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# A STUDY ON THE FUTURE OF CRYPTO CURRENCIES IN INDIA WITH THE OPPORTUNITIES AND CHALLENGES A SPECIAL REFERENCE TO CHENNAI CITY

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#### ABSTRACT

The rapid evolution of information and communication technology has transitioned numerous aspects of our daily routines into the online enhancing their flexibility and efficiency. This shift has led to a notable surge in online users, giving rise to virtual worlds and the emergence of crypto currencies. It promotes new business phenomena facilitating financial activities like buying, selling, and trading. Crypto currencies operate on decentralized networks involving a multitude of computers, eliminating centralized control by governmental or central authorities. This research delves into the challenges associated with crypto currency usage, encompassing factors such as its complexity, government regulations, and legal considerations in the context of India. The study explores user awareness and expectations regarding the future of crypto currency, aiming to address both legal and practical uncertainties within India's intricate crypto ecosystem. Despite a reported 400 per cent increase in crypto investments in India, soaring from \$923 million in April 2020 to nearly \$6.6 billion in May 2021, the legal status of crypto currencies remains ambiguous. Recent updates reveal that the Indian government has stated its lack of plans to introduce any crypto currency, reinforcing the sole recognition of traditional paper currency as legal tender issued by the Reserve Bank of India (RBI). This paper's primary objective is to assess the readiness of Indian users to embrace crypto currency as a future currency and to scrutinize the likelihood of crypto currency legalization in India.

**Key Words:** Crypto currency, Reserve Bank of India, legalisation, traditional paper currency

## **INTRODUCTION**

Crypto currencies represent a relatively recent phenomenon in the global economy, having existed for approximately over ten years, yet garnering significant attention. Since 2013, they have undergone volatile fluctuations in their exchange rates. Categorized among various virtual currencies, crypto currencies can be viewed as digital mediums of exchange rooted in cryptographic principles, enabling secure, decentralized, and distributed economic transactions. Operating on networks with a substantial number of computers, crypto currencies are inherently decentralized, freeing them from the control of governmental or central authorities. This innovative concept allows individuals to engage in buying, selling, and investing in currencies devoid of physical form, with all transactions conducted online. Distinguished by its decentralized nature and lack of third-party involvement, the crypto currency system exhibits a unique resilience, leading to a notable surge in investments. In India, where crypto currency investments have exceeded \$1 billion, concerns persist regarding the legal ambiguity surrounding crypto currencies, leaving investors uncertain about their status and future trajectory. This study delves into the primary motivations for investing in crypto, explores the legal and regulatory challenges specific to India, and investigates the role of age in crypto currency investments. Additionally, it highlights a burgeoning trend in India where enterprising teenagers, fuelled by their pocket money, contribute to the country's substantial crypto investments, signalling a new wave of investors amidst the ongoing crypto currency craze.

## **RESEARCH OBJECTIVES**

1. To know the socio-economic profile of the respondents
2. To gain insights into the complex nature of investing in crypto currencies
3. To explore the importance of age as a determining factor in crypto currency investments
4. To Investigate the legal aspects and trading landscape of crypto currencies in the Indian context

## **RESEARCH METHODOLOGY**

This research uses a Descriptive and Analytical approach by gathering data from both primary and secondary sources. A questionnaire serves as the research instrument to facilitate the study, enabling an examination of consumer awareness regarding crypto currencies. The survey, conducted through a well-structured questionnaire, aids in analysing the challenges associated with the complexity of trading and legislative aspects of crypto currencies in India. In addition to the questionnaire, data is sourced from various research articles, websites, and newspapers to comprehensively assess and comprehend the legal status of crypto currencies within the Indian context.

## **STATEMENT OF THE PROBLEM**

Crypto currency introduces a novel method of conducting transactions and preserving value, often regarded as superior to traditional fiat and gold. In recent days, approximately 20 million people in the country have embraced crypto currencies, making them an integral part of the Indian investor's vocabulary. As of May 2023, the collective value of crypto assets held by Indians reached more than \$6.6 billion. The crypto currency's projected growth rate is 60.12

per cent. While a 30 per cent tax on crypto currency transactions has been imposed nationwide, the lack of clarity regarding the currency's legalization remains a source of confusion. The finance minister's statement clarifying that taxing crypto does not equate to legalization has left many perplexed. Hence, it is crucial to delve into the intricacies of crypto trading in India, understand its operations, gauge consumer awareness, identify key players in these transactions, and grasp the government's stance on its legalization.

## STATISTICAL TOOLS USED

1. Percentage Analysis
2. Chi-Square Test

## Hypothesis

1. There is no relationship between the age factor and investing in crypto currencies
2. There is no relationship between the subject complexity and investing in crypto currencies

## REVIEW OF LITERATURE

**Sharma, M. K. (2022)** analysis the growth of crypto currencies indicates a high level of adoption globally, with India demonstrating a notable adoption ratio. The Indian government's endorsement of a 30 per cent tax on digital currency income signifies support for crypto currency users. However, the key threat identified in the Indian market is a lack of information or knowledge. A well-regulated and user-friendly policy has the potential to propel India into a faster crypto currency hub. A SWOT analysis reveals significant strengths, weaknesses, opportunities, and threats in the crypto currency market, showcasing its decentralized nature, minimal transaction costs, and global accessibility as strengths. Weaknesses include security concerns, scams, and high volatility. Opportunities encompass a globalized market and the reduction of systematic risk, while threats include black marketing, low adoption due to knowledge gaps, and legal issues in some countries.

**Dr. Kishor and P. Bholane (2021)** stated the necessity for governmental and regulatory authorities to comprehensively examine and comprehend the mechanics of crypto currency. Collaborative efforts between cryptocurrency organizations and policymakers can establish a substantial and secure currency exchange. When considering crypto currency as a digital investment avenue, it is crucial to weigh the pros and cons associated with crypto currencies. Before engaging in any crypto currency investment, careful consideration of the Indian government's stance on legality and regulation is imperative.

**Anil Kumar, V. V., and Swathy, P. (2019)** discussed Crypto currency, particularly Bitcoin, which offers an innovative and attractive model of payment methods that can enhance company revenues and provide an alternative to traditional currency for various financial activities. However, the lack of trust in crypto currency platforms is a prevailing concern, with existing challenges and issues. Until crypto currency is effectively regulated, users are advised to exercise caution when utilizing virtual currencies due to the absence of legislative frameworks.

**Shailak Jani (2018)** explores that Crypto currency is poised to become the next currency platform owing to its substantial volume and growing adoption. However, users have yet to fully comprehend the implications of using crypto currency, and trust remains an issue.

Numerous concerns, challenges, and issues persist in various crypto currency platforms, necessitating robust regulation and control for users to navigate this virtual financial landscape cautiously.

**Peter DeVries, D. (2016)** uncovers that Crypto currency appears to have progressed beyond the initial adoption phase typical of new technologies, resembling the historical trajectory of motor vehicles. Despite being in its early stages, the future presence of crypto currencies in global markets remains uncertain, making it challenging to predict whether they will achieve true mainstream acceptance.

## **MAJOR CHALLENGES OF CRYPTOCURRENCY**

The challenges of crypto currency encompass various aspects of technology, regulation, security, and public perception. Some notable challenges include:

1. **Regulatory Uncertainty:** Many countries lack clear regulations or have varying stances on crypto currencies. The absence of a standardized regulatory framework can lead to legal ambiguities and hinder the widespread adoption of crypto currencies.
2. **Security Concerns:** Crypto currencies are susceptible to hacking, fraud, and cyber-attacks. Security breaches in cryptocurrency exchanges, wallet services, and the underlying blockchain technology can result in significant financial losses for users.
3. **Volatility:** Crypto currency markets are known for their high volatility. Prices can fluctuate dramatically within short periods, posing risks for investors and making it challenging to predict market trends accurately.
4. **Lack of Consumer Awareness:** Despite growing popularity, many individuals still lack a comprehensive understanding of how cryptocurrencies work. This lack of awareness can lead to uninformed decisions, scams, and potential misuse of crypto currencies.
5. **Scale and Scalability:** As the user base and transaction volume increase, scalability becomes a concern. Some blockchain networks struggle to handle a large number of transactions, leading to delays, higher fees, and decreased efficiency.
6. **Environmental Impact:** Proof-of-work consensus mechanisms, used by some crypto currencies like Bitcoin, consume substantial energy. This has raised environmental concerns, prompting discussions about the sustainability of certain blockchain technologies.
7. **Market Manipulation:** Crypto currency markets are susceptible to manipulation due to their relatively small size compared to traditional financial markets. Activities such as pump-and-dump schemes can impact prices and harm investors.
8. **Legal and Regulatory Risks:** Legal challenges and uncertainties in different jurisdictions can affect the development and adoption of cryptocurrencies. Regulatory actions, bans, or restrictions may impede the growth of the crypto industry.
9. **Integration with Traditional Financial Systems:** Bridging the gap between crypto currencies and traditional financial systems poses challenges. Adoption by mainstream financial institutions, regulatory compliance, and interoperability with existing infrastructure requires careful consideration.

10. Perception and Trust: The public perception of cryptocurrencies can be influenced by factors such as media coverage, regulatory developments, and high-profile security incidents. Building trust in the technology is essential for broader acceptance.

### DATA ANALYSIS AND INTERPRETATION

The preliminary study was undertaken between December 2023 and January 2023 to gather data on various facets of cryptocurrency. The survey's objective was to measure the extent of cryptocurrency usage and obtain a practical understanding of its prevalence.

**Table 1: Socio-Economic Profile of the respondents**

Indicators	No. of respondents	Percentage
<b>The gender of the Respondents</b>		
Male	68	81.93
Female	15	18.07
Total	83	100.0
<b>The age group of the Respondents</b>		
Upto 18	7	8.43
18 - 35	38	45.78
35 - 60	23	27.71
Above 60	15	18.08
Total	83	100.0
<b>Educational Qualification of the Respondents</b>		
School Education	10	12.05
Under Graduate	54	65.06
Post Graduate	12	14.46
Professional	7	8.43
Total	83	100.0
<b>Occupation of the Respondents</b>		
Unemployed	5	6.03
Self Employed	13	15.66
Private Sector	48	57.83
Public Sector	7	8.43
Professional	10	12.05
Total	83	100.0

#### Source: Primary Data

Table 1 reveals that, majority of the respondents are male (81.93 per cent). Maximum number of the respondents are between the age group of 18 and 35 as it shows 45.78 per cent. Majority of the respondents have completed under graduation (65.06 per cent) and 57.83 per cent of the respondents are working in private sector.

**Table 2: Reply of respondents related to awareness of cryptocurrency**

Factors	No of respondents	Percentage
Yes, I am aware of cryptocurrencies	62	74.70
No, I am not aware of cryptocurrencies	21	25.30
Total	83	100.0

**Source: Primary Data**

It is understood from the table 2 that, majority of the respondents (74.70 per cent) are aware of crypto currencies. It reveals that, most of them are aware of the new investment avenue that leads to greater innovation and efficiency in global financial systems.

**Table 3: Reply of respondents related to usage of cryptocurrency**

<b>Indicators</b>	<b>No of respondents</b>	<b>Percentage</b>
<b>a. User experience with cryptocurrencies</b>		
Owned cryptocurrency	43	51.81
Never owned cryptocurrency	40	48.19
Total	83	100.0
<b>b. Main reasons for investing in cryptocurrencies</b>		
Higher returns	28	33.7
Low transaction costs	6	7.2
No central authority	7	8.4
International acceptance	2	2.4
Did not invest	40	48.2
Total	83	100.0
<b>c. Main reasons for not investing in Cryptocurrencies</b>		
Lack of knowledge	10	25
Highly volatile	12	30
No central authority	7	17.5
Theft/Hacking/Cyber security	8	20
Technical issues	3	7.5
Total	40	100.0
<b>d. Not interested in investing in cryptocurrency as it is a new concept</b>		
Yes	33	39.8
No	50	60.2
Total	83	100.0
<b>e. Reply of respondents regarding the safety of cryptocurrency investment</b>		
Extremely safe	41	49.4
Moderately safe	17	20.5
Not at all safe	25	30.1
Total	83	100.0

**Source: Primary Data**

It is clear from table 3 that, the majority of the respondents have owned crypto currencies (51.81 per cent). Nearly 48 per cent of the respondents were not interested in investing in crypto currencies but 33.7 per cent of respondents were interested in investing in crypto currencies as it gives higher returns than other saving options available in the market. Out of 40 not-interested respondents, 12 respondents (30 per cent) were not interested as the crypto currency market environment is likely to change suddenly. There is high risk and unexpectedness involved with crypto currencies. The majority of the respondents (60.2 per

cent) are not interested in investing in crypto currencies as it is a new concept to the market. Nearly 49 per cent of the respondents felt investing in cryptocurrencies is extremely safe as it is approached with caution, thorough research, and diversification across assets.

**Table 4: Reply of respondents related to the legality and regulation of cryptocurrencies**

Indicators	No of respondents	Percentage
<b>a. Interested in investing in Cryptocurrency if it is strictly regulated</b>		
More	67	80.7
Less	16	19.3
Total	83	100.0
<b>b. Reply of respondents regarding opinion on taxing of cryptocurrencies by the Government of India</b>		
Good	73	88
Bad	10	12
Total	83	100.0

**Source: Primary Data**

Table 4 reveals that, majority of the respondents (80.7 per cent) were highly interested in crypto currencies when it is properly regulated by the government of India. The majority of the respondents (88 per cent) are ready to pay tax for the revenue earned in crypto currencies for the government of India.

## TESTING OF HYPOTHESIS

**Hypothesis No. 1 H<sub>0</sub>: There is no relationship between the age of the respondents and investing in crypto currencies**

**Test Used: Chi-Square Tests**

**Table 5**

**Relationship between the age of the respondents and investing in crypto currencies**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	52.203 <sup>a</sup>	6	.000
Likelihood Ratio	63.612	6	.000
Linear-by-Linear Association	.719	1	.396
N of Valid Cases	384		

**Source: Computed Data**

In table 5 shows that, the p value is 0.000 which is less than 0.05 and hence alternative hypothesis is accepted and null hypothesis is rejected, that is, there is a significant association between the age of the respondents and investing in crypto currencies.

**Hypothesis No. 2 H0: There is no relationship between the subject complexity and investing in crypto currencies**

**Test Used: Chi-Square Tests**

**Table 6**  
**Relationship between the subject complexity and investing in crypto currencies**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	96.507 <sup>a</sup>	6	.000
Likelihood Ratio	120.299	6	.000
Linear-by-Linear Association	17.459	1	.000
N of Valid Cases	384		

**Source: Computed Data**

In table 6 shows that, the p value is 0.000 which is less than 0.05 and hence alternative hypothesis is accepted and null hypothesis is rejected, that is, there is a significant association between the subject complexity and investing in crypto currencies.

## **FINDINGS**

The following are the findings of the study,

- ❖ Majority of the respondents are male (81.93 per cent).
- ❖ Maximum number of the respondents are between the age group of 18 and 35 as it shows 45.78 per cent.
- ❖ Majority of the respondents have completed under graduation (65.06 per cent).
- ❖ 57.83 per cent of the respondents are working in private sector.
- ❖ Majority of the respondents (74.70 per cent) are aware of crypto currencies.
- ❖ Majority of the respondents have owned crypto currencies (51.81 per cent).
- ❖ 33.7 per cent of respondents were interested in investing in crypto currencies as it gives higher returns than other saving options available in the market.
- ❖ Nearly 49 per cent of the respondents felt investing in cryptocurrencies is extremely safe.
- ❖ Majority of the respondents (80.7 per cent) were highly interested in crypto currencies when it is properly regulated by the government of India.
- ❖ Majority of the respondents (88 per cent) are ready to pay tax for the revenue earned in crypto currencies for the government of India.
- ❖ The p value is 0.000 which is less than 0.05 and hence alternative hypothesis is accepted and null hypothesis is rejected, that is, there is a significant association between the age of the respondents and investing in crypto currencies.
- ❖ The p value is 0.000 which is less than 0.05 and hence alternative hypothesis is accepted and null hypothesis is rejected, that is, there is a significant association between the subject complexity and investing in crypto currencies.



## SUGGESTIONS

To enhance cryptocurrency transactions and improve the overall user experience, consider the following key suggestions,

1. Before engaging in cryptocurrency transactions, educate yourself about the specific cryptocurrencies you plan to use, the underlying blockchain technology, and the security features of the chosen wallets or platforms.
2. Stay informed about market trends, regulatory developments, and potential risks associated with different cryptocurrencies.
3. Choose reputable and secure cryptocurrency wallets for storing your digital assets. Hardware wallets, which store private keys offline, are generally considered more secure than online wallets.
4. Enable two-factor authentication (2FA) on your wallets and exchange accounts to add an extra layer of security.
5. Keep your cryptocurrency wallet software and any associated applications up to date. Developers regularly release updates that may include security enhancements and bug fixes.
6. Diversify your cryptocurrency holdings to spread risk across different assets. Avoid putting all your investments into a single cryptocurrency, as market conditions and values can vary widely.
7. Choose well-established and reputable cryptocurrency exchanges for buying, selling, and trading. Research and read user reviews to ensure the platform has a good track record for security and customer support.
8. Be aware of transaction fees associated with different cryptocurrencies and wallets. Some cryptocurrencies may offer faster transaction times but with higher fees, while others may be more cost-effective but slower.

## CONCLUSIONS

Cryptocurrency is a digital or virtual form of currency that utilizes cryptography for security and operates on decentralized networks, typically based on blockchain technology. Unlike traditional currencies issued by governments and central banks, cryptocurrencies rely on a peer-to-peer network of computers to validate and record transactions. The most well-known cryptocurrency is Bitcoin, but numerous others, such as Ethereum and Ripple, have emerged, each with its unique features and applications.

The evolution of cryptocurrency can be traced back to the introduction of Bitcoin in 2009 by an unknown person or group using the pseudonym Satoshi Nakamoto. Since then, the crypto space has witnessed rapid growth, with the creation of various alternative cryptocurrencies and the development of blockchain technology for applications beyond currency, such as smart contracts and decentralized finance.

Controlling authorities for cryptocurrency differ significantly from traditional financial systems. Cryptocurrencies operate in a decentralized manner, meaning they are not governed by any single entity or government. Instead, they rely on a distributed network of nodes to validate transactions and maintain the integrity of the system. This decentralization is often considered a key advantage as it reduces the risk of manipulation and censorship.

The advantages of cryptocurrencies include faster and more cost-effective cross-border transactions, financial inclusion for the unbanked population, increased privacy and security, and the potential for decentralized applications. However, cryptocurrencies also face limitations and challenges. Price volatility, regulatory uncertainties, and the potential for use in illegal activities are notable concerns.

One of the problems in the cryptocurrency space is the lack of a universally accepted regulatory framework. Governments and financial institutions globally are still grappling with how to regulate and integrate cryptocurrencies into existing financial systems. To overcome these challenges, a collaborative and adaptive approach is needed, involving both the public and private sectors. Clear and comprehensive regulations can provide a stable environment for the growth of the cryptocurrency industry, ensuring consumer protection and preventing illicit activities. Additionally, education and awareness initiatives can help users understand the risks and benefits associated with cryptocurrencies, fostering responsible adoption and use.

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