

Analyzing Receptivity of Indian Respondents for Introduction of a Regulated Cryptocurrency Market

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ABSTRACT

There have been increasing concerns regarding the cryptocurrency market for several reasons, regarding its decentralized system, and impact on the current financial market. Thus, the introduction of a regulated cryptocurrency market has sparked the public's interest. This research study aimed to evaluate Indian respondents' knowledge of cryptocurrencies and their receptivity (on the basis of several factors) towards the introduction of a regulated cryptocurrency market in India by conducting an online survey using a mixed-method research approach. Among the eight different factors examined, the study found the level of liquidity to be the highest-rated factor amongst respondents in influencing their receptivity. This finding suggests that the Indian public prefers a fast-flowing and smooth trading market, like the cryptocurrency market. Another top-rated factor was the level of security, possibly due to the increasing concern of cyberattacks in the financial markets. Conversely, anonymous usage, inflation risk, and operation cost were the least influential, highlighting the Indian public's unique characteristics. Data revealed that respondents who were finance professionals and had IT experience were generally more receptive to the idea of a regulated cryptocurrency market in India. As a result, additional nuanced marketing strategies targeted at different sectors, especially the finance and IT sectors, as identified through the results include: introducing a regulated cryptocurrency market to the Indian public by highlighting their concern for the level of security and attracting them by highlighting how its regulation by authorities would keep in check the threats it poses.

Analyzing Receptivity of Indian Respondents for Introduction of a Regulated Cryptocurrency Market

The digital revolution has introduced us to many new technologies and inventions that have had a huge impact on several sectors, specifically the financial and business sector. One of these inventions, which has shaken the financial sector, is a new financial instrument called cryptocurrency, also known as virtual currency.

Cryptocurrency (CC) can be defined as any medium of exchange that can be used in financial transactions, both virtual and real (Jani., 2018, p. 2). This type of currency uses digital files as money, i.e., it only exists online. Unlike real money, cryptocurrencies aren't controlled by institutions like the monetary authorities of countries, thus making its control decentralized. Instead, in cryptocurrencies, certified miners on the network —individuals incentivized to verify transactions through rewards of cryptocurrency—verify the ownership and execution of transfers by consensus, i.e., the majority of miners must agree that the transaction is valid. The verification process is done by solving math problems and resolving cryptographic issues in order to ensure that every transaction to be cryptographically encoded and secured so that unauthorized individuals cannot gain access to the data to tamper with it (JavaTPoint., n.d). The online server keeps a complete record of previous cryptocurrency transfers on a “block-chain” — a database that stores data in blocks that are linked together in such a way that every user in the cryptocurrency network sees the whole transaction history. (Giudici et al., 2020) This elaborate system of recording infor-

mation makes it close to impossible to change, hack, or cheat because it is constantly being updated and reviewed by the certified blockchain miners.

The last decade has been marked by the evolution of several cryptocurrencies. The most popular one is Bitcoin. It was first put into circulation in early 2009 by an anonymous entity, working under the pseudonym, "Satoshi Nakamoto". (Badea et al., 2021, p. 1) Aside from Bitcoin, some other used cryptocurrencies are- Dogecoin, Ethereum, Litecoin, and Ripple XRP.

Since their emergence in 2009, cryptocurrencies have captured tremendous attention from various quarters all around the world. To investors, entrepreneurs, and the general public, cryptocurrencies have offered new opportunities and freedom in transactions, due to its decentralization. Unlike fiat money (paper money), most cryptocurrencies have a limited supply, capped by mathematical algorithms. This makes it nearly impossible for any political body or government agency to dilute their value through inflation. (Reiff., 2021, para 5) At the same time, cryptocurrencies are not without their weaknesses. The main reason why cryptocurrency hasn't attained mainstream usage is its highly speculative nature.

By creating an alternative to real money regulated by centralized authorities, cryptocurrencies have also sparked tremendous controversy. For regulators and authorities, virtual money disrupts the historically established economic and financial relations in the world, whereby they are the sole entities within the country to be able to control money supply (Luchkin et al., 2020, p. 1). Specifically, governments use central banks to issue or destroy money out of thin air, using what is known as monetary policy to exert economic influence, as an instrument to manage economic activity. For instance, their deliberate increase or restriction of the amount of money circulating in an economy can exert an impact on investment, spending, and job creation (McWhinney., 2021, para 6). They also dictate how fiat currencies can be transferred, enabling them to track currency movement, dictate who profits from that movement, collect taxes on it, and trace criminal activity. All of this control is lost with the introduction of cryptocurrencies. Concerns about evasion of regulatory and legal oversight are the reasons governments are hesitant to introduce cryptocurrencies as legal tenders.

Yet another player in the financial landscape, which feels threatened by cryptocurrencies, are financial institutions like banks. While some such as HDFC Bank, ICICI Bank and Axis Bank have started accepting cryptocurrencies to have a stake in their growth, others have withdrawn themselves from the crypto bandwagon due to the unclear guidelines by authorities. (Dave et al., 2021, p. 1) If cryptocurrencies were to become a legal tender, physical banks could be rendered obsolete.

Further worsening the situation is Elon Musk's reversal of his policy towards the use of Bitcoin to purchase Tesla cars. In May, Musk tweeted that Tesla would no longer accept Bitcoin- a reversal of its acceptance of the marquee cryptocurrency just two months earlier. As a result, the price of Bitcoin dropped by around 15 percent. (Molla., 2021, para 4) This raised questions about the solidity, volatility, and sustainability of the cryptocurrency market, leading people to realize just how easily the value of cryptocurrency can be swayed, giving rise to this saying: "When Elon Musk tweets, crypto prices move."

Nonetheless, despite their disruptive nature, cryptocurrencies are growing more popular day by day due to cryptocurrencies' easing of financial transactions through the elimination of the intermediaries, reduction of transaction costs, accessibility to anyone with access to the internet, greater privacy, and security. (Giudici., 2020, para 14) Countries such as Singapore and Dubai, and the United States and Germany have already cashed in on this opportunity with regulation.

The stance of these governments is in stark contrast to India's official stance towards cryptocurrency. According to the Reserve Bank of India (RBI) Governor Shaktikanta Das, who made the following statement in February of this year: "Cryptocurrencies could have an adverse effect on financial stability, thus impacting the economy." With the introduction of a virtual currency, it would be rather difficult for the authorities to ensure national, and particularly financial, security. Therefore, cryptocurrency today falls into the list of possible threats to the Indian economy. Indian authorities have been extremely hesitant to introduce cryptocurrencies as a legal tender, due to its insufficient study from legal and economic points of view, lack of an established legal regulatory framework, and

incomplete disclosed potential of its use (Luchkin et al., 2020, p. 1). Therefore, India, unlike the US and Europe, has no institutional participation in cryptocurrency, primarily due to the uncertainty of its regulation (Kannan., 2021, para 18).

The government's unwillingness to explore cryptocurrency should be re-examined, as India, with a population of over one billion strong could stand to gain from a regulated cryptocurrency market. In fact, Bitcoin and other cryptocurrencies have been operating within the country for a number of years with no institutional participation. To date, more than eight million people in India have used cryptocurrency and the numbers are likely to grow exponentially in the coming years, as a result of upcoming economic reforms. The fact that India is a great market for cryptocurrency such as Bitcoin has already been established: many companies and investors are already dealing with and trading in cryptocurrency; countless opportunities still remain to be explored. Clarification and support from the government can turn cryptocurrency into a major asset for the Indian market in the coming future.

Regulation is all the more important because cryptocurrencies are accompanied by risks, such as loss of password and lack of retrieval mechanism for users; compromise of access credentials; volatility in price; and their use in illegal and illicit activities. These risks can be mitigated and managed with appropriate regulation, standard-setting, and advancement in technology. Given that Indian citizens and companies are already engaged in cryptocurrency activity, it is vital that the Indian authorities catch up to this trend and impose control to minimize the negative ramifications of unregulated participation in cryptocurrency trading.

Against the backdrop of clear guidelines by Indian authorities and the utter complexity of cryptocurrencies, the Indian public has been left in a confused and uninformed state. Banks and businesses would need certain levels of regulatory policies to be in place, which offer clarity, before participating in transactions involving these assets. To date, studies about this topic have focused on the problems the global financial system would face, the possible solutions, the efficiency, and the legal ramifications, there hasn't been much focus on considering and evaluating the standpoints of the public on this topic, especially in the Indian context.

A big part of establishing such a market would involve determining whether the Indian public would be receptive to such a market, which is, in turn, related to their level of knowledge. As the primary stakeholders would be the citizens, understanding what they think about cryptocurrencies is of extreme importance and could help decide whether the implementation of a regulated cryptocurrency market in India would be supported or not. Specifically, the nature and receptivity of the public is helpful for authorities determining the boundaries of the establishment of a regulated cryptocurrency market (Luchkin et al., 2020, p. 2).

Description of the Research Study

Research Aim and Research Approach

The aim of this research was to assess Indian respondents' knowledge of cryptocurrencies and their receptivity towards the introduction of a regulated cryptocurrency market in India. The impact of a self-formulated video on the pros and cons of cryptocurrencies for the Indian economy was also evaluated. Through a mixed method approach, an online survey was used to gather data on the impact of the video on the respondents' knowledge and receptivity. The pros and cons factors rated, as identified through an exhaustive review of literature, for further analysis were:

1. Inflation Risk (devaluation of a particular currency)
2. Operation Cost (fees that needs to be given to make transactions)
3. Access (how accessible trading in the markets is)
4. Liquidity (ability of a coin to be easily traded in the markets)
5. Volatility (susceptibility to dramatic market fluctuations)
6. Awareness & Understanding (knowledge and understanding of concept among people)

7. Anonymous Usage (tracking users not possible)
8. Level of Security (no backup method if digital key lost)

First, the quantitative approach was used to:

1. Compare the Indian respondents' ratings of their perception and receptivity before and after watching the video.
2. Identify which of the pros and cons factors based on respondents' ratings had an impact in influencing their receptivity towards the introduction of a regulated cryptocurrency market.

Apart from evaluating the predictive impacts of the factors on the overall sample, the following subcategories — financial profession, and IT knowledge — were also considered. Financial profession was considered to evaluate what differences, if any, can be seen in Indian respondents' perspectives towards the aforementioned factors when compared to their counterparts with limited financial knowledge. People with financial professions may be quicker to understand the concept and more receptive towards a regulated cryptocurrency market. Similarly, the differences in the effect of each factor on the receptivity of the respondents' who had an IT experience and did not have IT experience were evaluated. This is because respondents with no IT experience are at a relative disadvantage because those with an IT experience would navigate and be able to make use of digital currencies more easily, thus being more receptive.

The sets of hypotheses are as follows:

1a. *Null hypothesis*: There are no differences between the Indian respondents' mean ratings of their knowledge of cryptocurrencies before and after watching the video.

1b. *Alternative hypothesis*: There are differences between the Indian respondents' mean ratings of their knowledge of cryptocurrencies before and after watching the video.

2a. *Null hypothesis*: There are no differences between the Indian respondents' mean ratings of their receptivity towards cryptocurrencies before and after watching the video.

2b. *Alternative hypothesis*: There are differences between the Indian respondents' mean ratings of their receptivity towards cryptocurrencies before and after watching the video.

3a. *Null Hypothesis*: The pros and cons factors have no effect on the ratings of the level of receptivity.

3b. *Alternative hypothesis*: The pros and cons factors have an effect on the ratings of the level of receptivity.

4a. *Null Hypothesis*: The financial profession has no effect on the ratings of the level of receptivity.

4b. *Alternative hypothesis*: The financial profession has an effect on the ratings of the level of receptivity.

5a. *Null Hypothesis*: The IT experience has no effect on the ratings of the level of receptivity.

5b. *Alternative hypothesis*: The IT experience has an effect on the ratings of the level of receptivity.

Data Collection

In order to gather the data for this research study, two key steps were undertaken. First, a video was developed. To do that the following steps were taken:

1. To form a basic understanding on the topic, a short course from UPenn called "Cryptocurrency and Blockchain: An Introduction to Digital Currencies" was completed on Coursera.

2. Second, scholarly articles and other research papers that contained source materials for the topic were read and studied.
3. Finally, a webinar hosted by an expert (Kamal Gaur) was attended to understand new perspectives and insights.

Next, data was collected through an online questionnaire.... (see Appendix A) Targeted exclusively at Indian respondents, the questionnaire comprises 3 key sections, where respondents were instructed to rate their receptivity and perceptions.

The survey was distributed through online means. A “Participation Invitation Letter” was sent out in the form of a WhatsApp message to invite potential respondents to take part in the survey... (see Appendix B) Ultimately, 131 completed the survey.

Data Analysis

Descriptive Statistics were run to evaluate the mean ratings of the factors. Furthermore, a one-way ANOVA was run on the data to identify whether the differences in the means are statistically significant. The responses were graphed on a bar chart to show a clearer picture of the distribution of the ratings. Paired T-tests were run to compare the change in mean ratings before and after watching the video on cryptocurrencies. Then, a Multiple Regression analysis was conducted to identify the factors whose ratings by the respondents impacted their final ratings of their receptivity towards the introduction of a regulated cryptocurrency market. Finally, the analyses of the qualitative responses to the open-ended questions were discussed to enrich the analyses of the quantitative results.

Results and Discussion

In this chapter, the results from the statistical analyses, as outlined in the “Description of Research Study” section, are presented and examined in detail. The implications of the research outcomes pertain to the current knowledge of Indian respondents and evaluate the influencing factors on the respondents’ receptivity towards a regulated cryptocurrency market; the impact of having an IT background or prior financial professional experience on the final receptivity of a respondent; as well as the discrepancy between the ratings of the factors before and after watching the video.

Evaluation of Influence of Factors on Indian Respondents Receptivity for the Introduction of a Regulated Cryptocurrency Market

This section explores the relative inferential influence of eight factors on Indian respondents’ opinions on the introduction of a regulated cryptocurrency market. Based on Table 1, the factors, presented in order of influence from the most important to the least, are as follows: liquidity ($M = 5.52$; $SD = 1.74$); level of security ($M = 5.44$; $SD = 1.86$); access ($M = 5.43$; $SD = 1.64$); awareness and understanding ($M = 5.36$; $SD = 1.72$); volatility ($M = 5.34$; $SD = 1.73$); anonymous usage ($M = 4.83$; $SD = 1.80$); inflation risk ($M = 4.66$; $SD = 1.57$); and operation cost ($M = 4.58$; $SD = 1.79$).

Table 1 : Descriptive Statistics: Influence of Factors on Respondents' Receptivity

	Mean	Standard Error	Median	Standard Deviation
Inflation Risk	4.67	0.14	5	1.57
Operation Cost	4.58	0.16	5	1.79
Access	5.44	0.14	6	1.64
Liquidity	5.52	0.15	6	1.75
Volatility	5.34	0.15	6	1.73
Awareness & Understanding	5.36	0.15	6	1.72
Anonymous Usage	4.83	0.16	5	1.81
Level of Security	5.45	0.16	6	1.86

A one-way ANOVA test was run to determine whether the differences in mean are significant. As shown in Table 2, the results showed that the differences in the importance of factors are significant: $F(6.54) =$ (higher than the F critical value of 2.01), $p < .05$.

Table 2: One-way ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	138.32	7	19.76	6.54	1.38E-0	2.01
Within Groups	3162.03	1048	3.01			
Total	3300.36	1055				

It is interesting to note that the general mean ratings are high across the board for all factors, ranging from 4.58 to 5.52 out of 7. This finding suggests that although some factors may be more important, none of the factors should be entirely ignored if a regulated cryptocurrency market was introduced in India since all the factors play a role in the respondents' receptivity.

Liquidity ($M = 5.52$) and level of security ($M = 5.44$) are the top two important factors rated by the respondents towards introducing a regulated cryptocurrency market in India. Both factors have a huge influence on the receptivity of the respondents, However, it is important to note that the former factor helps improve the final receptivity, whereas, the latter in turn reduces the receptivity. This is mainly because, unlike already existing financial markets, the cryptocurrency market's high liquidity nature allows people to enter and exit the market very quickly and smoothly. It is a factor that helps increase the receptivity of the Indian respondents and thus bodes well for the already existing cryptocurrency traders. Respondents such as the one below expressed their views on the cryptocurrency market and its acceptance.

"The underlying tech of Cryptocurrency is blockchain- a decentralized system that ensures transparency, democratic ownership, and indelible recording and does away with a lot of threats posing the current fintech space. Crypto acceptance and regulation is a matter of when and not if."

“Taking into account all the rewards and risks associated with it, I feel regulation is important for the initial stages of the cryptocurrency market. As it grows over time, the advantages and disadvantages get clearer, and (the government) will be able to improve upon it further.”

While on the other hand the lack of retrieval methods, if the digital private key is lost, is one of the main roadblocks in the acceptance of the cryptocurrency market. In simple words, losing the private keys of a cryptocurrency wallet means you lose all the associated data and financial assets in your wallet permanently. Users prefer having a provision for restoring their data and resetting their passwords, which non-crypto markets provide them. The level of security is a conundrum that proves as a hindrance to the users, thus reducing their receptivity. Respondents such as the one below have expressed their concerns about security and privacy issues.

I'm a bit skeptical of the idea of a regulated cryptocurrency because of all the privacy concerns associated with it and the lack of authority on it.

Conversely, the three lowest factors were anonymous usage ($M = 4.83$); inflation risk ($M = 4.67$); and operation cost ($M = 4.58$). The lack of importance of these three interrelated factors may be respectively attributable to the following reasons. Anonymous usage is mainly important to those who are involved in illegal activities, as for those who use legal sources of money for legal uses are indifferent to whether their anonymity is maintained or not.

As for the inflation risk, in the recent past, it has been very low and almost negligible in India. The graph (refer to fig 1) based on data from World Bank (World Bank., 2021) shows the inflation rate for the last five years in India. Such a low rate of inflation corresponds to why the rating of this factor in influencing the receptivity of individuals would have been relatively low.

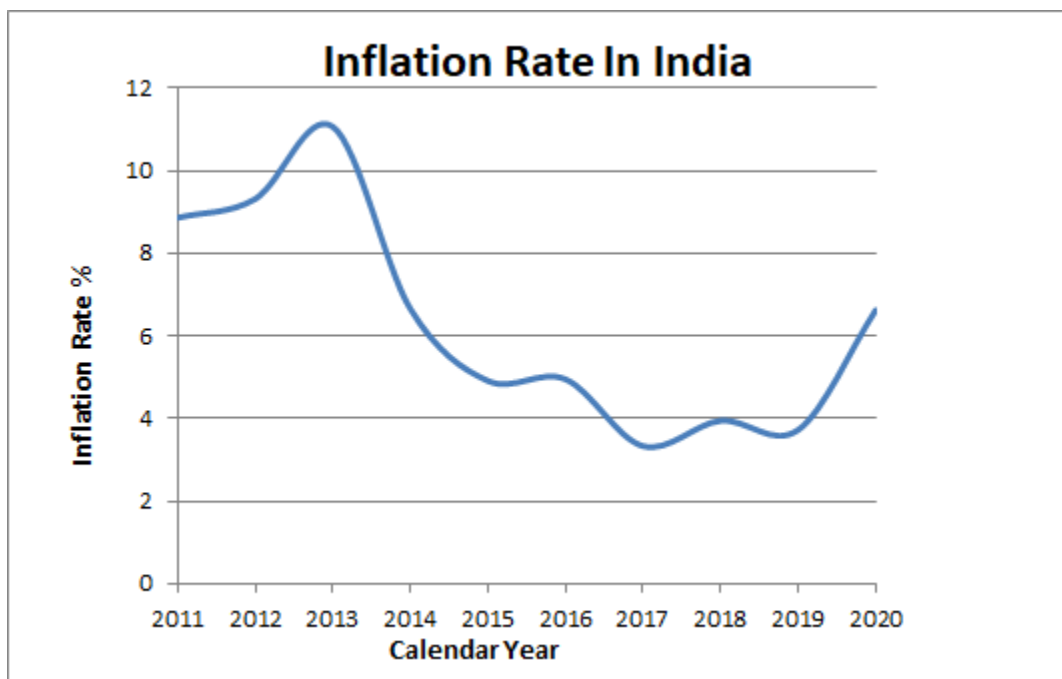


Fig 1: Inflation rate in India (%) from calendar year 2011 to 2020.

The operation cost may have been considerably lower than other factors because the operation cost is actually present in the cryptocurrency markets as well, just not directly like it is in the non-crypto currency markets. The

operation cost is hidden as the miners are rewarded in the form of cryptocurrency tokens which increases the supply, hence, ultimately adding the operation cost. Another reason could be that the operation cost in fiat currency trading is also relatively reasonable, resulting in it being not very significant in the short term and hence not affecting the receptivity as much as other factors.

Impact of Factors on the Receptivity of Respondents'

A multiple regression analysis was conducted to predict the effects of the respondents' ratings of the influencing factors on their receptivity. Of the eight factors, only inflation risk and liquidity were found to be statistically significant and associated with how receptive people are towards the idea of a regulated cryptocurrency market in India. (refer to table 3)

Table 3: Multiple Regression: Impact of Factors on the Receptivity of Respondents'

Regression Statistics	
Multiple R	0.52
R Square	0.27
Adjusted R Square	0.23
Standard Error	1.54
Observations	132

ANOVA

	df	SS	MS	F	Significance F
Regression	8	109.31	13.66	5.78	0.00
Residual	123	290.57	2.36		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.77	0.66	4.19	0.00	1.46	4.07	1.46	4.07
Inflation Risk	-0.30	0.10	-3.16	0.00	-0.49	-0.11	-0.49	-0.11
Operation Cost	0.15	0.08	1.85	0.07	-0.01	0.32	-0.01	0.32
Access	0.11	0.11	1.01	0.31	-0.11	0.33	-0.11	0.33
Liquidity	0.36	0.10	3.44	0.00	0.15	0.56	0.15	0.56
Volatility	0.07	0.09	0.71	0.48	-0.12	0.25	-0.12	0.25
Awareness & Understanding	0.07	0.11	0.66	0.51	-0.14	0.28	-0.14	0.28
Anonymous Usage	0.02	0.08	0.27	0.79	-0.14	0.19	-0.14	0.19
Level of Security	-0.09	0.09	-1.01	0.32	-0.28	0.09	-0.28	0.09

Influence of Having a Financial Profession on Receptivity of Respondents'

Additional analyses were conducted to provide a more detailed picture of the respondents' differences by splitting the respondents between finance professionals and ones with an IT background. We begin with the finance professionals.

Table 4: Descriptive Statistics: : Receptivity of Respondents' who are Finance Professionals and those who are Non-Finance Professionals

Non-Finance receptivity		Finance Receptivity	
Mean	4.77	Mean	5.63
Standard Error	0.16	Standard Error	0.32
Median	5	Median	6
Mode	5	Mode	7
Standard Deviation	1.69	Standard Deviation	1.77
Sample Variance	2.88	Sample Variance	3.19
Kurtosis	-0.25	Kurtosis	0.66
Skewness	-0.66	Skewness	-1.27
Range	6	Range	6
Minimum	1	Minimum	1
Maximum	7	Maximum	7
Sum	487	Sum	169
Count	102	Count	30
Confidence Level(95.0%)	0.33	Confidence Level(95.0%)	0.66

It can be seen that respondents' who were finance professionals generally have a greater affinity towards the introduction of a regulated cryptocurrency market. Thus this leads us to believe that they are more prone to participate in cryptocurrency trading in a regulated market in comparison to their non-finance counterparts.

This may be because of their already existing knowledge and expertise in the field which would make the transition from trading in the already existing financial markets to the cryptocurrency market a lot easier and smoother for them.

According to the World Finance Review, understanding the basics and the theoretical aspects of trading is important before investing in cryptocurrencies. (Jackson., 2021, para 4) Understanding the basics such as spread charts, candlestick charts, depth, order books, and other trading terminologies used in the financial landscape is a must before diving into cryptocurrency trading. This suggests that because finance professionals are familiar with the basics of trading, they may be more open to the idea of trading in the cryptocurrency markets since they would not have to start from scratch and already have experience in trading digital assets. Respondents such as the one below have expressed their concerns about security and privacy issues.

Cryptocurrency and its trading has become very popular in India and it's time the financial system accepts and integrates it. For that, there would be regulation needed for the protection of parties.

It is important to note, however, the difference in the means of both groups is not very high (less than 1) which further elicits the conclusion that having a finance profession does not play a very big role in projecting the receptivity of Indian respondents'. This might be because the cryptocurrency market brings a completely new tech-

nology- blockchain- that has never been seen before and is in fact very new to both groups. Having financial knowledge is an important aspect, but because the cryptocurrency market is dependent on many other more important factors, it becomes a very tiny factor in successful cryptocurrency trading. Hence, it is not a very accurate indicator to predict the receptivity of the Indian public.

Influence of Having an IT Background on Receptivity of Respondents’

Table 5: Descriptive Statistics: Receptivity of Respondents’ who do not have an IT Background and those who have an IT Background.

Non IT Receptivity	
Mean	4.59
Standard Error	0.19
Median	5
Mode	6
Standard Deviation	1.77
Sample Variance	3.13
Kurtosis	-0.56
Skewness	-0.56
Range	6
Minimum	1
Maximum	7
Sum	386
Count	84
Confidence Level(95.0%)	0.38

IT Receptivity	
Mean	5.62
Standard Error	0.21
Median	6
Mode	7
Standard Deviation	1.51
Sample Variance	2.28
Kurtosis	0.83
Skewness	-1.10
Range	6
Minimum	1
Maximum	7
Sum	270
Count	48
Confidence Level(95.0%)	0.43

It is clearly visible that respondents with an IT background are more receptive towards the introduction of a regulated cryptocurrency market in comparison to their non-IT background counterparts. This leads us to assume that having an IT background and experience improves the receptivity of the Indian public.

One of the reasons for this might be because the blockchain technology on which cryptocurrency trading runs is extremely new which makes it confusing for the majority. For people with previous IT knowledge and background- it is easier to grasp and understand the concept of blockchain technology.

Since people with previous IT experience are already familiar with computer technology, they might be more open to new technological advancements such as cryptocurrency trading as it is not too out of their comfort zone. While for people with no IT background, diving straight into cryptocurrency trading might pose as more of an obstacle. Not having a computer science or coding background, it's likely that some aspects of blockchain technology will be a challenge for one to parse out. Because technology is a big part of cryptocurrency trading, people with non-IT backgrounds may be more apprehensive towards it and hence less receptive.

Influence of Self-Made video on the Knowledge of Respondents

Paired T-tests were conducted to evaluate and predict the effects of the self-made video on the respondents’ ratings of their knowledge and receptivity.

Table 6: Paired T-test: Knowledge of Respondents' before and after watching the video

	Pre-Video knowledge	Post-Video knowledge
Mean	3.52	5.00
Variance	2.70	1.76
Observations	132	132
Pearson Correlation	0.58	
Hypothesized Mean Difference	0	
df	131	
t Stat	-12.27	
P(T<=t) one-tail	7.82E-24	
t Critical one-tail	1.65	
P(T<=t) two-tail	1.56E-23	
t Critical two-tail	1.97	

These results provide statistics that show that the video in fact did help increase the knowledge of the Indian public towards a regulated cryptocurrency market in the country. The average rating of the knowledge of the Indian respondents went up from 3.5 to 5.

This helps conclude that there is cause to believe that showing the video to an Indian respondent will likely increase their knowledge regarding cryptocurrencies.

Influence of Self-Made video on the Receptivity of Respondents

Table 7: Paired T-test: Receptivity of Respondents' before and after watching the video.

	Pre-Video receptivity	Post-Video receptivity
Mean	4.02	4.96
Variance	3.44	3.05
Observations	132	132
Pearson Correlation	0.65	
Hypothesized Mean Difference	0	
df	131	
t Stat	-7.23	
P(T<=t) one-tail	1.79E-11	
t Critical one-tail	1.65	
P(T<=t) two-tail	3.58E-11	
t Critical two-tail	1.97	

The above statistics reveal that there is a slight improvement in the ratings of Indian respondents regarding their receptivity towards a regulated cryptocurrency market. The average rating of the receptivity of the Indian respondents went up from 4 to 5. Respondents such as the one below expressed their thoughts on the video.

(The video was) Very helpful. Regulated means better rules around usage and more awareness in people and it can be helpful as well as a quick way of transaction.

I'd love to have follow-up videos that go into the depth of different nuances, specific to my country (India), and profession (the social impact sector) - basically how can I ensure I'm up to date with what's currently happening and still don't lose out.

These qualitative responses go on to show that it is important to cover and explore different aspects of a regulated cryptocurrency market while introducing it in the unique Indian market.

Conclusion

This research study aimed to evaluate the importance of factors in influencing the Indian public receptivity towards a regulated cryptocurrency market. Based on the results, every null hypothesis is rejected. Liquidity and level of security were rated as the most important factors influencing the respondents' attitudes towards a regulated cryptocurrency market. Conversely, anonymous usage, inflation risk, and operation cost had generally lower ratings.

There are some noteworthy distinctions when examining the respondents' ratings as a combined group, finance professionals, non-finance professionals, respondents with an IT background, and respondents with a non-IT background. These findings can help the government structure and develop its strategies for when they choose to introduce a regulated cryptocurrency market in India, as discussed below.

Indian respondents as a whole

Overall, the results illustrate that liquidity and level of security are the most critical factors that Indian respondents consider with respect to the introduction of a regulated cryptocurrency market in India. In India, we need to consider that many people are unaware of how the cryptocurrency market functions. Lack of knowledge about it and the spread of rumors about cryptocurrency can cause confusion and apprehension amongst people. Specifically, respondents had pinpointed that they required more knowledge with regards to the topic:

Have just heard about it don't really don't know about it.

I've heard about it a lot, but don't really know about it in the detail.

The Indian respondents, who are well aware of the cryptocurrency market and its liquidity, would likely be more receptive to the introduction of a regulated cryptocurrency market than their counterparts who are unaware. Therefore, the government should popularize the idea of cryptocurrencies to the Indian population by highlighting its high liquidity and the benefits that provide.

If the government was to consider introducing a regulated cryptocurrency market in India then it needs to use an objective approach while targeting the Indian population. Specifically, the high ratings of level of security and concerns over it can be explained by the fact that the cryptocurrency market unlike current financial markets does not have proper monitoring and policies by authorities that keep in check its extent of usage and help maintain its security. Therefore, these results highlight that the Indian population needs to be targeted as a whole. The Indian government could consider the following recommendations in addressing this particular audience:

- 1) *The Indian government can introduce a campaign about cryptocurrencies through radio, television, social media, newspapers, and other popular media outlets.* Instead of just initiating new policies about cryptocurrencies, the government should make the Indian population more aware of the functioning of a cryptocurrency market while talking about its benefits and gradually increasing worldwide usage and acceptance. This would popularize the idea of cryptocurrencies and also remove any myths that currently surround the topic.
- 2) *The government should put a special emphasis on how its regulation by authorities would keep in check the threats it poses.* As the exposure and popularity of cryptocurrencies increases within families, it is likely that concerns about the level of security will also increase. The government should keep this concern in mind while introducing policies and regulations and try and eliminate security concerns as much as possible. This would make the idea of introducing a regulated cryptocurrency market in India more widely accepted by the masses.

Non- Finance and Finance Professionals

The most important difference between the finance and non-finance professionals was that of the difference between receptivity. The finance professionals were generally more receptive to the idea of trading in regulated cryptocurrency markets than their non-finance counterparts. Therefore, when the government focuses on introducing a regulated cryptocurrency market in India, they should create market strategies that will appeal to both groups. Based on this information, the government should consider the following while targeting this particular segment:

1. *The Indian government can start by introducing cryptocurrencies in the financial sector as a pilot test run.* Incorporating the usage of cryptocurrencies in a regulated environment in sectors such as banking, stock markets, etc would give the government a basic idea of how a regulated cryptocurrency market would realistically function in India on a larger scale. It would make them aware of the problems faced and the actual usage of cryptocurrencies by the Indian public in day-to-day life.

Non-IT and IT Experience

The results for the non-IT experience respondents illustrated that they were generally more apprehensive about the introduction of a regulated cryptocurrency market in India than respondents with IT experience. This depicts that on average having IT experience increases the overall receptivity of an individual. This finding suggests that the government should implement strategies that will help curb the disparity between these two groups. Based on this information, plant-based companies should consider the following while targeting this particular segment:

- 1) *The Indian government can start by introducing cryptocurrencies in the IT sector as a pilot test run.* Incorporating the usage of cryptocurrencies in a regulated environment in certain designated online technology services would give the government a basic idea of how a regulated cryptocurrency market would realistically function in India on a larger scale. It would make them aware of the problems faced and the actual usage of cryptocurrencies by the Indian public in day-to-day life.

With rising receptivity towards a regulated cryptocurrency market, India presents a unique market for cryptocurrency trading. The receptivity of the Indian public is likely to play a significant role in the adoption of a regulated cryptocurrency market in India. If the Indian government were to carefully consider the Indian public's specific preferences, the various segments and then employ targeted strategies to promote the introduction of a regulated cryptocurrency market, they would be well-positioned to capitalize on the rapidly growing cryptocurrency market.

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