iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 12 **Issue:** XII **Month of publication:** Dec 2024

DOI:

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Conference 'Technology and Knowledge Based Entrepreneur for Sustainable Industrial Development', held at Sridevi Women's Engineering College, Dec 2024

A Study on Cryptocurrency Stability on Indian Markets

Mr. B Sudhakar Reddy[1], Neha Kaliwala[2]
[1]*Associate Professor*, [2]*MBA II Year, Sridevi Women's Engineering College, Hyderabad*

Abstract: ***In the present scenario cryptocurrency market pay path to accelerating growth globally, with India emerging as a significant player in terms of adoption and transaction volumes. This study examines the stability of cryptocurrencies in the Indian market by analyzing key factors such as a regulatory development, market dynamics, investor sentiment and technological infrastructure. India's regulatory environment has been a major source of volatility due to fluctuating policies, including the supreme courts 2020 reversal of the crypto banking ban and the subsequent imposition of a 30% tax on crypto transactions in 2022. The study also investigates market adoption trends, highlighting a growing interest in digital assets despite regulatory uncertainty. The Indian markets unique characteristics, such as a tech savvy young population, rapid digital payments adoption, and concerns over the volatility and risk of cryptocurrencies, shape the stability of crypto assets. Through a combination of qualitative and quantitative analyses, this study provides insights into the factors influencing the stability of cryptocurrencies in the Indian and their potential future trajectory.***

Keywords: Cryptocurrency stability, Regulatory Framework, Cryptocurrency Adoption

I. INTRODUCTION

Cryptocurrency first entered the Indian market in the early 2010s, coinciding with the global rise of bitcoin. Initially, cryptocurrency attracted only a niche group of tech savvy individuals, who saw digital currencies as an innovation capable of transforming financial systems. With bitcoin growing popularity, the first Indian cryptocurrency exchanges, such as Uno coin and Zeb pay, began operating, providing platforms for Indian users to trade and invest in digital assets. At this stage, the market was small, and few Indians were aware of the potential of cryptocurrency.

As awareness grew, so did the interest, and between 2013 and 2017, the market saw steady growth. However, the Reserve Bank of India (RBI) quickly issued warnings, highlighting concerns over cryptocurrencies high volatility, lack of regulation, and potential misuse. In 2013 the RBI released its first advisory, cautioning the public about the risks of digital currencies, marking the beginning of regulatory scrutiny. Despite this, investor interest surged, especially with the rise of bitcoins value and the emergence of alternative cryptocurrencies.

The period from 2017 and 2018 marked a boom for cryptocurrency in India, a growing number of Indians began investing. However, the surge in popularity led to increased government concerns about money laundering, fraud and the lack of investor protections.in April 2018, the RBI took action, barring banks from offering services to cryptocurrency businesses, effectively cutting off the financial support system that exchanges depended on. This regulatory move had a significant impact on the industry, forcing some exchanges to close and others to find alternative solutions, including shifting operations overseas.

In response, crypto advocates and exchanges challenged the RBI's decision in the supreme court of India.in march 2020, the supreme court ruled in favor of lifting the ban, deeming the RBI's restrictions "disproportionate". This landmark judgement reignited India's crypto market, leading to surge in trading volumes and increased interest from both retail and institutional investors. The decision was a turning point, not only boosting confidence but also sparking wider discussions on the need for clear and supportive regulations for digital assets. The history of cryptocurrency in India highlights the challenges and opportunities in building a secure, innovative and inclusive financial ecosystem while navigating regulatory uncertainties.

II. OBJECTIVES

1) To understand the impact of Indian regulatory developments on cryptocurrency stability.
2) To understand market dynamics and adoption trends influence crypto stability in India.
3) To explore the influence of India's technological infrastructure on cryptocurrency adoption.

©IJRASET: All Rights are Reserved

III. REVIEW OF LITERATURE

1) Nakamoto (2008)

In the foundational paper on bitcoin, Nakamoto introduced cryptocurrency as a decentralized digital currency, advocating for its independence from traditional financial systems. Although the paper did not directly address market stability, Nakamoto's ideas laid the groundwork for understanding how decentralized financial assets could function without institutional backing, a concept with

2) Narayanan et al. (2016)

Narayanan and colleagues provided an in-depth technical analysis of blockchain and decentralization. Their work emphasized the volatility cryptocurrency markets, suggesting that factors such as user adoption and regulatory measures could impact stability – factors that are particularly relevant in the Indian context, given the evolving regulatory landscape.

3) Bouri et al. (2017)

Bouri and his team analyzed the role of bitcoin as a hedge or safe haven during periods of market distress. They found that while bitcoin can provide a hedge in certain contexts, it remains highly volatile and susceptible to external shocks. This volatility raises questions about its stability in the Indian markets, where cryptocurrency is still seen as a high-risk asset.

4) Corbet et al. (2019)

Corbet and colleagues assessed cryptocurrencies impact on traditional markets and concluded that cryptocurrencies behave more like speculative assets than stable currencies. Their work is relevant to India, it suggests that cryptocurrencies may not yet function as a stable store of value, particularly in economies with fluctuating regulatory environments.

5) Baek and Elbeck (2015)

Baek and Elbeck focused on the determinants of cryptocurrency volatility, noting that speculative trading and regulatory actions are significant factors. This especially pertinent to the Indian context, where speculative interest has driven crypto market surges, but regulatory ambiguity has also led to severe downturns.

6) Cheng and Yen (2019)

Cheng and Yen examined the influence of global and domestic factors on cryptocurrency adoption in emerging economies. They noted that in countries like India, factors such as youth demographics, digital literacy and economic disparity drive crypto adoption but also contribute to its volatility due to lack of formal investor education and market safeguards.

IV. RESEARCH METHODOLOGY

The research methodology for "A Study on Cryptocurrency Stability in Indian Markets" employs a mixed – methods approach, integrating both quantitative and qualitative methods to gain a comprehensive understanding of cryptocurrency stability. Data collection includes quantitative data gathered from major Indian cryptocurrency exchanges, focusing on transaction volumes, price volatility and market capitalization. Qualitative data is sourced from regulatory documents, news articles and surveys. The study conducts a regulatory impact analysis, examining significant events such as the Supreme Court's 2020 ruling and the 2022 cryptocurrency tax to assess their influence on market behavior and stability.

V. DATA ANALYSIS & INTERPRETATION

1) Null hypothesis: There is no significant change in cryptocurrency stability on Indian markets.
2) Alternative hypothesis: There is significant change in cryptocurrency stability on Indian markets.

A. Interpretation

This data analysis shows the results of a survey and an ANOVA (analysis of variance) statistical test.
Respondent data: Below the questions, a table contains responses 53 participants (one row per respondent). The respondents seem to be rated on a scale (e.g.,1 to 5)
Statistical analysis: The right- handed side contains the ANOVA summary to analyze whether the means of the responses across the six questions differ significantly.

B. Summary Table

Groups: correspondent to the question (Q1 to Q6)

Count: Number of respondents per question (53 for all groups)

Anova: Single Factor

SUMMARY

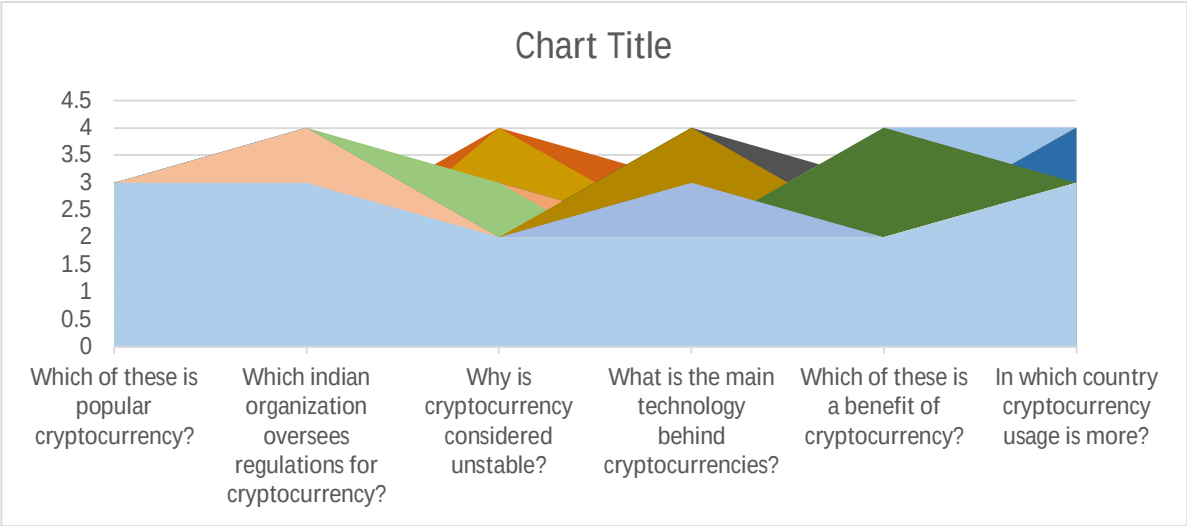
Groups	*Count*	*Sum*	*Average*	*Variance*
Which of these is popular cryptocurrency?	53	137	2.584906	0.632075
Which Indian organization oversees regulations for cryptocurrency?	53	132	2.490566	0.639332
Why is cryptocurrency considered unstable?	53	108	2.037736	0.383164
What is the main technology behind cryptocurrencies?	53	107	2.018868	0.595791
Which of these is a benefit of cryptocurrency?	53	111	2.09434	0.77939
In which country cryptocurrency usage is more?	53	111	2.09434	1.27939

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	16.51572	5	3.303145	4.599259	0.00046	2.242926
Within Groups	224.0755	312	0.718191			
Total	240.5912	317				

C. Interpretation of Results

- F – value (4.5992)> F crit (2.2429): Reject the null hypothesis.
- P- value (0.000): confirms that there is a statistically significant difference between the group means.
- This suggests that responses to the questions differ significant, indicating variation in how participants perceive or respond to different aspects of cryptocurrency.



D. Interpretation

The chart visually reinforces the results of the ANOVA, highlighting significant differences between the response means for different questions. Questions like "Which is the most popular cryptocurrency?" stand out with higher responses, suggesting greater awareness or agreement, while others (e.g., instability of cryptocurrency) score lower, indicating either less knowledge or differing opinions.

VI. FINDINGS

1) The global cryptocurrency market saw a 55% growth in 2023, increasing from $795 billion to $1.2 trillion.
2) However, it's stability in the Indian context is influenced by global trends, such as regulatory policies in the U.S and Europe.
3) Indian ranks among the top countries in cryptocurrency adoption, reflecting its potential as a growing market for digital assets.
4) Regulatory uncertainty remains a significant barrier. The Reserve Bank of India's previous ban on cryptocurrency transactions was overturned in 2020, but the absence of clear regulations continues to create hesitation among investors and businesses.
5) A potential introduction of the Central Bank Digital Currency (CBDC) by India could influence cryptocurrency adoption and usage.
6) Cryptocurrencies are highly volatile, risk – averse investors and complicating their use as a stable medium of exchange.
7) Security concerns, including hacking incidents, have also shaken investor confidence.
8) Cryptocurrencies could improve financial inclusion by providing banking solutions to unbanked populations through decentralized finance platforms.
9) Blockchain applications, including smart contracts and decentralized apps, offer transformative potential across industries.
10) Low awareness the general public and associations with widespread adoption only a small fraction of Indian internet users have invested in cryptocurrencies.

VII. SUGGESTIONS

1) The government should create a well-defined regulatory framework that supports innovation while addressing risks like money laundering and fraud.
2) Involving blockchain and crypto experts in policymaking can ensure balanced regulations that protect users without growth.
3) Conduct campaigns to educate the public about cryptocurrency benefits, risks and applications.
4) It include blockchain and cryptocurrency-related courses in educational institutions to foster long term awareness.
5) Promote the use of cryptocurrencies and decentralized finance platforms in rural and unbanked regions to provide alternative financial services like lending.
6) Simplify regulations for international cryptocurrency transactions to leverage their efficiency in global trade.
7) Launch a digital rupee to complement cryptocurrency use and provide a regulated alternative that can exist with digital assets.

VIII. CONCLUSION

This study highlights the stability of cryptocurrencies is influenced by global economic trends, government policies and evolving market dynamics. While bitcoin and Ethereum dominate the landscape, emerging coins and blockchain projects also attract significant attention. The lack of regulatory framework in India has led to uncertainty, hindering mass adoption and institutional investment. However, recent developments including the Reserve Bank of India exploration of Central Bank Digital Currencies (CBCD'S) and the government's interest in taxation policies suggest a growing recognition of cryptocurrencies potential.

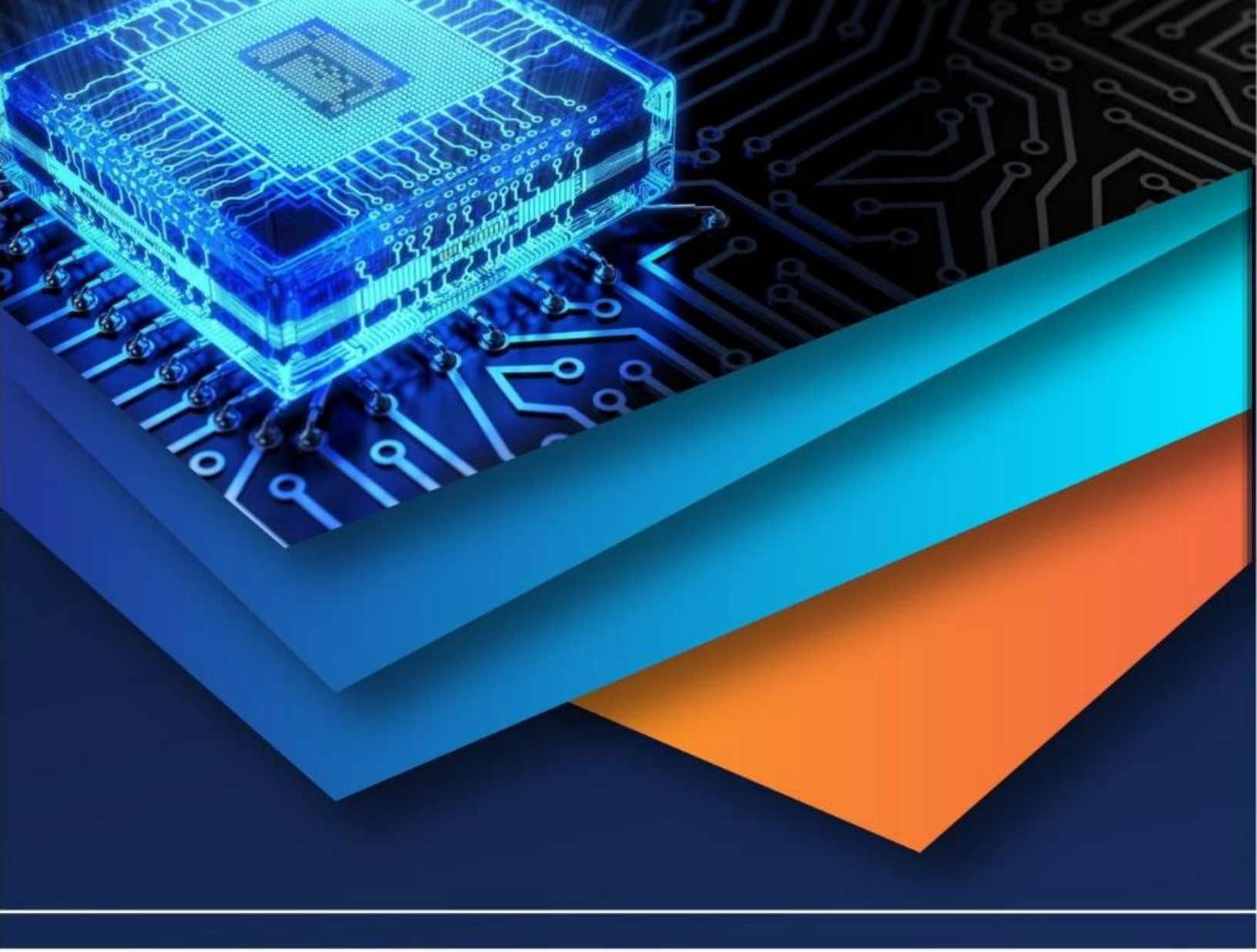
REFERENCES

[1] Yermack, D. (2015) Cryptocurrencies and Cross- Border Transactions: A Path to Reduced Fees and Delays. Journal of International Finance.
[2] Tapscott, A &Tapscott B (2016) Decentralized and Trust in Cryptocurrencies: Enabling Decentralized and Trustless Transactions. Journal of Blockchain Research.
[3] Chakrabarty, D & Kaur, R (2018) Regulatory ambiguity and challenges in cryptocurrency taxation: A case study of the Indian context. Journal of legal and regulatory perspective.
[4] Bhaskar. P& Sharma R (2020) Cryptocurrency adoption in India: A qualitative study of the influencing factors. Journal of Public Affairs.
[5] Banerjee, S (2020) Cryptocurrency: A new age economic instrument for financial inclusion in India. Journal of Financial Economic Policy.
[6] Ankenbrand, T., & Bieri, D. (2018). Assessment of cryptocurrencies as an asset class by their characteristics. Investment Management and Financial Innovations
[7] Annie, N. (2021). Cryptocurrencies could lead to financial instability.
[8] Anulekha, R. (2022). Govt committee recommends a ban on cryptocurrency in India.
[9] Bhimani, A., Hausken, K., & Arif, S. (2022). Do national development factors affect cryptocurrency adoption? Technological Forecasting and Social Change.
[10] Springer. Chiu, J., & Koeppl, T. V. (2017). The economics of cryptocurrencies bitcoin and beyond (Bank of Canada Staff Working Paper, No. 2019)

Table

Which of these is popular cryptocurrency?	Which Indian organization oversees regulations for cryptocurrency?	Why is cryptocurrency considered unstable?	What is the main technology behind cryptocurrencies?	Which of these is a benefit of cryptocurrency?	In which country cryptocurrency usage is more?
3	3	2	1	2	1
3	2	2	2	1	3
3	3	2	2	2	1
3	3	2	2	2	1
3	2	2	2	2	3
1	3	2	3	1	1
1	2	1	1	1	1
1	3	2	3	2	1
3	3	2	1	3	1
3	3	1	1	2	1
3	3	2	2	2	1
3	2	2	2	1	3
3	1	2	2	3	1
3	2	2	3	1	1
3	2	2	3	2	1
3	3	2	2	2	3
3	3	3	1	4	4
3	3	2	1	2	1
1	3	2	1	2	3
1	2	4	3	3	3
2	2	1	2	1	1
3	1	4	2	1	1
3	4	2	2	2	1
1	2	1	2	2	3
3	3	2	2	1	3
1	3	2	1	1	3
3	3	2	2	2	2
3	3	2	1	2	1
3	3	2	2	4	4
3	2	2	2	2	1
3	2	2	2	1	1
3	3	1	2	1	3
3	3	2	4	3	1
3	2	2	2	2	1
3	3	3	2	3	3
3	2	2	4	1	1
1	2	3	1	3	3
3	1	3	2	2	4
1	1	1	2	4	1
3	2	2	2	1	3
2	3	2	3	2	1
3	4	3	1	3	1
3	1	2	2	3	3
3	2	1	1	4	3
3	3	2	2	2	4
1	2	2	4	2	1
3	4	2	2	2	4
3	1	2	2	4	3
3	3	2	3	2	3
3	4	2	2	2	3
3	2	2	2	2	3
3	2	2	2	2	3
3	3	2	2	2	3

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)