literacy, regulatory change, and behavioural factors such as FOMO and social influence shaping investor decisions. Participants frame cryptocurrency as an investment alternative and technological innovation amid concerns about volatility, security, and policy uncertainty. Looking ahead, the ecosystem is likely to evolve toward a structured, regulated framework supported by the proposed COINS Act and expansion of the Digital Rupee; long-term stability will depend on regulatory clarity, institutional participation, and investor awareness.

Keywords: Cryptocurrency; Virtual Digital Assets (VDAs); Blockchain Technology; Crypto Adoption; Investor Behaviour; Regulatory Framework; Financial Inclusion; Digital Finance; India; Crypto Market Trends
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1. INTRODUCTION

The emergence of cryptocurrency as a transformative financial instrument has fundamentally disrupted global financial systems, reshaping how individuals, institutions, and governments perceive money, value, and monetary sovereignty. Built on decentralised blockchain technology, cryptocurrencies enable peer-to-peer transactions without the involvement of intermediaries, offering a paradigm shift in financial exchange. From just five million identity-verified crypto users in 2016, the global user base grew to an estimated 653 million by November 2024, reflecting the exponential pace of adoption worldwide (Nakamoto, 2008; Singh & Mehta, 2025). Within this global landscape, India has emerged as one of the most significant and contested arenas for cryptocurrency development, investment, and regulatory debate. India presents a unique case due to its demographic disparities, technological advancements, unbanked population, and evolving regulatory posture— factors that collectively differentiate it from other emerging economies where cryptocurrency guidelines are more stable and clearly defined. In 2024, over 94 million individuals in India invest in cryptocurrencies, with the majority falling under the age of 34, reflecting a digitally native generation's growing appetite for alternative financial instruments. Despite this scale of adoption, India's regulatory framework has remained fragmented, creating an environment of uncertainty that directly shapes investor trust and behaviour (Mishra & Singh, 2025; Kumar & Rani, 2024). India's policy history

with respect to cryptocurrency has been turbulent. In 2018, the Reserve Bank of India (RBI) adopted a stringent stance, prohibiting banks and other regulated entities from facilitating crypto transactions — a decision driven primarily by concerns regarding tax evasion, potential loss of seigniorage income, and risks to fiscal stability posed by decentralised activities. However, in 2020, the Supreme Court of India overturned this ban, setting the stage for a surge in domestic trading and subsequent policy recalibration. By 2024, the Securities and Exchange Board of India (SEBI) proposed a multi-regulator framework for overseeing cryptocurrency activities, indicating a shift towards a more structured regulatory approach (IMPRI Impact and Policy Research Institute, 2024; Mehrotra, 2024). The current tax and compliance structure further underscores this cautious stance. The Finance Act of 2022 introduced a 30% flat tax on profits from Virtual Digital Assets (VDAs) and a 1% tax deducted at source (TDS) on transactions — a policy that substantially curtailed trading volumes while simultaneously legitimising the sector within existing legal frameworks. In March 2023, the Finance Ministry further extended the Prevention of Money Laundering Act (PMLA) to encompass Virtual Digital Assets, mandating all Virtual Asset Service Providers to comply with Anti-Money Laundering (AML) and Know Your Customer (KYC) norms, reflecting India's broader effort to align with the Financial Action Task Force (FATF) Travel Rule and international compliance standards (Ministry of Finance, 2022; Ministry of Finance, 2023).

The academic literature increasingly highlights the tensions inherent in India's approach. The regulatory landscape remains uncertain, with evolving policies and ongoing debates on the legality of cryptocurrencies and their broader economic impact — a context that demands a balanced framework capable of fostering innovation while mitigating systemic risks (Kumari, 2025). From an investor perspective, the cryptocurrency market's high volatility and uncertain government regulations position it as a space where intuitive and emotional decision-making often take centre stage, turning price bubbles into crashes and vice versa (Sharma et al., 2025). Blockchain-based digital assets hold significant promise for advancing financial inclusion in India, particularly among the unbanked population, though realising this potential depends critically on regulatory clarity and digital literacy (Schuetz & Venkatesh, 2020). Looking ahead, the proposed COINS Act, 2025 and the expanding pilot of the RBI's Digital Rupee signal India's intent to move toward a more structured digital finance ecosystem. Post-pandemic daily returns of Indian stock market indices have shown significant cointegration with cryptocurrency over time. suggesting that digital assets are no longer peripheral to mainstream finance but are increasingly embedded within it (Yadav & Sharma, 2024). Technology awareness and financial literacy have been identified as significant moderators of cryptocurrency adoption intention, underscoring the importance of education and awareness campaigns in shaping the future of crypto participation in India (Singh & Kaur, 2023). The global market perceptions of cryptocurrency consumers further confirm that trust, regulation, and awareness are the three pillars determining long-term adoption in emerging economies like India (Murugappan et al., 2023; Verma & Tiwari, 2025). The purpose of this paper is to examine the trajectory of cryptocurrency in India — exploring its regulatory evolution, current policy landscape, investor behaviour, and future prospects. By situating India's experience within the broader global debate on digital finance, this study contributes to the growing body of literature on how large emerging economies can harness the transformative potential of decentralised technologies while safeguarding financial stability, investor protection, and national monetary sovereignty.

2. OBJECTIVES OF THE STUDY

The present study is guided by a set of clearly defined objectives that collectively aim to provide a comprehensive understanding of the current state and future trajectory of cryptocurrency in India. The rapid expansion of the crypto ecosystem, combined with India's evolving but fragmented regulatory environment, necessitates a structured academic inquiry into both the opportunities and challenges that lie ahead (Kumari, 2025). The specific objectives of this study are as follows:

i. To examine the working mechanism of cryptocurrency and the role of blockchain technology as its foundational infrastructure.
ii. To trace the historical evolution of cryptocurrency regulation in India, from the RBI's 2018 banking ban to the present

legislative developments including the proposed COINS Act 2025.

iii. To analyse the current regulatory framework governing Virtual Digital Assets (VDAs) in India, including the taxation structure, AML/KYC compliance requirements, and the roles of the RBI, SEBI, FIU-IND, and the Ministry of Finance.

iv. To assess the patterns of cryptocurrency adoption in India, with particular reference to investor behaviour, demographic trends, and the influence of technology awareness and financial literacy.

v. To evaluate the potential of cryptocurrency and blockchain technology in advancing financial inclusion among India's unbanked and underserved population.

vi. To explore the future prospects of cryptocurrency in India, including the Digital Rupee (CBDC), the COINS Act 2025, and India's alignment with global regulatory standards.

vii. To offer evidence-based policy recommendations that balance innovation with financial stability, investor protection, and monetary sovereignty.

3. METHODOLOGY OF THE STUDY

The study adopts a descriptive and exploratory research design based on secondary data analysis to examine the evolving cryptocurrency ecosystem in India. This design enables a systematic synthesis of existing literature, policy documents, institutional reports, and industry-based evidence in order to understand adoption patterns, regulatory developments, investor behaviour, and market structure (Wickham, 2019; Baldwin et al., 2022). The study relies on secondary sources drawn from cryptocurrency industry platforms and reports, including Chainalysis, CoinSwitch, WazirX, CoinDCX, and other market-based databases, along with regulatory and institutional publications issued by the Financial Intelligence Unit–India (FIU-IND), the Ministry of Finance, and related official bodies. The use of secondary data provides both analytical breadth and cost-efficiency, while allowing the study to examine developments across technological, behavioural, and regulatory dimensions through structured comparison of multiple sources (Johnston, 2014; Corbet et al., 2024). The data period covered in the study extends from April 2016 to April 2026, enabling a longitudinal assessment of cryptocurrency growth, market evolution, and regulatory transition over a ten-year horizon. To interpret the collected evidence, the study employs a qualitative synthesis approach, supported by bibliometric analysis, to identify recurring themes, patterns, and shifts within the Indian cryptocurrency landscape (Saxena & Kumar, 2024; Singh & Mehta, 2025). The selection of secondary sources was guided by specific criteria, including relevance to the Indian cryptocurrency market, credibility of the source, recency of data, and consistency across datasets. Accordingly, only sources that provided verifiable, current, and contextually relevant information were included, while materials lacking direct relevance, reliability, or adequate evidentiary support were excluded from the analysis.

4. WORKING MECHANISM OF CRYPTOCURRENCY

4.1 Blockchain as the Foundational Technology

The working mechanism of cryptocurrency is rooted in blockchain technology — a decentralised, distributed ledger system that records all transactions across a network of computers in a secure and transparent manner. Each block in the chain contains a list of transactions, and once a block is filled, it is cryptographically linked to the previous block, creating an immutable record that cannot be altered without invalidating the entire chain (Basra, 2024). Unlike traditional financial systems where a central authority such as a bank validates and records transactions, blockchain operates on a peer-to-peer network where no single entity exercises control. Information is stored by creating transactions and broadcasting them via a block throughout the network; included in a block along with a nonce, the cryptographic hash of the previous block, and the signature of the coin's owner (Eskandari et al., 2023). This structure ensures that every participant in the network holds an identical and continuously updated copy of the ledger, making tampering virtually impossible.

4.2 Cryptographic Keys and Digital Wallets

At the core of every cryptocurrency transaction lies the use of public-key cryptography, which provides both security and identity verification without relying on any centralised authority.

Cryptocurrency consists of two security approaches -- symmetric and asymmetric. Asymmetric encryption, most commonly used in cryptocurrency exchanges, employs two keys — a public key and a private key — paired with distinct encryption and decryption methods. Although the sender must have a duplicate of the recipient's public key in order to transmit funds or send cryptocurrency, the private key must remain exclusively with the owner (Nowroozi et al., 2023). These keys are stored and managed through digital wallets, which serve as the primary interface through which users initiate, authorise, and receive cryptocurrency transactions. Cryptocurrency wallets facilitate state transitions by securely managing cryptographic keys and authorising transaction execution on the blockchain (Cousaert et al., 2025). The security integrity of a wallet determines whether the user's digital assets remain protected or become vulnerable to theft, making wallet design a critical component of the overall cryptocurrency mechanism.

4.3 Transaction Initiation and Verification

When a cryptocurrency transaction is initiated, it does not immediately get recorded on the blockchain. Instead, it is first broadcast to the peer-to-peer network, where it awaits verification by network participants known as nodes. A consensus mechanism is a fault-tolerant mechanism used in a blockchain to reach an agreement on a single state of the network among distributed nodes — these are protocols that ensure all nodes are synchronised with each other and agree on which transactions are legitimate and are to be added to the blockchain, ensuring the validity and authenticity of all transactions (Aggarwal et al., 2020). The transaction is considered confirmed only after a sufficient number of nodes agree that it is valid and it is permanently written into a new block on the chain. This decentralised verification process eliminates the need for a trusted third party such as a bank or payment gateway, which is one of the most transformative features of cryptocurrency as a financial instrument (Nakamoto, 2008).

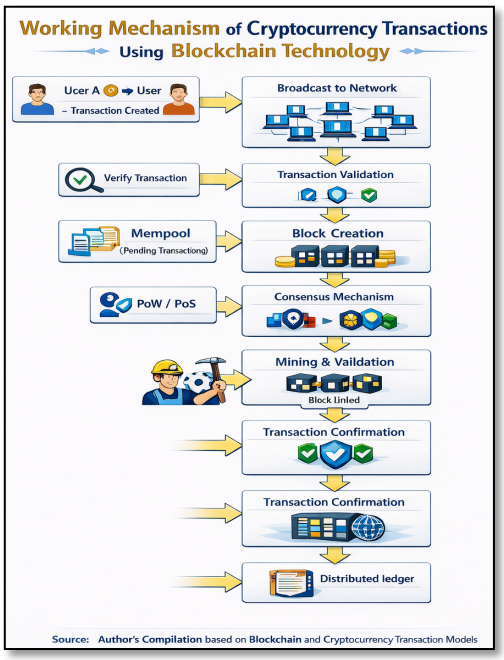


Figure 1. Working Mechanism of Cryptocurrency Transactions Using Blockchain Technology

4.4 Proof of Work and Proof of Stake Consensus Mechanisms

The two most widely used consensus mechanisms in cryptocurrency networks are Proof of Work (PoW) and Proof of Stake (PoS). Both Bitcoin and Ethereum originally utilised the PoW consensus mechanism; Ethereum later transitioned to PoS, where nodes compete to solve complex mathematical puzzles in order to generate and validate blocks, consuming significant processing power. By contrast, the PoS consensus mechanism selects validators based on the amount of cryptocurrency they hold and stake in the network, making it considerably more energy efficient (Prasad et al., 2024). In PoW, the first miner to successfully solve the cryptographic puzzle earns the right to add the next block to the chain and receives a block reward in the form of newly issued cryptocurrency. The consensus process validates transactions and adds blocks while assuring credibility, consistency, decentralised management, and openness, whereas the specific blockchain goals determine which consensus mechanism — PoW or PoS — is most appropriately selected

for a given network (Yusoff et al., 2025). Ethereum's landmark transition from PoW to PoS in September 2022, known as "the Merge," significantly reduced the network's energy consumption and represented a major evolution in how consensus is achieved in large-scale cryptocurrency systems.

4.5 Mining, Block Rewards, and Transaction Fees

Cryptocurrency mining is the computational process through which new transactions are verified and new coins are introduced into circulation. In a Proof of Work system, miners compete to append blocks and mine new currency, with each miner experiencing a success probability proportional to the computational effort expended. The underlying computational work, while energy intensive, provides security to the network by operating under adversarial conditions (Wikipedia, 2025). Upon successfully solving the cryptographic puzzle and adding a valid block to the chain, the miner receives both a block reward — consisting of newly generated cryptocurrency — and transaction fees paid by the users whose transactions are included in that block. When the block is added to the chain and consensus exists regarding its validity, it is shared by all network nodes, giving rise to a unique and verifiable transaction history. For validating the transaction, the miner may receive a transaction fee from a participant in the transaction and a block reward in the form of newly issued crypto assets (PwC, 2023). This incentive structure ensures that miners are economically motivated to maintain the integrity and continuity of the network.

4.6 Immutability, Decentralisation, and Security

The security of cryptocurrency rests on three foundational pillars: immutability, decentralisation, and cryptographic integrity. Once a transaction is recorded and confirmed on the blockchain, it cannot be altered or reversed without redoing the computational work of all subsequent blocks — a practically infeasible task on large networks. Cryptography is central to this decentralised system, maintained by multiple network participants. Blockchain was predominantly designed to be immutable, though the level of security is subject to the type of blockchain being used (Patil et al., 2023). A notable vulnerability, however, is the 51% attack, wherein a single mining entity that controls more than half of the network's total computational power can theoretically manipulate the transaction history. Such attacks allow an attacker potentially to reverse completed transactions or double-spend coins, representing one of the most significant risks inherent in Proof of Work-based cryptocurrency systems (Ji, 2023). Despite this risk, the economic cost of executing a 51% attack on major networks such as Bitcoin makes it practically unviable, serving as a powerful deterrent against malicious actors.

5. AN OVERVIEW OF INDIA'S FIRST CRYPTO INDEX

The IC15 represents India's first cryptocurrency index, introduced by the global cryptocurrency super-application CryptoWire. Listed on the Bitbns exchange, it functions as a rule-based benchmark constructed on the basis of market capitalization, designed to track and evaluate the performance of the 15 most liquid and actively traded cryptocurrencies globally. Collectively, the IC15 captures more than 80% of overall market movements, making it a significant indicator of crypto market trends. The index adopts 1st April 2018 as its base date, with a base value fixed at 10,000. Its governance is overseen by a dedicated committee of academicians, domain experts, and industry practitioners responsible for periodic reviews and quarterly rebalancing. To be included, a cryptocurrency must rank among the top 50 assets in market capitalization and have traded on at least 90% of total trading days. As of 4th April 2026, the index constituents are led by Bitcoin (BTC) and Ethereum (ETH), with prices of $66,939.42 and $2,052.65 and market caps of $1.34 trillion and $247.74 billion, respectively. Other key members include Ripple (XRP) at $1.31 ($80.91B), Binance Coin (BNB) at $590.88 ($80.57B), and Solana (SOL) at $80.25 ($45.97B). The basket also features Dogecoin (DOGE), Cardano (ADA), Avalanche (AVAX), Polkadot (DOT), Chainlink (LINK), Shiba Inu (SHIB), Litecoin (LTC), Bitcoin Cash (BCH), Uniswap (UNI), and Sui (SUI). When compared to the top 15 global cryptocurrencies, the

IC15 specifically excludes stablecoins like Tether (USDT) and USDC to focus on tradable growth assets. This distinction highlights the index's role as a diversified "blue-chip" barometer, providing transparency and a Standardised tool for the Indian digital asset ecosystem. The constituent cryptocurrencies forming part of the IC15 index are presented in the following table.

Table 1. Constituent Coins and Current Market Capitalization of IC15 Index

#	Cryptocurrency	Symbol	Current Price (USD)	Market Capitalization
1	Bitcoin	BTC	$66,939.42	$1.34 Trillion
2	Ethereum	ETH	$2,052.65	$247.74 Billion
3	Ripple	XRP	$1.31	$80.91 Billion
4	Binance Coin	BNB	$590.88	$80.57 Billion
5	Solana	SOL	$80.25	$45.97 Billion
6	Dogecoin	DOGE	$0.09124	$14.02 Billion
7	Cardano	ADA	$0.2454	$8.86 Billion
8	Avalanche	AVAX	$8.88	$3.83 Billion
9	Polkadot	DOT	$1.24	$2.09 Billion
10	Chainlink	LINK	$8.65	$6.29 Billion
11	Shiba Inu	SHIB	$0.0000059	$3.49 Billion
12	Litecoin	LTC	$53.24	$4.10 Billion
13	Bitcoin Cash	BCH	$442.87	$8.86 Billion
14	Uniswap	UNI	$3.14	$2.00 Billion
15	Sui	SUI	$0.8727	$3.45 Billion

Sources: https://coindcx.com/
Note: The current market capitalization has been compiled from https://coindcx.com/as of 4th April, 2026.

While the IC15 index presented in Table 1 excludes stablecoins and focuses on tradable growth assets, a broader perspective is provided in Table 2, which presents the top 15 cryptocurrencies by global market capitalisation as of 4th April 2026—including stablecoins such as Tether (USDT) and USD Coin (USDC)—thereby highlighting IC15's role as a curated 'blue-chip' barometer of actively traded, growth-oriented digital assets." For comparison, Table 2 presents the top 15 cryptocurrencies by global market capitalisation, which includes stablecoins such as USDT and USDC, and assets like TRON that are excluded from the IC15 index due to eligibility criteria.

Table 2. Top 15 cryptocurrencies based on market capitalization in the world

#	Cryptocurrency	Symbol	Current Price (USD)	Market Capitalization
1	Bitcoin	BTC	$66,955.73	$1.34 Trillion
2	Ethereum	ETH	$2,053.60	$248.10 Billion
3	Tether	USDT	$1.00	$184.14 Billion
4	Ripple	XRP	$1.31	$81.02 Billion
5	Binance Coin	BNB	$591.25	$80.68 Billion
6	USDC	USDC	$1.00	$79.63 Billion
7	Solana	SOL	$80.42	$46.08 Billion
8	TRON	TRX	$0.3157	$29.92 Billion
9	Lido Staked Ether	stETH	$2,035.00	$18.85 Billion
10	Dogecoin	DOGE	$0.0913	$14.04 Billion
11	Hyperliquid	HYPE	$35.66	$9.15 Billion
12	UNUS SED LEO	LEO	$10.06	$9.27 Billion
13	Bitcoin Cash	BCH	$442.87	$8.86 Billion
14	Cardano	ADA	$0.2454	$8.86 Billion
15	Chainlink	LINK	$8.65	$6.29 Billion

Sources: https://coindcx.com/
Note: The current market capitalization has been compiled from https://coindcx.com/as of 4th April 2026.

To further examine the performance dynamics of these globally ranked cryptocurrencies, Table 3, presents their historical price movements and growth trends over the period 2016–2026, while Figures 1 and 2 provide a comparative visual analysis of their long-term performance patterns.

Table 3. Historical Price Performance and Growth Analysis of Top 15 Cryptocurrencies in Indian Rupee (INR) — April 2016 to April 2026

To contextualise the performance of the IC15 constituent coins, Table, presents the historical price data for all 15 cryptocurrencies in Indian Rupees (INR) from April 2016 to April 2026, capturing both 10-year and 5-year growth trajectories to reflect long-term investment potential.

#	Cryptocurrency	Symbol	Price (INR) April 2016	Price (INR) April 2021	Price (INR) April 2026	10-Year Growth (%)	5-Year Growth (%)
1	Bitcoin	BTC	₹27,655	₹43,03,556	₹62,11,556	+22,360%	+44.3%
2	Ethereum	ETH	₹680	₹1,44,127	₹1,90,772	+27,955%	+32.4%
3	Ripple	XRP	₹0.40	₹44.60	₹121.87	+30,367%	+173.2%
4	Binance Coin	BNB	*2017	₹24,512	₹ 54,914.70.	N/A	+122.6%
5	Solana	SOL	*2020	₹1,240	₹7,453	N/A	+501.1%
6	Dogecoin	DOGE	₹0.015	₹4.20	₹8.53	+56,766%	+103.1%
7	Cardano	ADA	*2017	₹89.50	₹22.83	N/A	-74.5%
8	Avalanche	AVAX	*2020	₹2,150	₹826	N/A	-61.6%
9	Polkadot	DOT	*2020	₹3,120	₹114	N/A	-96.3%
10	Chainlink	LINK	*2017	₹2,240	₹803	N/A	-64.2%
11	Shiba Inu	SHIB	*2020	₹0.000000004	₹0.00055	N/A	+13,749,900%
12	Litecoin	LTC	₹240	₹16,420	₹4,934	+1,955%	-69.9%
13	Bitcoin Cash	BCH	Forked 2017	₹40,150	₹41,116	N/A	+2.4%
14	Uniswap	UNI	*2020	₹2,180	₹293	N/A	-86.6%
15	Sui	SUI	*2023	N/A	₹81.06	N/A	N/A

Note: * indicates for Launched

Sources: CoinGecko, India Today, Revolut, Yahoo Finance, The following table estimates the long-term price appreciation for the top 15 cryptocurrencies as of 4th April 2026.

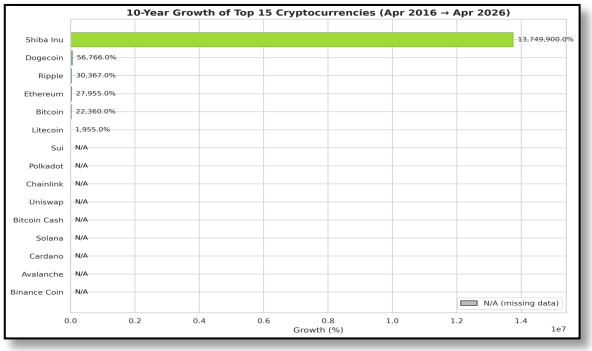
6. OVERVIEW OF THE GLOBAL AND INDIAN CRYPTOCURRENCY EXCHANGE LANDSCAPE (2026)

Cryptocurrency exchanges serve as the essential digital infrastructure for the global $2.3 trillion crypto economy, functioning as marketplaces where users trade assets such as Bitcoin (BTC) and Ethereum (ETH) for other digital currencies or fiat money (CoinMarketCap, 2026). Currently, CoinMarketCap (2026) tracks approximately 252 spot exchanges, which collectively facilitate a massive 24-hour trading volume of roughly $445.42 billion. These platforms are generally classified into Centralized Exchanges (CEX), which act as intermediaries and are owned by private companies, and Decentralized Exchanges (DEX), which allow peer-to-peer trading via smart contracts without a central authority (Corporate Finance Institute, 2026). While CEXs offer high liquidity and user-friendly interfaces, DEXs prioritize transaction anonymity and user custody of private keys (Eicta-IITK, 2026). The global landscape is dominated by a few major players, with Binance maintaining its position as the largest exchange by a significant margin, holding nearly 40% of the market share and processing roughly five times the volume of its nearest competitor (CoinMarketCap, 2026).

Other leading global spot exchanges include Bybit, HTX, Gate, MEXC, OKX, Coinbase, and Kraken, which are ranked based on factors like web traffic, liquidity, and the legitimacy of reported volumes (CoinMarketCap, 2026). In India, the market has matured into a well-regulated hub where the Financial Intelligence Unit (FIU-IND) oversees compliance (Financial Intelligence Unit – India, 2026). Top-rated platforms for Indian users in 2026 include Giottus, CoinDCX, ZebPay, WazirX, and KoinBX, all of which are FIU-registered and offer localized features such as regional language support and seamless INR integration via UPI and bank transfers (ZebPay, 2026). Despite the growth in adoption, the exchange ecosystem faces ongoing challenges related to security and regulation. High-profile historical collapses, such as FTX in 2022, have

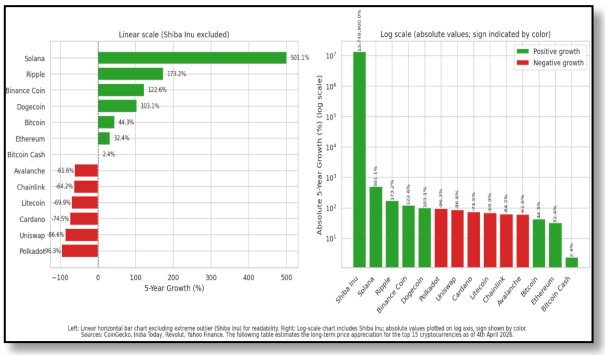
led to increased demands for transparency, prompting major exchanges to adopt Proof of Reserves audits and maintain protection funds like Binance's SAFU or Bitget's $300M+ Protection Fund (Binance, 2026). Investors are increasingly cautioned to verify exchange legitimacy through FIU registration and to utilize security measures like two-factor authentication (2FA) and cold storage for long-term holdings (KoinBX, 2026). As the market continues to evolve, the focus is shifting toward "Universal Exchanges" that bridge the gap between digital assets and traditional finance, offering tools for tax reporting and sophisticated trading strategies (Giottus, 2026).

Figure 1. Comparative Analysis of Cryptocurrency Price Trends and Growth Rates (2016–2026)



Note: The above graph is plotted on a logarithmic scale and the price growth is expressed in Indian rupees (INR).

Figure 2. Returns on top 15 cryptocurrency investments over the past five years



Sources: Note: the above graph is plotted on a 100% stacked line with markers chart.

Source: author's creation by using MS Excel.

Table 4. Top 15 Global Spot Cryptocurrency Exchanges

#	Exchange	24h Trading Volume (USD)	Markets Supported	Key Strength
1	Binance	$3.64 Billion	2,096	Global Liquidity Leader
2	BTCC	$2.68 Billion	597	High Leverage Options
3	BiFinance	$2.94 Billion	179	Emerging Institutional Hub
4	BitMart	$2.14 Billion	1,730	Massive Altcoin Selection
5	CoinUp.io	$6.02 Billion	774	High Volume/Newer Player
6	Bybit	$1.01 Billion	1,209	Advanced Trading Tools
7	HTX	$1.03 Billion	893	Strong Asian Market Presence
8	LBank	$1.18 Billion	1,434	Global Accessibility
9	CoinW	$1.46 Billion	499	User-Friendly Interface
10	Bitget	$593.49 Million	1,243	Social & Copy Trading
11	Gate.io	$726.31 Million	2,561	Diversity of Assets (1,800+)
12	Upbit	$715.45 Million	704	South Korean Leader
13	OKX	$655.53 Million	1,394	Web3 & DeFi Integration
14	Coinbase	$677.13 Million	511	Regulated & Trust-Focused
15	MEXC	$663.58 Million	3,015	Earliest Altcoin Listings

Data compiled from CoinMarketCap and CoinGecko as of April 4, 2026.

The cryptocurrency market has matured into a foundational component of global finance, characterized by massive transaction volumes and institutional-grade growth. The global transaction landscape is increasingly dominated by stablecoins and institutional activity, with transaction values climbing from $668 billion in early 2025 to $1.78 trillion by February 2026 (Payments Dive, 2026). This shift from retail experimentation toward structured, regulated service providers is further evidenced by global crypto transaction volumes exceeding $1 trillion in the first half of 2025 in the U.S. alone (TRM Labs, 2025). While remaining volatile, major digital assets like Bitcoin (BTC) and Ethereum (ETH) have

historically outpaced traditional asset classes. Bitcoin remains a primary "global macro hedge," delivering a compound annual growth rate (CAGR) of 39.50% over the preceding years and a staggering 10-year return of 26,931% (CoinGecko, 2024; VanEck, 2026). During the same period, Ethereum yielded a CAGR of 24.58%, driven by its utility in DeFi and smart contracts (VanEck, 2026). The industry continues to exhibit sustained growth momentum, with the global cryptocurrency market size projected to reach $27.02 billion by 2034, maintaining a CAGR of 15.60% (Fortune Business Insights, 2026). This expansion is supported by a significant decline in market risk, as Bitcoin's Value-at-Risk (VaR) fell by 22.0% by early 2026, signaling a stabilization of volatility (MDPI, 2026). User adoption is also reaching record levels, with total global users expected to hit nearly 994 million by 2026, representing a penetration rate of approximately 12.6% (Technavio, 2026). The historical price performance of major cryptocurrencies presented in Table 3, reflects the extraordinary expansion and volatility of the digital asset market over the past decade. A close examination of the data reveals that early entrants such as Bitcoin, Ethereum, and Ripple have delivered exceptional long-term returns, indicating the strong first-mover advantage and network effects associated with early blockchain adoption. Bitcoin, in particular, has demonstrated a remarkable 10-year growth of over 22,000%, reinforcing its position as a dominant “digital gold” asset and a store of value within the crypto ecosystem. Similarly, Ethereum’s growth trajectory highlights the increasing importance of smart contract functionality and decentralised finance (DeFi) applications, which have significantly contributed to its valuation expansion. Ripple, on the other hand, exhibits one of the highest percentage increases, reflecting its utility in cross-border payment systems and institutional use cases. In contrast, assets such as Dogecoin and Shiba Inu demonstrate extreme growth patterns driven largely by speculative trading, social media influence, and retail investor sentiment rather than fundamental utility. The table also highlights the impact of market cycles on newer cryptocurrencies introduced post-2017, such as Cardano, Polkadot, and Uniswap, many of which show negative five-year growth rates. This indicates the effect of market corrections following the 2021 crypto boom, where inflated valuations were followed by significant declines. Similarly, assets like Avalanche and Chainlink reflect declining trends, emphasising the inherent volatility and risk associated with altcoin investments. Another critical observation is the presence of newly launched assets such as Solana and Sui, for which long-term growth data is unavailable. However, their short-term performance suggests rapid adoption driven by technological advancements, scalability solutions, and growing developer ecosystems. Overall, the analysis underscores that while the cryptocurrency market offers significant long-term return potential, it is characterised by high volatility, speculative behaviour, and uneven performance across assets. The divergence between established cryptocurrencies and emerging tokens reflects differences in technological maturity, market acceptance, and investor confidence. These findings align with existing literature, which highlights that cryptocurrency returns are influenced by innovation cycles, investor sentiment, and macroeconomic conditions. Thus, the table provides a comprehensive overview of the evolving crypto market structure, demonstrating a transition from early-stage exponential growth to a more volatile and segmented market environment, where asset performance increasingly depends on utility, adoption, and regulatory developments.

7. HISTORICAL EVOLUTION OF CRYPTOCURRENCY REGULATION IN INDIA

7.1 The Pre-2018 Era: Unregulated Growth and Early Adoption

The history of cryptocurrency in India begins in the early 2010s, at a time when digital assets were almost entirely absent from the regulatory radar of the Indian government. The first Bitcoin transaction in India took place in 2011, and it was only in 2013 that the digital currency gained widespread attention in the country when Bitcoin reached an all-time high of approximately $1,200, leading to a surge of interest and the establishment of several exchanges and trading platforms — at a time when the regulatory framework was virtually non-existent and the Reserve Bank of India had not yet taken a formal stance on the legality of cryptocurrencies (Vocal Media, 2023). Pioneering exchanges such as BtcxIndia, Unocoin, Coinsecure, Zebpay, and Koinex

emerged during this period, offering Indian users access to cryptocurrency trading and exchange services for the first time (Jani, 2018). Despite the absence of formal regulation, the Reserve Bank of India did not remain entirely silent. The Reserve Bank of India issued its first cautionary press release on December 24, 2013, warning users that virtual currencies including Bitcoin, Litecoin, and Ripple posed financial, legal, and security risks — clarifying that these digital assets were not authorised by any monetary authority in India and that users transacted entirely at their own peril, though crucially no legal action was initiated and the regulatory posture remained precautionary rather than prohibitory (Reserve Bank of India [RBI], 2013). A significant catalyst for early adoption was India's demonetisation policy of November 2016, which withdrew high-denomination currency notes from circulation and created an environment of financial disruption in which digital alternatives including cryptocurrencies attracted considerable new interest (Kaur et al., 2024). In December 2017, both the Reserve Bank of India and the Ministry of Finance issued further press releases cautioning the general public about the dangers of cryptocurrencies, with the Ministry of Finance declaring them akin to Ponzi schemes — yet neither body issued any enforceable legal direction against cryptocurrencies until early 2018 (Centre for Internet and Society, 2020).

7.2 The 2018 RBI Circular: A De Facto Banking Ban

The first decisive regulatory intervention came on April 6, 2018, when the Reserve Bank of India issued a circular that effectively severed the connection between the cryptocurrency industry and the formal Indian banking system. The circular directed all regulated entities — including commercial banks, co-operative banks, payment banks, small finance banks, non-banking financial companies, and payment system providers — not only to refrain from dealing in virtual currencies themselves, but also to stop providing services to any entities that dealt in virtual currencies, with a compliance deadline of three months (Reserve Bank of India [RBI], 2018). The circular cited concerns about money laundering, terrorist financing, tax evasion, potential loss of seigniorage income, and the risks to fiscal stability posed by decentralised digital financial activities as its principal justifications (Bar and Bench, 2025). The impact on the Indian cryptocurrency market was immediate and severe. Leading exchanges such as Zebpay, which had amassed over one million users and processed more than $20 million in monthly transactions, were compelled to suspend Indian operations or relocate overseas, while smaller platforms were forced to shut down entirely, effectively collapsing the domestic market that had developed over the preceding six years (Crypto for Innovation, 2024). The Internet and Mobile Association of India (IAMAI), representing the interests of cryptocurrency businesses and their expanding user base, filed a writ petition before the Supreme Court of India challenging the constitutional validity of the circular on the grounds that it violated the fundamental right to carry on trade and profession guaranteed under Article 19(1)(g) of the Constitution of India (SCC Online, 2026). This petition set the stage for one of the most consequential judicial decisions in the history of Indian fintech regulation (Verma & Tiwari, 2025).

7.3 The 2020 Supreme Court Verdict: Constitutional Restoration

On March 4, 2020, the Supreme Court of India delivered its landmark three-judge bench judgment in Internet and Mobile Association of India v. Reserve Bank of India [(2020) 10 SCC 274], striking down the Reserve Bank of India's 2018 circular as unconstitutional and disproportionate. The Court held that while the Reserve Bank of India had the regulatory authority and competence to regulate virtual currencies, the absolute exclusion of cryptocurrency businesses from the banking system was a disproportionate measure — particularly because the Reserve Bank of India could not produce a modicum of evidence demonstrating that the involvement of crypto exchanges with regulated financial entities had caused any actual, measurable systemic harm

(Supreme Court of India, 2020). Applying the constitutional principle of proportionality, the Court ruled that any restriction on a fundamental right must bear a reasonable nexus to the harm it seeks to prevent and must not be excessive relative to that harm, finding that the 2018 circular failed this test (Chambers and Partners, 2025). The judgment established the crucial legal principle that holding or trading cryptocurrency in India is not illegal, while simultaneously affirming that the government retains the authority to enact legislation imposing restrictions or even prohibition on private cryptocurrency if it chooses to do so through the proper legislative process (Bar and Bench, 2025). The verdict reopened banking channels for cryptocurrency exchanges, restored investor confidence, and triggered a sharp surge in domestic trading volumes, with several new platforms entering the market in the months that followed. However, the Reserve Bank of India's institutional opposition to private cryptocurrency remained firm; former RBI Governor Shaktikanta Das subsequently called for a complete ban on multiple occasions, compared cryptocurrency to gambling, and warned that it could create an unregulated parallel monetary system capable of undermining the central bank's control over monetary policy (Crypto Times, 2026).

7.4 The 2021 Cryptocurrency Bill: Legislative Ambition and Parliamentary Inaction

Following the Supreme Court's ruling, the Indian government signalled its legislative intentions through the introduction of the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 in the Lok Sabha. The proposed legislation pursued two simultaneous objectives: the prohibition of all private cryptocurrencies in India, and the creation of a facilitative legal framework for the Reserve Bank of India to introduce and regulate an official Central Bank Digital Currency (CBDC) (Ministry of Finance, 2021). The bill was listed for parliamentary consideration in the Lok Sabha Winter Session of 2021 but was withdrawn before any substantive debate could take place, and it has not been reintroduced in Parliament since that time (Mehrotra, 2024). The bill's failure to progress through Parliament left India in a prolonged state of regulatory limbo that critics widely characterised as deeply contradictory in nature. On one hand, the government had introduced severe taxation obligations on cryptocurrency transactions through the Finance Act of the following year; on the other hand, it had refused to provide the industry with the legal certainty of a formal regulatory framework, leaving businesses, investors, and regulators all operating under conditions of persistent ambiguity (Kumari, 2025). The Inter-Ministerial Committee (IMC), which had been constituted as early as 2017 to study issues relating to cryptocurrency and recommend regulatory action, had previously in 2019 proposed the Banning of Cryptocurrency and Regulation of Official Digital Currency Bill, 2019, which sought to prohibit mining, generation, holding, selling, dealing, issuance, transfer, and disposal of cryptocurrency — indicating that the government's indecision in 2021 was part of a longer pattern of legislative hesitancy stretching back several years (Chambers and Partners, 2025).

7.5 The Finance Act 2022: Taxation as Indirect Recognition

In the absence of a comprehensive regulatory statute, the Indian government exercised its authority over cryptocurrency through the taxation mechanism in the Union Budget 2022-23. The Finance Act, 2022 introduced two landmark provisions into the Income Tax Act, 1961 that created the first formal statutory recognition of cryptocurrencies as a distinct asset class: Section 115BBH, which imposed a flat 30% tax on all income arising from the transfer of Virtual Digital Assets irrespective of the investor's income bracket or holding period, section 194S, which mandated a 1% Tax Deducted at Source on all cryptocurrency transfers exceeding ₹10,000 in value (Ministry of Finance, 2022). The term "Virtual Digital Asset" was formally defined under Section 2(47A) of the Income Tax Act to encompass any information, code, number, or token generated through cryptographic means, including cryptocurrencies and non-fungible

tokens (NFTs), while explicitly excluding the government's own proposed digital rupee from the scope of the definition. The taxation framework attracted intense criticism from industry participants, investors, and economists alike. The flat 30% rate applied regardless of the holding period of the asset — unlike the preferential long-term capital gains treatment available for equity and other investment instruments — and critically, losses from one virtual digital asset could not be offset against gains from another, nor could they be carried forward to subsequent financial years, making the framework among the most punitive among the most stringent globally for crypto investors (CoinPedia, 2025). The Central Board of Direct Taxes (CBDT) subsequently issued detailed guidance on the reporting requirements, mandating that all VDA holdings and transactions be declared under Schedule VDA in income tax returns — a requirement that applied even to unsold holdings — with non-compliance inviting penalties of up to 200% of the evaded tax or imprisonment under applicable provisions of the Income Tax Act (Finlaw, 2025). Trading volumes on Indian exchanges declined sharply following the budget announcement as retail investors migrated to offshore platforms to avoid the compliance burden (Kumar, 2025).

7.6 The 2023 PMLA Extension: Anti-Money Laundering Framework and FIU-IND Mandate

The year 2023 marked the most significant expansion of India's regulatory engagement with cryptocurrency since the 2018 banking ban, as the Ministry of Finance brought the entire cryptocurrency sector within the ambit of the Prevention of Money Laundering Act, 2002 through a gazette notification dated March 7, 2023. The notification designated all Virtual Digital Asset Service Providers — including cryptocurrency exchanges, wallet providers, custodians, and intermediaries facilitating transfer, administration, or exchange of virtual digital assets — as "reporting entities" under the PMLA, thereby subjecting them to the full suite of AML and KYC obligations that apply to banks and other financial intermediaries (Ministry of Finance, 2023). With this notification, India also began the implementation of the Financial Action Task Force (FATF) Travel Rule, which requires that accurate originator and beneficiary information accompany all virtual asset transfers, as part of a broader effort to align the Indian AML framework with international standards set by the FATF (Sumsub, 2024).The Financial Intelligence Unit of India (FIU-IND) assumed the central enforcement role under the new framework, requiring all Virtual Asset Service Providers to register with it as a precondition for operating legally in India. Domestic exchanges including CoinDCX, CoinSwitch, WazirX, and Zebpay completed their FIU-IND registration in the months following the notification, bringing them within the formal compliance architecture for the first time (Finlaw, 2025). Enforcement attention then shifted to offshore exchanges serving Indian users without compliance. In December 2023, the Financial Intelligence Unit of India issued show-cause notices to nine major offshore cryptocurrency exchanges — including Binance, KuCoin, Huobi, Kraken, Gate.io, Bittrex, Bitstamp, MEXC Global, and Bitfinex — for non-compliance with PMLA provisions, and non-compliant platforms faced URL blocking that effectively cut off access for Indian users (Global Legal Insights, 2025).

7.7 The 2024 Developments: Judicial Escalation, SEBI's Proposal, and Enforcement Actions

The year 2024 witnessed a simultaneous intensification of judicial, regulatory, and enforcement pressure on India's cryptocurrency governance architecture. On the judicial front, the Supreme Court of India, while hearing a bail petition in May 2024 related to cryptocurrency-linked financial crime, orally directed the Central Government to enact comprehensive legislation governing virtual digital assets without further delay, observing from the bench that the prolonged absence of a clear legal framework had created a fertile ground for misuse and that unregulated crypto trading constituted a more sophisticated form of hawala — an analogy that signalled the judiciary's growing impatience with the

executive branch's legislative inaction (Supreme Court of India, 2024). The Delhi High Court separately, in January 2025, sought formal responses from the Reserve Bank of India, SEBI, and the Ministry of Finance on a petition filed by VDA users calling for clear regulatory governance of virtual digital assets (Chambers and Partners, 2025). On the regulatory front, the Securities and Exchange Board of India formally advanced its proposal for a multi-regulator framework for cryptocurrency oversight in 2024, recommending that regulatory responsibilities be distributed among existing institutional bodies according to the nature of the specific digital asset or activity — with SEBI overseeing security-like tokens, the Reserve Bank of India governing stablecoins and CBDC-related matters, and the Financial Intelligence Unit of India continuing its AML enforcement role (IMPRI Impact and Policy Research Institute, 2024). On the enforcement front, the Financial Intelligence Unit of India passed a detailed compliance order against Binance in June 2024, imposing financial penalties for operating without registration and failing to meet KYC and AML obligations under the PMLA (Financial Intelligence Unit of India [FIU-IND], 2024). In August 2024, the Directorate General of GST Intelligence issued a formal show-cause notice to Binance alleging approximately ₹722.43 crore — approximately $85 million — in unpaid goods and services tax on transaction fees collected from Indian users between July 2017 and March 2024, while Bybit Fintech Limited was subsequently fined ₹9.27 crore in January 2025 for similar AML non-compliance (Global Legal Insights, 2025).

7.8 The 2025 Landscape: COINS Act, Digital Rupee Expansion, and Structured Compliance

By 2025, India's cryptocurrency regulatory trajectory had evolved into a landscape defined by expanding compliance infrastructure, a maturing Central Bank Digital Currency programme, judicial recognition of crypto as property, and the most substantive legislative proposal to date. The Madras High Court, hearing an investor protection matter in 2025, recognised cryptocurrency holdings as property for the purpose of granting interim relief — a judicial development that aligned India with legal positions adopted in the United Kingdom, Singapore, and New Zealand, and that analysts described as a significant step toward formal legal characterisation of digital assets (Chambers and Partners, 2025). The most consequential proposed legislative development of 2025 was the Crypto Objectives, Innovation, and National Security (COINS) Act, which proposed the creation of a dedicated Crypto Assets Regulatory Authority (CARA) to centralise oversight, unify the tax and AML rules applicable to virtual digital assets, and establish a formal licensing and classification framework for crypto businesses operating in India (AI Certs, 2025). A June 2025 discussion paper from the Department of Economic Affairs proposed classifying crypto assets into three categories — security, commodity, or currency — as a precursor to the enactment of the COINS Act framework (Giottus, 2025). Simultaneously, the Reserve Bank of India's Digital Rupee programme underwent significant expansion, with the e-Rupee integrated with the Unified Payments Interface to enable instant, traceable retail and wholesale payments, accumulating approximately seven million retail users by early 2026 — though adoption remained a fraction of UPI's daily volumes, reflecting the deep entrenchment of the existing payment infrastructure (Crypto Times, 2026). On the exchange compliance front, over thirty cryptocurrency platforms achieved FIU-IND registration by mid-2025, with Binance — which had been fined and temporarily blocked in 2024 — re-admitted to the Indian market in August 2024 following demonstrated compliance (Giottus, 2025). The Organisation for Economic Co-operation and Development's Crypto-Asset Reporting Framework (CARF), expected to come into force by April 2027, will require automatic cross-border sharing of cryptocurrency transaction data, meaning that even Indian investors holding assets on offshore platforms will be subject to automatic reporting to Indian tax authorities — a

development that is expected to substantially reduce the scope for tax evasion through offshore migration of crypto activity (OECD, 2023). India's participation in the G20 process during its 2023 presidency, during which it led international discussions on a coordinated global cryptocurrency framework and contributed to the International Monetary Fund–Financial Stability Board synthesis paper on crypto regulation, underscored the fundamental tension between India's global regulatory leadership and its continuing domestic legislative inaction (Financial Stability Board [FSB], 2023).

8. REGULATORY AND TAXATION FRAMEWORK FOR CRYPTO / VIRTUAL DIGITAL ASSETS IN INDIA

8.1. Classification of crypto as Virtual Digital Assets (VDAs) under the Income-tax Act, 1961

In India, crypto-assets are not yet comprehensively regulated as legal financial instruments, but they are expressly recognized for tax purposes as "Virtual Digital Assets" (VDAs) under the Income-tax Act, 1961. The statutory definition inserted through section 2(47A) is deliberately broad and covers cryptographically generated tokens and other digital representations of value that can be transferred, stored, or traded electronically, while excluding official sovereign currency forms such as the RBI's CBDC. This approach reflects a policy choice to tax first and regulate later, allowing the State to capture transactions in the absence of a unified substantive crypto law (National Academy of Direct Taxes, 2025; Ministry of Finance, 2026). A key implication of this framework is that India has created a tax-recognition model without conferring legal tender status or full market-legitimacy on crypto-assets. Parliamentary replies in 2025 and 2026 continue to state that crypto assets (VDAs) are currently unregulated in India, even though taxation and AML/CFT controls apply to them (Ministry of Finance, 2025, 2026).

8.2. Taxation structure: 30% flat tax, 1% TDS, and no loss set-off

India's tax regime for VDAs is among the strictest in major economies. Under section 115BBH, gains from the transfer of VDAs are taxed at a flat 30% rate plus applicable surcharge and cess. The law also restricts deductions by allowing only the cost of acquisition and expressly disallows set-off of VDA losses against any other income, as well as carry-forward of such losses to later years. This design indicates a deterrent or sin-tax-style policy rather than neutral capital-gains treatment. In addition, section 194S requires 1% tax deducted at source (TDS) on consideration paid to a resident for transfer of a VDA, effective from 1 July 2022. CBDT's Circular No. 14 of 2022 clarified operational issues such as peer-to-peer transfers, exchange-mediated transactions, and the mechanics of withholding in barter or crypto-to-crypto exchanges. The TDS provision is significant not merely as a revenue tool, but also as a transaction-tracing mechanism that creates an audit trail for a market otherwise characterized by pseudonymity and platform fragmentation (CBDT, 2022; Income Tax Department, n.d.-b). From a policy perspective, this tax structure has been criticized for reducing liquidity and compliance incentives, but it clearly signals the Indian government's intent to monitor crypto activity through the tax system even without enacting a full licensing statute. The distinction between taxability and regulatory legitimacy is therefore central to understanding India's VDA framework (Ministry of Finance, 2025, 2026).

8.3. AML/KYC regulation under the PMLA framework

A major policy shift occurred on 7 March 2023, when the Ministry of Finance issued a notification bringing specified VDA-related activities within the scope of the Prevention of Money Laundering Act, 2002 (PMLA). The notified activities include exchanging VDAs for fiat currencies, exchanging one or more forms of VDAs, transfer of VDAs, safekeeping or administration of VDAs, and participation in financial services related to the offer and sale of VDAs. As a result, VDA service providers became "reporting entities" under the AML/CFT regime and were made subject to

customer due diligence, record-keeping, suspicious transaction reporting, and related compliance obligations (Government of India, 2023). FIU-IND subsequently operationalized these requirements through guidance specific to VDA service providers, and in January 2026 it issued updated AML/CFT Guidelines consolidating registration, governance, principal officer requirements, customer due diligence, sanctions screening, and transaction monitoring expectations for VDA reporting entities. These developments show that India's crypto policy is maturing primarily through the AML compliance channel, even while the broader asset class remains unregulated from an investor-protection or market-structure standpoint (FIU-IND, 2023, 2026).

8.4. FATF Travel Rule implementation

India's PMLA-based VDA framework also aligns with the FATF Travel Rule logic. FATF Recommendation 15 and its interpretive framework require virtual asset service providers to collect, retain, and transmit originator and beneficiary information for relevant virtual asset transfers. FATF's subsequent targeted updates have emphasised persistent weaknesses in global implementation and the need for jurisdictions to ensure effective compliance by VASPs (FATF, 2019/updated; FATF, 2024). FIU-IND's January 2026 guidelines indicate that Indian VDA service providers must obtain and transmit required originator and beneficiary information in connection with VDA transfers and monitor such transfers for suspicious patterns. In substance, this amounts to India's operational adoption of the FATF Travel Rule model through domestic AML/CFT obligations, even though India has not enacted a single standalone "Crypto Travel Rule Act" as some commentators informally suggest (FIU-IND, 2026; FATF, 2024).

8.5. ROLE OF EACH REGULATORY BODY

Table 5. Roles of Regulatory Bodies in India's VDA Governance Framework

Regulator	Mandate	Key Instrument / Regulation	Scope of Oversight
Ministry of Finance (MoF)	Policy formulation and legislative oversight of virtual digital assets (VDAs)	Finance Act, 2022; Budget announcements	Defines VDA classification, taxation framework, and overall regulatory direction
Central Board of Direct Taxes (CBDT)	Administration and enforcement of crypto taxation	CBDT Circular No. 14/2022	Implements 30% tax on VDA income and 1% TDS on transactions
Financial Intelligence Unit – India (FIU-IND)	Anti-Money Laundering (AML) supervision and compliance monitoring	PMLA, 2002 (amended 2023 for VDAs)	Registration, reporting, and monitoring of crypto exchanges and intermediaries
Reserve Bank of India (RBI)	Financial stability and monetary system oversight	RBI advisories; Digital Rupee (CBDC) initiatives	Monitors systemic risks and promotes central bank digital currency (CBDC) as an alternative
Securities and Exchange Board of India (SEBI)	Proposed regulatory oversight for crypto assets (if classified as securities)	Policy proposals and discussion papers	Potential future role in investor protection and market regulation

Note: Compiled from Ministry of Finance (2022), CBDT Circular No. 14/2022, FIU-IND (2023; 2026), FATF (2019; 2024), OECD (2023), and Reuters (2024)

8.5.1 Reserve Bank of India (RBI)

The RBI's role remains central but indirect. Crypto-assets are not recognized by the RBI as money, and the central bank has consistently emphasized risks to monetary sovereignty, financial stability, capital flow management, and consumer protection. At the same time, the RBI has promoted the Digital Rupee (e₹) as India's sovereign alternative to private crypto-assets. RBI's official FAQs describe the digital rupee as a central bank-issued digital form of physical currency, legally anchored and carrying the guarantee of the central bank, thereby sharply distinguishing it from decentralized cryptocurrencies (RBI, n.d.).

Thus, the RBI's policy posture is best understood as caution toward private crypto and support for CBDC innovation. In institutional terms, the RBI shapes the macro-policy narrative and payments-sovereignty perspective, even though AML and tax enforcement for VDA trading sit largely elsewhere in the state apparatus.

8.5.2 Securities and Exchange Board of India (SEBI)

SEBI does not presently have a universally codified mandate over all crypto-assets in India. However, reporting in 2024 indicated that SEBI had proposed to the government that activities involving crypto-assets with characteristics of securities or investment products, including some ICO-like structures, could fall within SEBI's regulatory competence, while other functions should be allocated to other regulators rather than concentrated in a single omnibus crypto regulator. This is important because it points toward a functional, activity-based regulatory perimeter rather than asset-based classification alone (Reuters, 2024). Accordingly, SEBI's role in India is still proposed or potential, not fully legislated. Any scholarly treatment should therefore describe SEBI as a likely securities-market regulator for tokenized or investment-like crypto products, rather than as the current overall crypto regulator.

8.5.3 Financial Intelligence Unit–India (FIU-IND)

FIU-IND is presently the most operationally active crypto-facing regulator in India because VDA service providers are reporting entities under the PMLA framework. FIU-IND registers VDA service providers, prescribes AML/CFT controls, and can impose penalties for non-compliance. Its enforcement activity has included action against offshore and domestic platforms. In official releases, FIU-IND imposed a monetary penalty on Bybit in January 2025 for violations of PMLA obligations. The FIU compliance orders page also records action against platforms including Coinbase India and others, illustrating that enforcement is no longer merely symbolic (PIB, 2025). Therefore, FIU-IND currently serves as the de facto frontline crypto supervisor in India, but only from the AML/CFT perspective. That is narrower than full prudential, market-conduct, or investor-protection supervision.

8.5.4 Central Board of Direct Taxes (CBDT)

CBDT's role is to enforce the tax architecture around VDAs, especially the implementation of section 115BBH and section 194S. Through Circular No. 14 of 2022 and administrative guidance, CBDT clarified withholding obligations, exchange-related arrangements, and compliance procedures. CBDT therefore operates as the tax-compliance arm of India's crypto governance model, complementing FIU-IND's AML oversight (CBDT, 2022).

8.5.5 Ministry of Finance

The Ministry of Finance remains the principal policy-formulating authority for India's crypto stance. It issued the March 2023 PMLA notification, oversees FIU-IND, steers tax policy through the Finance Act process, and has repeatedly informed Parliament that crypto-assets remain unregulated in India and require international coordination for effective regulation because of their inherently borderless character. That makes the Ministry the nodal institution for the current multi-agency but centrally coordinated model (Government of India, 2023; Ministry of Finance, 2025, 2026).

9. ADOPTION & INVESTOR BEHAVIOUR

India remains one of the world's largest crypto markets by user base and one of the most active by grassroots adoption. Triple-A's current open-access country page estimates that 97.5 million Indians, or 7.1% of the population, currently own cryptocurrency (Triple-A, 2026). In parallel, chainalysis placed India at the top of its 2024 Global Crypto Adoption Index (see Table 5), indicating that Indian crypto usage remains very strong even under a relatively restrictive tax and regulatory environment (Chainalysis, 2024). Reuters also reported in February 2025 that India's crypto market was expected to grow from roughly $2.5 billion in 2024 to over $15 billion by 2035, based on market consultancy estimates (Reuters, 2025). Historically, the growth trend has also been strong. UNCTAD reported that 7.3% of Indians owned or used cryptocurrency in 2021, placing India among the

top major economies for crypto ownership (UNCTAD, 2023), while later academic work on India described the country as having one of the world's largest expected crypto user bases (Kumari et al., 2023). "India's position as a global leader in cryptocurrency adoption is formally recognised by the Chainalysis Global Crypto Adoption Index." As presented in Table 5, India ranked first among all nations in 2025, leading across retail, DeFi, and institutional service value — reflecting the scale and diversity of domestic crypto engagement that this section analyses in detail." Beyond the overall adoption figures, the composition of Indian investors' cryptocurrency portfolios reveals distinct asset preferences shaped by risk appetite, market narratives, and regulatory context. Table 6 presents the top 10 cryptocurrencies held by Indian investors as of March 2026, based on weighted data from CoinSwitch, WazirX, and ZebPay, along with the key driver behind each asset's prominence in Indian portfolios." As Table 7 illustrates, Bitcoin continues to dominate as the primary store of value, while the presence of meme coins such as Dogecoin and Shiba Inu among the top holdings reflects the strong influence of social sentiment and FOMO-driven behaviour discussed in section 9.6.

9.1. Demographic profile of Indian crypto investors

As shown in Table 6, India ranks among the leading countries in global cryptocurrency adoption, reflecting strong participation across retail investors and increasing engagement with digital financial platforms. The demographic profile of Indian crypto investors is consistently described as young, digitally engaged, and education-driven. Recent India-focused studies show that crypto adoption is concentrated especially among Gen Z and Millennials, while a 2025 India study on Gen Z investors in Bengaluru found that the sample was mainly composed of young, educated men, with investment decisions driven more by knowledge, risk-return perceptions, and regulation than by basic demographic variables such as gender or marital status (Kumar et al., 2025). Industry surveys point in the same direction. Mudrex's 2024 survey reported that around 63% of respondents aged 20–35 invested in crypto (Mudrex, 2024), and it also found high participation among startup employees, suggesting that crypto ownership in India is closely tied to digital employment ecosystems and higher exposure to fintech culture. Reuters' 2025 reporting similarly highlighted that retail trading is increasingly visible in smaller cities and among younger Indians looking for additional income opportunities (Reuters, 2025).

Table 6. Top 5 ranked countries in adopting cryptocurrency as per Chainalysis Global Crypto Adoption Index

2025 Rank	Country	Primary Adoption Driver
1	India	Leads across retail, DeFi, and institutional service value.
2	U.S	Significant jump from 4th in 2024, driven by spot Bitcoin ETFs
3	Pakistan	High usage for remittances and as a hedge against inflation.
4	Vietnam	Strong foundations in gaming/NFTs and P2P trading.
5	Brazil	Largest market in Latin America, showing balanced retail and institutional growth.
Note: the above table is just an abstract of the report published by the Chainalysis. For a complete report refer to the source: https://www.chainalysis.com/blog/2025-global-crypto-adoption-index/		

9.2. Factors driving adoption: awareness, literacy, FOMO, and social influence

A growing body of Indian research shows that technology awareness, financial literacy, trust, and social influence are major drivers of crypto adoption. Using Indian survey data and structural equation modelling, found that user intention to adopt cryptocurrency was shaped directly by performance expectancy, social influence, and trust, while technology awareness and financial literacy were central success factors in explaining adoption readiness (Kumari et al., 2023). Subsequent India-focused work deepened this picture. Kala and Chaubey (2023) found that social influence, effort expectancy, and perceived trust significantly drive cryptocurrency adoption and continuance intention among Indians (Kala & Chaubey, 2023), while Prasad et al. (2025) found that FOMO not only had a positive effect on crypto adoption intentions but also mediated the link between adoption intention and actual investment behaviour

among Indian Gen Z and Millennial investors (Prasad et al., 2025). Gupta et al. (2025) likewise showed that, in an extended UTAUT framework for India, perceived trust, price value, and social influence positively influenced intention to use cryptocurrency (Gupta et al., 2025).The recent Gen Z study from Bengaluru adds a further layer: knowledge and awareness had the strongest positive effect, followed by regulatory clarity and risk-return perceptions (Kumar et al., 2025). Together, these findings suggest that Indian crypto adoption is not driven by only speculation.

Table 7. Top 10 Cryptocurrencies held by Indian Investors

Rank	Cryptocurrency	Holding Narrative	Key March 2026 Driver
1	Bitcoin (BTC)	Digital Gold	Core portfolio anchor; 8.1% total allocation.
2	Dogecoin (DOGE)	High-Beta Retail	Top-held meme coin; massive base in Tier-2/3 cities.
3	Ethereum (ETH)	Web3 Infrastructure	Backbone of DeFi; boosted by "Glamsterdam" upgrades.
4	Shiba Inu (SHIB)	Community Utility	Strong retail loyalty; 4.5% total holding share.
5	Ripple (XRP)	Payments/Remittance	Large jump in 2026 due to cross-border utility.
6	Cardano (ADA)	Sustainable Layer-1	Favoured for research-driven, long-term growth.
7	Polygon (POL)	Indian Innovation	Primary L2 scaling choice; strong local brand trust.
8	Solana (SOL)	Performance Utility	High trading volume via the "Alpenglow" protocol.
9	Chainlink (LINK)	Web3 Infrastructure	Critical for RWA (Real World Asset) tokenization.
10	Pepe (PEPE)	Emerging Sentiment	New entry in top 10; replaces older utility tokens.

Based on weighted data from the CoinSwitch 2025 Annual Report, WazirX March 2026 Analysis, and ZebPay Market Insights : Sources: https://coinswitch.co/switch/crypto/up-leads-indias-crypto-boom-as-bharat-redefines-the-market-coinswitch-annual-report-overtaking%20Dogecoin%20(DOGE).

9.3. Factors inhibiting adoption: regulation, tax, volatility, and awareness gaps

The same literature also identifies strong inhibitors. Indian studies repeatedly point to perceived risk, regulatory uncertainty, and weak investor understanding as significant barriers. Kala and Chaubey (2023) reported a significant negative relationship between perceived risk and cryptocurrency adoption among Indian users (Kala & Chaubey, 2023). Prasad et al. (2025) similarly found that perceived risk and the legal/regulatory environment materially shape adoption intentions (Prasad et al., 2025). Gupta et al. (2025) also found that perceived risk exerts a significant adverse effect on intention to use cryptocurrency in India (Gupta et al., 2025). Regulatory uncertainty also appears to discourage wider adoption beyond early enthusiasts. The 2025 Bengaluru Gen Z study concluded that clearer regulations, better financial education, and improved risk communication are essential for more responsible and confident participation (Kumar et al., 2025). This matters because the Indian market is highly retail-led: when regulation is ambiguous, adoption tends to remain sentiment-driven and episodic rather than institutionally anchored.

Table 8. Top 10 Cities for Crypto Investment in India

Rank	City	Investment Share	Notable Characteristic
1	Delhi-NCR	19.3% – 20.1%	The undisputed "Crypto Capital" of India for four consecutive years.
2	Bengaluru	8.9% – 9.6%	Known for high institutional and developer-led adoption.
3	Mumbai	6.5% – 7.0%	Leads specifically in "Blue-Chip" (BTC/ETH) long-term holdings.
4	Pune	~3.5% – 4.0%	Boasts the highest percentage of profitable portfolios (86% in green).
5	Hyderabad	~4.6%	Leads the country in Large-Cap asset allocations.
6	Jaipur	~3.3%	The top-ranked Tier-2 city; leads in Small-Cap portfolio diversity.

7	Lucknow	~2.4% – 3.0%	Key driver behind Uttar Pradesh becoming India's #1 crypto state.
8	Thane	~2.6%	A major satellite hub contributing to Maharashtra's high adoption.
9	Kolkata	~2.1% – 3.2%	Highest percentage of female crypto participants in the country.
10	Patna	~2.6%	Dominates Mid-Cap asset allocations among retail investors.
According to the latest data from CoinSwitch's Q3 2025 Report and subsequent 2026 market analyses, the rankings are: https://coinswitch.co/switch/crypto/india-crypto-investment-trends-q3-2025/			

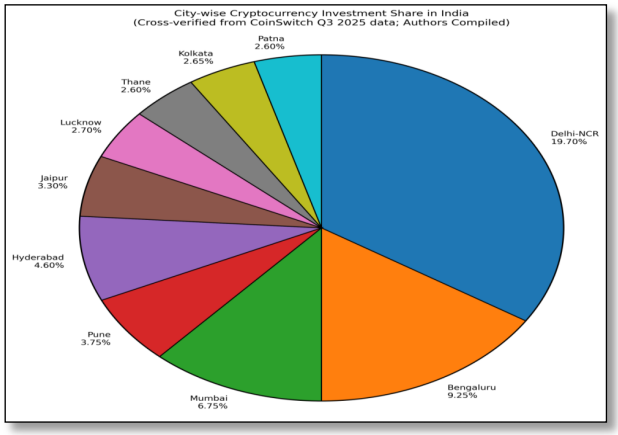


Figure 4. Top Indian Cities by Crypto Investment Share (2025–2026)

The regional distribution of cryptocurrency investments, as presented in Table 8 and illustrated in Figure 4, highlights a strong concentration in metropolitan cities such as Delhi-NCR, Bengaluru, and Mumbai, while emerging participation from Tier-2 cities indicates a gradual decentralisation of crypto adoption across India.

9.4. Role of TAM and UTAUT in explaining adoption behaviour

Technology acceptance models have become central to explaining why Indians adopt or avoid cryptocurrency. Kumari et al. (2023) draw on constructs closely associated with technology acceptance theory and show that adoption intention is significantly linked to performance expectancy, social influence, and trust-related variables (Kumari et al., 2023). Kala and Chaubey (2023) explicitly integrate the extended UTAUT framework with the Information System Success Model to explain adoption and continuance intention in India (Kala & Chaubey, 2023). Gupta et al. (2025) further extend UTAUT by adding price value, trust, perceived risk, and government regulation, demonstrating that classic technology-acceptance models remain useful but need adaptation for highly uncertain financial technologies such as crypto (Gupta et al., 2025). In analytical terms, TAM and UTAUT help explain crypto adoption in India because crypto is both a technology product and a speculative financial asset. Ease of use, usefulness, and social influence remain important, but they interact with financial concepts such as trust, regulation, and risk-return expectations more strongly than in ordinary digital payment adoption. Recent Indian studies therefore support an extended TAM/UTAUT approach rather than a basic one.

9.5. Impact of the 30% tax and 1% TDS on trading volumes and retail participation

Evidence on the impact of India's crypto tax regime is fairly consistent, but much of it comes from industry data and reporting rather than peer-reviewed causal studies. CoinSwitch argued in 2023 that the 1% TDS reduced liquidity and incentivised users to move from KYC-compliant domestic exchanges to offshore or grey-market venues (CoinSwitch, 2023), because the tax effectively locks up capital at each sell-side transaction. Reuters reported in 2025 that, despite the tough tax regime, crypto trading volumes on major Indian exchanges had doubled to $1.9 billion in the October–December quarter, driven especially by smaller-city retail traders (Reuters, 2025). Together, these sources suggest a two-part effect: the tax regime likely suppressed compliant domestic activity in the short run, but did not eliminate retail demand, which adapted through offshore migration and later partial recovery in trading. That interpretation is also consistent with India's continuing top rank in the Chainalysis 2024 adoption index (Chainalysis, 2024). In other

words, the 30% tax and 1% TDS appear to have changed where and how Indians trade more than whether they participate in crypto at all. This is a critical distinction for future research on compliance, market migration, and retail protection.

9.6. Behavioural biases of Indian investors: overconfidence, availability bias, and herd mentality

Recent India-focused research shows that behavioural biases are highly relevant in crypto investment decisions. Sahu et al. (2025) examined Indian retail investors and found that crypto investment behaviour is meaningfully shaped by psychological and heuristic biases, reinforcing the idea that cryptocurrency markets attract not only informed digital adopters but also emotionally reactive retail participants (Sahu et al., 2025). The Indian literature has also increasingly linked FOMO and herd-like behaviour with young investors' crypto participation. Kala et al. (2023) found that FOMO mediates cryptocurrency investment behaviour among young Indians (Kala et al., 2023), while Prasad et al. (2025) found that FOMO both mediates and moderates the relationship between crypto adoption intentions and actual investment behaviour (Prasad et al., 2025). This indicates that adoption among Indian youth is not purely based on utility or literacy; it is also shaped by the fear of missing rapid gains observed in peers or online communities. Although availability bias is discussed less directly in the India-specific empirical studies than FOMO and herding, the broader behavioural pattern is clear: repeated exposure through social media, peer narratives, and price headlines likely makes crypto appear more attractive and more cognitively available than its fundamentals justify.

9.7. Investor sentiment and risk perception

Investor sentiment and risk perception are now central to understanding crypto behaviour in India. India-specific studies show that perceived risk is a statistically important variable in both adoption and investment behaviour. Kala and Chaubey (2023) found perceived risk to be a deterrent to adoption (Kala & Chaubey, 2023), while the 2025 Gen Z India study found that perceived risk and return significantly shape the financial implications of crypto investment decisions (Kumar et al., 2025). Prasad et al. (2025) also identified perceived risk and regulatory concerns as significant components of adoption intention (Prasad et al., 2025). At the same time, broader crypto research continues to show that sentiment can meaningfully affect returns and trading dynamics, and that crypto investors often interpret regulatory warnings selectively rather than conservatively (Sobolev & Kallinterakis, 2024). For India, this means sentiment and risk perception do not move in a simple negative direction: warnings and volatility may deter some investors, but for others they coexist with optimism, curiosity, and speculative excitement.

10. FUTURE PROSPECTS OF CRYPTOCURRENCY IN INDIA

The future trajectory of cryptocurrency in India is increasingly shaped by evolving regulatory, institutional, and technological developments. Proposed legislative initiatives such as the COINS Act 2025 aim to establish a structured framework for asset classification, licensing requirements, and investor protection, although specific details remain unclear (CXOtoday, 2025). Simultaneously, the expansion of the Digital Rupee (e₹) through retail and wholesale CBDC pilots, along with its integration with UPI infrastructure, reflects a strong institutional push towards digital currency adoption (Reserve Bank of India, 2026; Press Information Bureau, 2026). Regulatory sandboxes introduced by the Reserve Bank of India and SEBI further provide controlled environments to test innovations related to DeFi, NFTs, and smart contracts, although their specific application to these domains is not fully defined (Reserve Bank of India, 2019; SEBI, 2021). At the global level, frameworks such as token classification systems distinguishing utility, security, and payment tokens, along with alignment to G20 recommendations and the OECD's Crypto-Asset Reporting Framework (CARF), are influencing India's regulatory direction (FSB, 2023; IOSCO, 2023; European Union, 2023; FSB & IMF, 2024; OECD, 2022). Additionally, issues related to offshore exchange compliance, re-entry into the Indian market, and adherence to international

standards such as FATF guidelines are becoming increasingly significant (Press Information Bureau, 2023; Parliament of India, 2026; FATF, 2025). The growth of India's Web3 ecosystem and blockchain startups further highlights the expanding innovation landscape, although empirical documentation remains limited (KPMG, 2024). Emerging research also indicates growing integration between cryptocurrency markets and traditional financial systems, with evidence of cointegration between Ethereum and Indian stock market indices such as the Nifty, particularly in the post-pandemic period (Bose, 2024). Institutional investment prospects and foreign capital inflows are also expected to shape market dynamics, supported by global policy coordination efforts (FSB & IMF, 2024; Parliament of India, 2025). From an environmental perspective, the transition from Proof-of-Work (PoW) to Proof-of-Stake (PoS) consensus mechanisms represents a significant advancement in energy efficiency, with empirical studies reporting substantial reductions in energy consumption following such transitions (Kapengut & Mizrach, 2023). Overall, the most credible indicators of future prospects in India are currently institutional developments, particularly CBDC implementation and Digital Public Infrastructure (DPI) evolution, rather than a fully defined regulatory framework for private cryptocurrencies. The Reserve Bank of India's positioning of the Digital Rupee as interoperable with UPI and capable of supporting programmable financial applications underscores its potential role in the future financial ecosystem (Reserve Bank of India, 2026). Government initiatives such as programmable CBDC pilots and offline transaction capabilities further aim to address inclusion barriers such as connectivity limitations and inefficiencies in targeted benefit delivery (Press Information Bureau, 2026). At the same time, global regulatory coordination has intensified following market disruptions, with the IMF-FSB roadmap emphasising activity-based regulation, cross-border cooperation, and improved transparency (FSB & IMF, 2024). The OECD's CARF framework further strengthens tax transparency by enabling automatic exchange of crypto-asset transaction data (OECD, 2022). Should India adopt a comprehensive classification and licensing regime, it is likely to align with international models such as IOSCO recommendations and the European Union's MiCA framework, focusing on investor protection and market integrity (IOSCO, 2023; European Union, 2023).

11. POLICY RECOMMENDATIONS

Recommendation 1: Enact a Unified Cryptocurrency Regulatory Framework

India should introduce a comprehensive and codified legal framework for virtual digital assets (VDAs) to reduce regulatory ambiguity and jurisdictional overlap. A unified approach, similar to global best practices, would enhance market stability, investor confidence, and institutional participation (FSB & IMF, 2024; EU MiCA, 2023).

Recommendation 2: Establish Clear Classification of Crypto-assets

A formal classification system distinguishing between payment tokens, utility tokens, and security tokens is essential for appropriate regulatory treatment. This would enable clearer jurisdictional roles for regulators such as RBI, SEBI, and FIU-IND (IOSCO, 2023).

Recommendation 3: Rationalise the Taxation Framework

The current taxation regime (30% tax and 1% TDS) should be reviewed to ensure it does not discourage participation or drive transactions underground. A balanced tax structure can improve compliance while supporting sustainable market growth (CBDT, 2022; Esya Centre, 2023).

Recommendation 4: Strengthen Investor Protection Mechanisms

Regulatory frameworks should mandate disclosures, risk warnings, grievance redressal systems, and exchange-level safeguards to protect retail investors. This is critical in reducing fraud, misinformation, and speculative excesses in the market (IOSCO, 2023).

Recommendation 5: Promote Financial and Digital Literacy

Targeted awareness programs should be implemented to educate investors on cryptocurrency risks, volatility, and responsible investment practices. Improved financial literacy can mitigate behavioural biases such as FOMO and herd behaviour (OECD, 2022).

Recommendation 6: Develop Regulatory Sandboxes for Innovation

Regulatory sandboxes should be expanded to allow controlled experimentation with blockchain-based financial services and crypto innovations. This will support fintech growth while ensuring compliance with regulatory standards (RBI, 2026).

Recommendation 7: Enhance International Regulatory Cooperation

India should actively collaborate with global bodies such as FATF, FSB, and G20 to align its regulatory framework with international standards. This will help address cross-border risks, illicit finance, and regulatory arbitrage (FATF, 2024; FSB & IMF, 2024).

Recommendation 8: Ensure Coexistence of CBDC and Cryptocurrencies

The development of the Digital Rupee (CBDC) should complement rather than replace private cryptocurrencies. A balanced coexistence framework can enhance financial inclusion while maintaining monetary stability (RBI, 2026).

Recommendation 9: Build Institutional Capacity Across Regulators

Capacity building within regulatory bodies such as RBI, SEBI, and FIU-IND is essential to effectively monitor and supervise the evolving crypto ecosystem. This includes technological upgrades, training, and inter-agency coordination (FSB & IMF, 2024).

Recommendation 10: Strengthen Digital Infrastructure and User Accessibility

Improving internet connectivity, digital payment infrastructure, and access to secure platforms will support broader adoption, especially in Tier-2 and Tier-3 regions. This will enable inclusive growth of the cryptocurrency ecosystem (OECD, 2022).

12. LIMITATIONS OF THE STUDY

The study has several limitations; reliance on secondary data limits the ability to capture real-time behavioural shifts and micro-level investor patterns, while rapid regulatory changes may affect the temporal validity of findings (Berchtold et al., 2022). In addition, the study is constrained by the availability and consistency of secondary data across different sources, which may lead to variations in reported figures and interpretations. The absence of primary data restricts the ability to validate investor perceptions, motivations, and decision-making behaviour at an individual level, thereby limiting behavioural depth. Moreover, the study does not account for informal or unreported cryptocurrency transactions, which may lead to an underestimation of actual market participation, particularly in emerging and semi-urban regions. Finally, the rapidly evolving nature of cryptocurrency technologies and policy frameworks implies that the findings may have limited generalisability over time, as new regulatory interventions, technological innovations, or market disruptions can significantly alter the dynamics of the ecosystem.

CONCLUSION

The emergence of cryptocurrency has fundamentally transformed the financial landscape, redefining traditional notions of money, investment, and financial intermediation. Within this global shift, India has evolved as a dynamic participant, characterised by rapid adoption, a digitally active population, and an evolving regulatory environment. The findings indicate that cryptocurrency adoption is no longer confined to metropolitan elites but is expanding across diverse demographic and geographic segments, reflecting the gradual democratisation of digital finance. While major urban centres such as Delhi-NCR, Bengaluru, and Mumbai continue to dominate investment activity, increasing participation from Tier-2 cities signals a decentralisation of crypto engagement. Investor behaviour is shaped by financial literacy, technological awareness, perceived risk, and behavioural biases such as herding and fear of missing out, contributing to both growth and volatility. At the same time, regulatory measures, including the 30% tax and 1% TDS, have influenced trading patterns without significantly reducing participation, while the absence of a unified regulatory framework continues to create uncertainty. Emerging initiatives such as the Digital Rupee and the proposed COINS Act indicate a transition towards a structured and hybrid financial ecosystem where private cryptocurrencies and state-backed digital currencies coexist. Despite its potential for financial innovation, efficiency, and inclusion, challenges related to volatility, security, regulatory ambiguity, and digital literacy persist. Overall, the future trajectory of cryptocurrency in India will depend on achieving a balance between innovation and regulation through a clear policy framework, stronger institutional participation, and enhanced investor awareness. However, the study is limited by its reliance on secondary data and the rapidly evolving regulatory environment, which may affect the temporal relevance of findings. Future research should focus on primary data from retail investors, particularly in Tier-2 and Tier-3 regions, along with longitudinal and cross-country analyses to better understand emerging market dynamics and inform policy development.

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CONFLICT OF INTEREST

The author declares that there is **no conflict of interest** regarding the publication of this paper. The research has been conducted independently, and there are no financial, personal, or institutional relationships that could have influenced the outcomes of the study.

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- The author retains responsibility for the accuracy and integrity of the content presented in this paper.

Credit Author Contribution Statement

Dr. Manjunath Awalakki: Conceptualization; Methodology; Formal analysis; Investigation; Data curation; Writing – original draft; Writing – review & editing; Visualization; Supervision.

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