

ANALYSIS OF THE ADAPTIVE USE OF CRYPTOCURRENCY IN INDIA

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Abstract

This paper analyzes the adaptive use of Cryptocurrency in India. We see India as an emerging market in the space of Cryptocurrency, especially taking into consideration India's population of youth. Using secondary data, this study discusses the adoption of cryptocurrencies in India in the context of government and central bank policies/restrictions and analyzes the usage patterns to determine possible divides on age and gender. Further, we aim to analyze what factors could limit India's adoption of Cryptocurrency in the future. We also look at the primary data for a case study of female youth in New Delhi to analyze their perception and use of cryptocurrencies in India, looking at the percentage of people investing in cryptocurrency, their opinion of this emerging market, and other data to contextualize the discussion in the landscape of an urban economy in India.

1. Introduction

Over the past few years, cryptocurrency has emerged as a recurring topic of discussion in popular culture and households alike. This infatuation with cryptocurrency can also be attributed to the very circumstances in which it was created. The first cryptocurrency, Bitcoin, came into existence in 2008 as an antithesis to the traditional banking system, in the backdrop of the financial recession of 2007 which significantly reduced the public's trust in physical money.

These new-age currencies have come to comprise a good part of the global market. The global cryptocurrency market size was valued at \$1.49 billion in 2020 and is projected to reach \$4.94 billion by 2030. With most countries like the US, Vietnam, Philippines accepting and engaging with cryptocurrencies at an increasing rate, the digital assets market has been growing at a fast pace.

Some developing countries like El Salvador and Central African Republic have already legalized the use of cryptocurrency as their legal tender and recently, even the Costa Rican government allowed the use of cryptocurrency to legally pay employees.

Considering India's emerging status as a world leader, especially when considered in the context of emerging markets in South Asia, it is important to not only analyze the status of cryptocurrency in India but also see what the future holds for it.

2. Literature Review

2.1 Youth's Perception

One interesting trend about cryptocurrency is how even though a great number of traders believe themselves to have a low level of knowledge of cryptocurrency, and are uncertain about cryptocurrency as the future of finance, they are willing to invest in this new-age currency (Sabarwal, 2022). Enthusiasm regarding cryptocurrency is seen the most amongst youth aged 18-34 as compared to any other age group (Paxful, 2021). The enthusiasm around cryptocurrency amongst youth can be attributed to the fact that they grew up around technology, so they have a greater level of comfort with it. They believe in technology way more than they do in traditional financial methods, unlike the older generations (Gilbert, 2022). Apart from how easy and hassle-free the new age currencies are to invest in, social media and pop culture are the most influential factors to bring in a greater adaptation of cryptocurrency among the youth (Gupta et al., 2021). Cryptocurrency investment patterns are heavily influenced by what is trending on social media (*How Pop Culture and social media Manipulate the Meme Coin Market*, 2021). It can range from what celebrities, businessmen, and politicians have to say about crypto to vigorous crypto communities across different platforms. According to Gilbert (2022), those within the age range of 18-34 years old, are 17% more likely to base their investment decisions based on information gathered from social media.

2.2 Cryptocurrency and Society

Supporters of Cryptocurrency have for a long time boasted of how Cryptocurrency is a level playing field for everyone with no barriers to entry. In reality, Cryptocurrency finds itself in the conjunction of two sectors—STEM and Finance—areas in which women and individuals from racial and class minorities have been historically underrepresented (Cryptocurrency Investing has a Big Gender Problem, 2021). Even though research shows that cryptocurrency investment by women has grown over time, their participation in the sector has remained very low. Even to the extent that women are holders or users of cryptocurrencies, they are likely to hold very little of the available wealth (Henshaw, 2022).

Another quality in favor of Cryptocurrency's inclusivity is that anyone with Internet access can participate in Cryptocurrency. However other factors need to be taken into consideration while examining Crypto access using the internet such as the quality of the Internet, its regulation, and other environmental factors like electricity and access to computer hardware that might be limiting. Even if someone has quality Internet access, understanding how cryptocurrencies work to use them successfully requires fluency in computer science language (Will Cryptocurrency Further Equity or Undermine it? It's Complicated, 2022).

3. Methodology

This paper is an analytical study aided by secondary data collected primarily from sources such as 'Chainalysis', Annual Geography of Cryptocurrency Report for 2022, and Finder Cryptocurrency Adoption Index, November 2022. We will also be using other relevant journals and articles on the subject to identify trends and limitations in India. Further, the paper includes a case study on the female youth of New Delhi, conducted through a structured questionnaire circulated via Google Forms containing a mix of multiple-choice, rating scale, and open-ended questions to get an appropriate understanding of the subject's mentality and attitude towards cryptocurrency. The questionnaire was then distributed to university-level students. There were no restrictions placed on the income or background of the respondents. The answers were then analyzed primarily using descriptive statistics and exploratory analysis. The final sample size used for analysis was 106 respondents.

However, it is important to note that the study does have certain limitations. Our respondents would most probably be restricted to middle-class income level individuals, preventing it from making a holistic study.

4. Government Regulations

India's stance on cryptocurrency has evolved drastically over the past few years. In 2013, the Reserve Bank of India (RBI) issued a circular, warning the public against the use of Virtual Currencies (VCs), and cautioning them about the potential financial, operational, and security risks.

However, as cryptocurrency trade continued to grow, in 2017, RBI effectively placed a ban on cryptocurrency when it announced that virtual currency was not legal tender and released a circular prohibiting commercial and cooperative banks and other regulated entities from

providing services to all entities dealing with cryptocurrency. Due to this, cryptocurrency prices fell, exchanges froze and withdrawals stopped immediately.

Later in March 2020, there was a significant development when the Supreme Court of India ruled to overturn RBI's ban as it considered it to be a violation of the fundamental rights of the citizens, therefore effectively legalizing its exchange.

On February 01, 2022, during the Union Budget speech, the Indian government for the first time, appropriately acknowledged cryptocurrencies in India by recognizing them as Virtual Digital Assets (VDAs) and provided an elaborate tax regime specifically targeted at these VDAs. This includes a 30% income tax on the earnings from the transfer of digital assets. Further, a 1% deduction of tax deducted at source (TDS) was also implemented on the buyer's payment if it crosses the threshold limit. The government also proposed the creation of a Digital Currency Regulatory Authority (DCRA) to oversee the use of cryptocurrency in India.

However, it is also important to note, that as of the writing of this paper, the government has made no specific references or mentions of cryptocurrencies or virtual assets while presenting the Union Budget for 2023.

5. Pre-COVID-19

Cryptocurrencies experienced significant growth in 2019 as more and more investors left the stock market to take advantage of the crypto frenzy. According to CoinMarketCap, the total market capitalization of cryptocurrencies was over \$130 billion in January 2019. This broke all records and the increased popularity of cryptocurrencies caused the market to fall just short of the \$200 billion milestone.

The cost of a Bitcoin has more than tripled in the final three months of 2017. This has caused the popularity of the term "Bitcoin" to suddenly rise, particularly in India. When bitcoin's price reached a record high of around \$20,000 in December 2017, investors in India flocked to buy cryptocurrency. 2018 was a pivotal year for the bitcoin ecosystem in India. Investors and dealers saw it all, from a central bank order banning banks from transacting in cryptocurrency to the biggest exchange in the nation, Zebpay, closing its operations. Over the year, bitcoin prices dropped by more than 80%.

6. Post COVID-19

The onslaught of the COVID-19 pandemic in 2020 witnessed a sharp rise in cryptocurrency investment in India despite the increase in domestic economic issues and nationwide coronavirus related lockdown.

This was a period where people, concerned about their futures and its possible impact on savings, were looking for a viable alternative to the traditional centralized investing systems because they were worried that it may too fall victim to the uncertainties surrounding the pandemic.

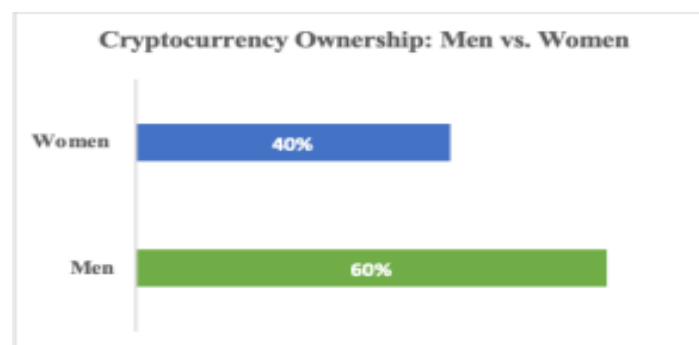
Further, the shift to contactless payment mechanisms during the pandemic made people more inclined to use and experiment with digital payment modes and cryptocurrency played an important role in enabling Indian consumers to engage in cross-border trade more seamlessly. In a context of a country like India where essential banking infrastructure is still not accessible to large swathes of the population, people started experimenting with cryptocurrency as a temporary store of money that is open 24/7 and its ease of use accompanied by high volatility presents several opportunities for the less privileged to build wealth.

6.2 Current Standing

According to data by blockchain analysis firm Chainalysis, India currently has the highest crypto-activity worth approximately 172 billion USD in 2022 alone. This puts it ahead of some developed countries including the United States of America as well as the United Kingdom.

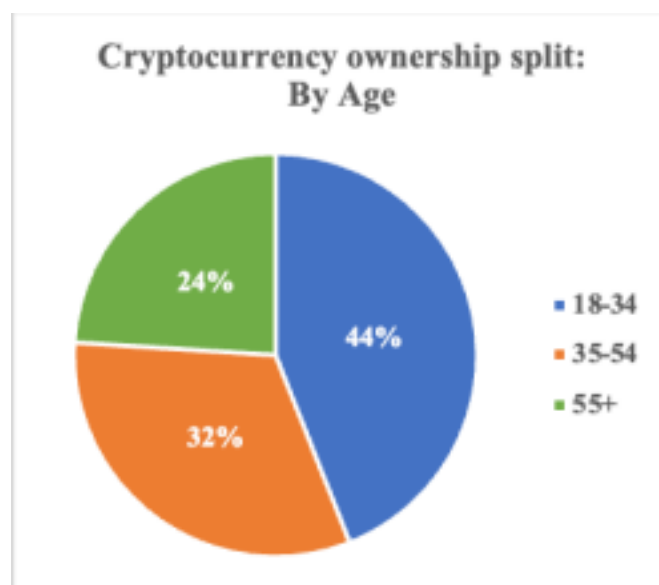
According to further research by Finder, a data-collecting platform, India ranks 1st out of 26 countries in its Cryptocurrency Adoption Index for 2022. It puts India's ownership rate at 29% which is much higher than the global average of 15%.

6.2.1 Gender Analysis



Further, men who constitute 60% of all cryptocurrency owners in India are more likely to own digital assets compared to women who comprise only 40% of the crypto-owning population. This wide gender gap can be attributed to multiple socio-economic barriers that limit women's access to cryptocurrency including lack of financial literacy, limited access to independent decision-making in the household as well as lack of access to their own financial assets which are generally controlled by male members in the family.

6.2.2 Age Analysis



While analyzing the crypto-owning population on the basis of age trends, it is apparent that those aged 18-34 in India lead the way in terms of cryptocurrency ownership by accounting for 44% of total ownership. Those aged 55+ are least likely to own cryptocurrency and comprise only 24%.

This is a particularly interesting trend considering that those aged between 18-34 are less likely to have independent control over their financial resources, relative to other age groups, but yet account for the largest ownership.

This can be attributed to the following factors:

1. **Technology Fluency:** Those aged between 18-34 have been exposed to technology from an early age, therefore, making them more likely to trust in cryptocurrency and the blockchain technology that supports it. They are more likely to adapt easily to the new phenomenon compared to older generations who consider this shift to technology as a source of concern.

2. **Distrust in Financial Institutions:** The past few decades have been wrought with frequent inflations resulting in the lack of faith in centralized banking systems and the instability associated with them. While cryptocurrency is still a relatively new phenomenon, its decentralization offers them a respite from the traditional system.
3. **Ease of Access to Crypto:** The pandemic saw the rise of digital learning platforms which enabled the youth to access credible financial resources that provide genuine research to equip themselves with financial awareness and information.
4. **High Returns:** A key attraction for a lot of young investors to invest in cryptocurrency is the possibility of earning high profits by investing in small amounts. For example, WazirX allows investors to invest as little as 100-500 rupees in cryptocurrency. Small investments such as these enable them to slowly gain confidence in the phenomenon before taking bigger risks.
5. **Social Media Factor:** Social media has played an important role in making investing in cryptocurrency a popular trend due to which even the youth who do not actively invest feel the pressure to start investing themselves.

7. Limitations in India

Despite the growth and increasing popularity of cryptocurrencies among Indians, there are still a lot of challenges that the country must overcome in order to make cryptocurrencies a widely accepted form of payment.

7.1 Lack of Financial Literacy

The rate of financial literacy in India is as low as 27%. Financial literacy has a significant impact on the pace of investment and transaction in any currency, including cryptocurrency. Furthermore, because cryptocurrencies are a high-risk currency to invest in, a lack of financial expertise makes people even more skeptical of it.

7.2 Rural vs. Urban Divide

About 69% of Indians reside in rural areas, which lack modern infrastructure, good education, and technology. Around 16% of people live in poverty in India. Again, poverty makes it difficult for people to access resources. It results in a lack of technology accessibility, financial awareness, and education.

7.3 Lack of Technological Infrastructure

Jio's entry into the market in 2016 was a huge step forward for India's technical development and ensured that internet reached all regions of the country. However, just 24% of Indians own cell phones, and only 11% own computers or desktops. With 89% of Indians without desktop computers, it is obvious that there is a shortage of technological infrastructure in India that continues to limit the growth of cryptocurrency use.

7.4 Gender Divide

Only 24% of women have basic financial knowledge. This is a clear example of the gender disparity that India faces. Despite recent improvements in the status of women in India, there is still a significant gender gap in practically every area. Indian males are 1.5 times more likely to own cryptocurrency than Indian women according to the Finder report of the Cryptocurrency Adoption Index in India. In India, three out of every four women above the age of 15 are not financially independent.

7.5 Age Divide

Awareness regarding cryptocurrencies has primarily reached the country's youth, instead of the middle-aged population. Teenagers that support cryptocurrencies often lack the finances necessary to truly participate in the industry. While the younger generation is less risk-averse and more interested in social media trends, the elder generation, which has the financial means to invest in and utilize cryptocurrencies, is typically risk-averse, prefers stability, and does not care about internet trends.

7.6 Lack of Government Support

What is truly important to note is that the Indian government and the Reserve Bank of India (RBI) have not been very supportive of the penetration of new-age currencies, i.e. cryptocurrencies, in India. This is in addition to the limitations of the socioeconomic conditions of the country. The Indian government and RBI have been cautioning Indians about the risk that cryptocurrency holds, whereas government organizations in nations like the USA regulate cryptocurrencies and develop policies to reduce the level of risk associated with this market for investors. Additionally, the recently passed Indian Union Budget for 2023-2024 overlooked cryptocurrencies. In India, there is no suitable regulatory framework for the cryptocurrency sector. This mistrust and RBI's lack of regulation of cryptocurrencies demotivate people from getting involved with cryptocurrency.

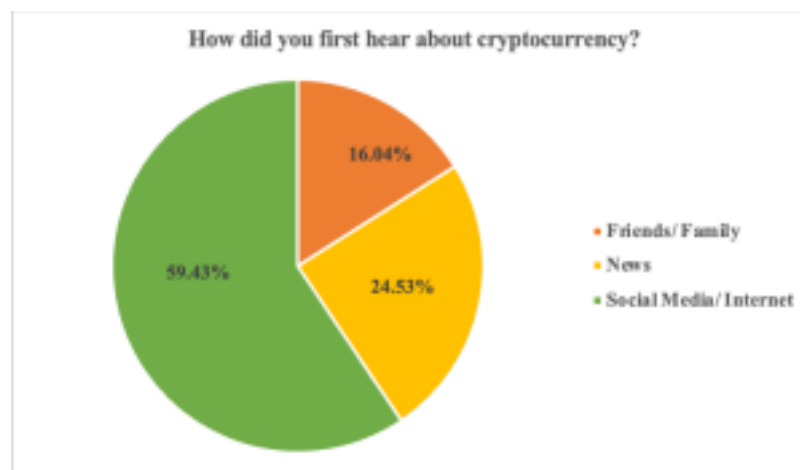
8. Case Study: Female Youth in New Delhi

The purpose of this case study is to examine the perspectives of women between the ages of 18 and 21 in New Delhi who have heard of cryptocurrencies but have never used them.

The primary data was gathered by generating an online questionnaire using Google Forms and recording the responses of 106 university-level students in order to better understand their cryptocurrency knowledge.

Results and Analysis

More than 50% of respondents said they had learned of cryptocurrencies on social media or the internet. Given that the target age group is the one that follows social media trends, this makes sense. Various influencers' and entrepreneurs' tweets and other memes that have gone viral in the previous two years have significantly increased the popularity of cryptocurrencies. Friends/family came in third place with 16%, and news sources at second with 24%.



(Figure 1)

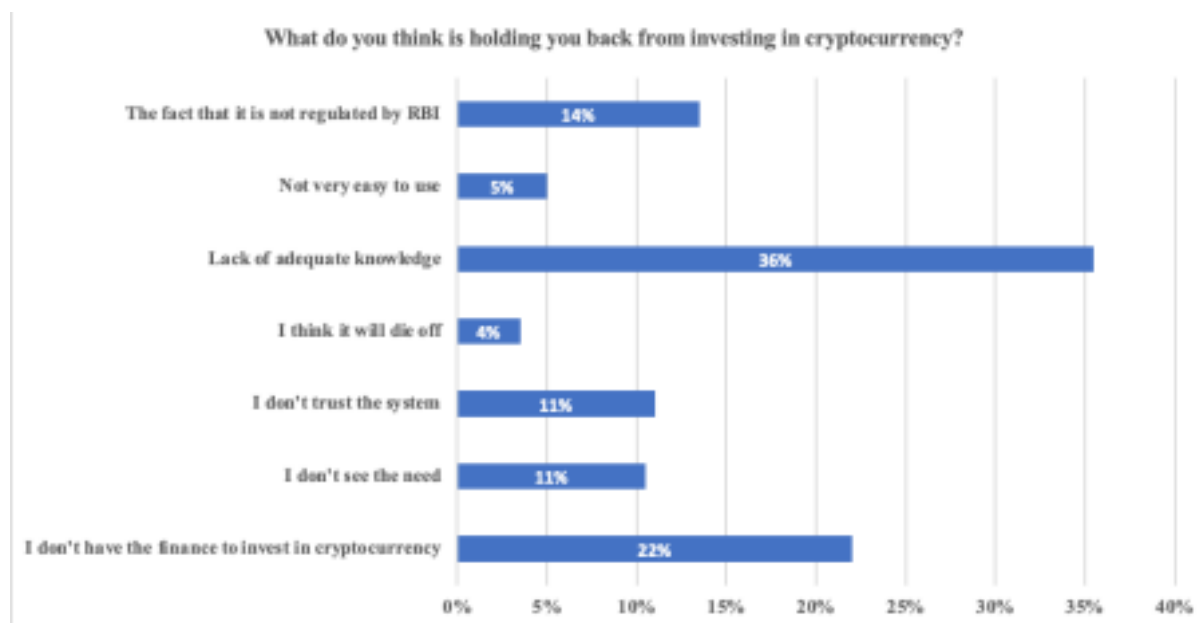
Along the same lines, when asked to rate their knowledge of cryptocurrencies, around 70% of respondents gave a score of 2 or 3, indicating that they don't have a high level of familiarity with the subject. This conclusion is consistent with our discussion of India's financial illiteracy. Only 0.94% of respondents have a thorough understanding of the subject, while 4.71% have a reasonable understanding.



(Figure 2)

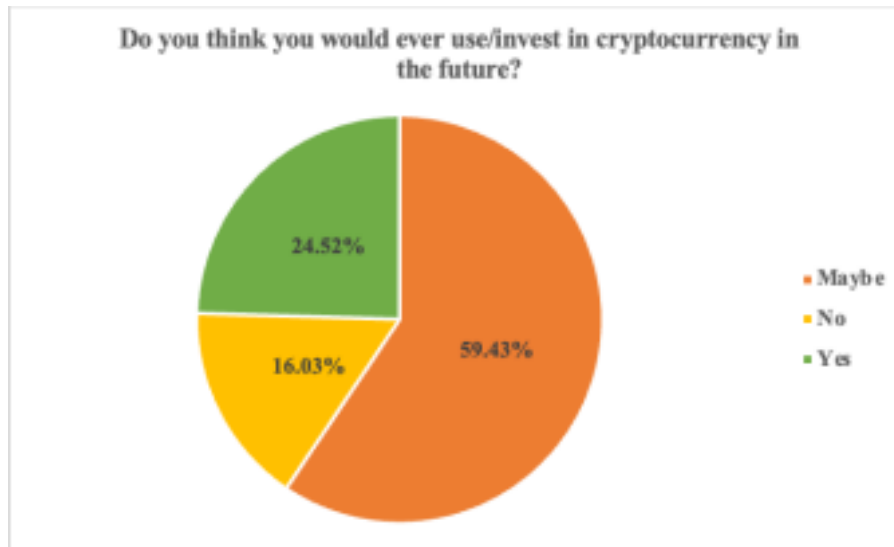
A quarter of the respondents (25%) are holding investments because they are skeptical of the decentralized cryptosystem or because of the fact that the RBI does not oversee it.

Due to the fact that our analysis was limited to university-level students in the age range of 18 to 21, it is evident that they currently do not have the funds to invest in assets and another 22% claim that this prevents them from doing so.



(Figure 3)

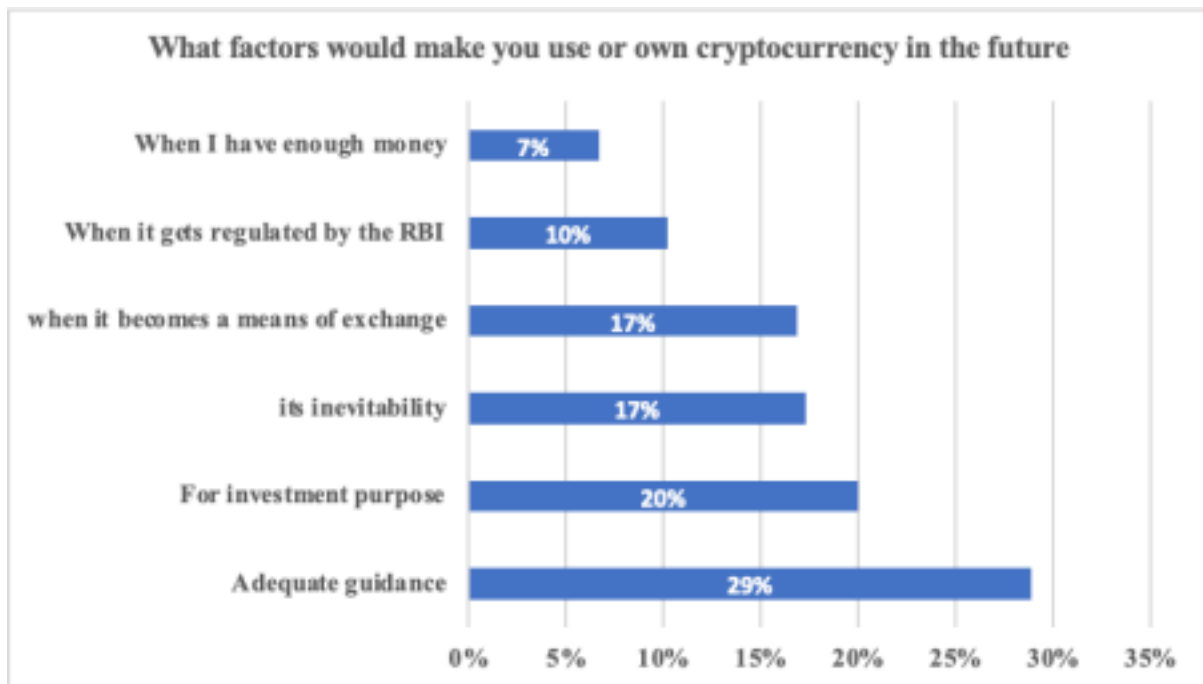
The fact that only 16% of respondents overall claimed they would never invest in cryptocurrencies shows how enthusiastic young people are about participating in the cryptocurrency environment.



(Figure 4)

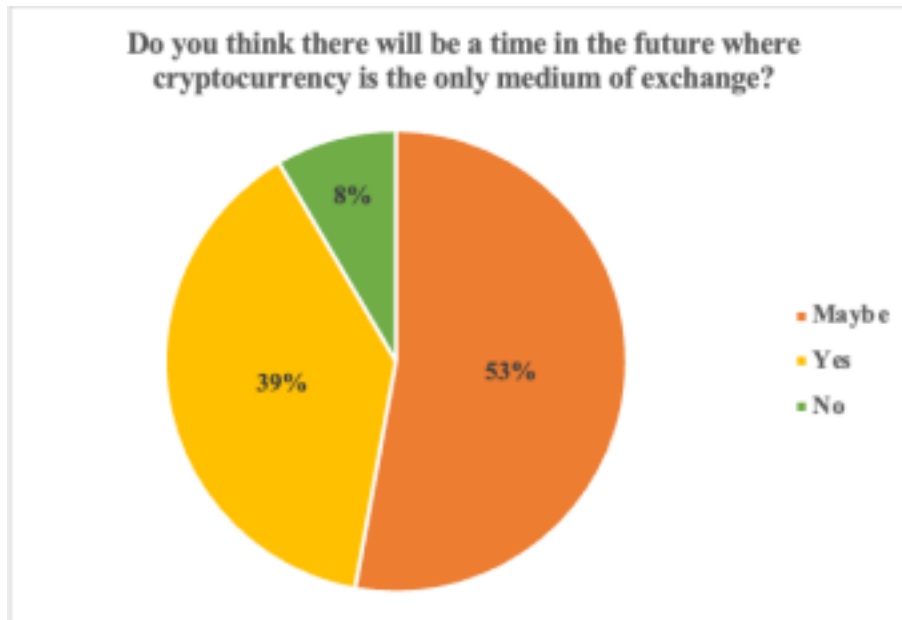
It is clear from Figure 3 that 36% of respondents lacked sufficient knowledge of the topic. About 29% of the 85% of respondents (figure 4) would be willing to invest in or use cryptocurrencies in the future if provided adequate guidance (figure 5).

For reasons including investment (20%), when it becomes a medium of exchange (17%), and its inevitable nature (17%), the respondents are open to using or owning cryptocurrencies in the future. 10% of people would only invest if it was RBI-regulated.

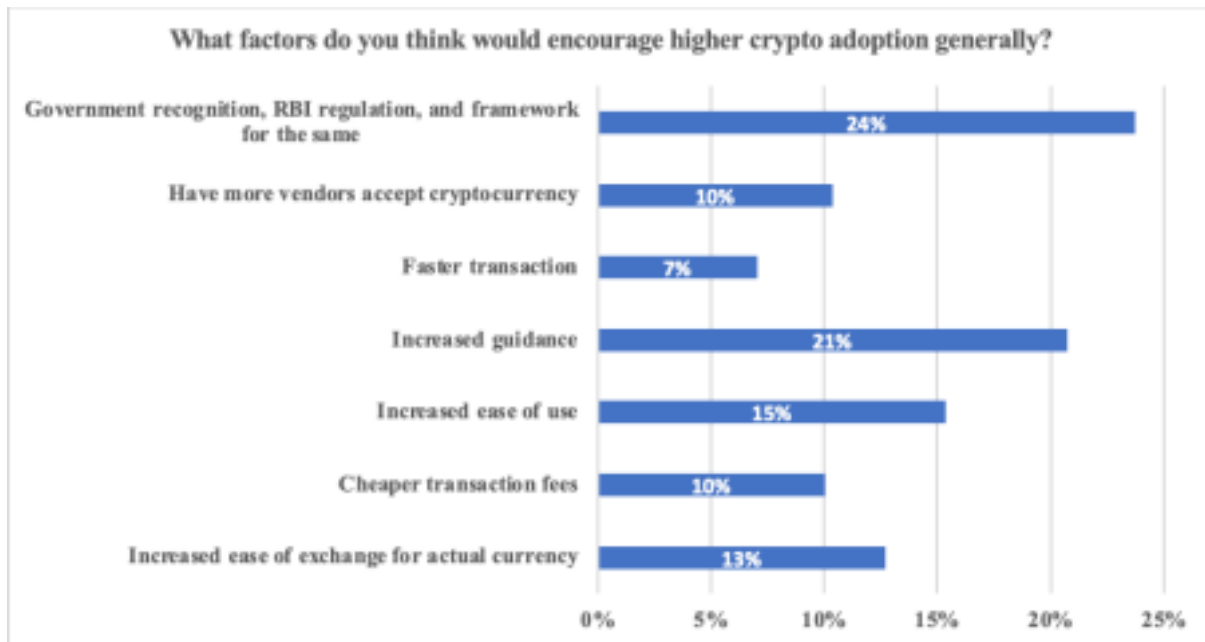


(Figure 5)

Only 8% of respondents oppose the idea, while 39% believe that cryptocurrency would eventually become the only method of payment. The majority continues to be uncertain about the same. The government’s ongoing efforts to amend the laws governing cryptocurrency and the fact that the RBI won’t be regulating it any time soon may be to blame for this.



(Figure 6)



(Figure 7)

The analysis’ findings might be summed up as showing that, despite youth enthusiasm and

familiarity with cryptocurrencies, there isn't much financial literacy, guidance, or other information available to them about cryptocurrencies that would enable them to utilize or invest in them, even if they had the money to do so. Additionally, they are afraid because cryptocurrency is not yet regulated in India. They understand that due to the lack of government support and legitimacy, investing in cryptocurrencies is still quite risky in India.

9. Conclusion

With India's continued expansion and development, the Indian market appears to be enthusiastic about the adoption of cryptocurrencies. This is a result of India's substantial youth population and the widespread use of cryptocurrencies among them. But it's unclear whether or not cryptocurrencies will truly become a payment method for everyday transactions. This is because the Indian government and RBI do not regulate or have faith in cryptocurrencies, and India faces socio-economic issues such as poverty, a lack of technological infrastructure, a lack of financial literacy and guidance, risk aversion, and gender inequality.

9.1 Path Ahead

The Indian Government's attitude towards cryptocurrency seems to be making a turn. Recently, India has taken cryptocurrency up as one of its key priorities for its G20 presidency in 2023. As of the writing of this paper, India is scheduled to host a G20 summit to discuss the regulation of cryptocurrencies. While there are predictions that legislations governing crypto assets are to be implemented later this year, it's unclear when that will happen. However, it is certain that it would certainly help in ensuring that cryptocurrency is used and adopted by more people in India by reducing the risks and uncertainties associated with the same.

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