

# **Fintech: People Awareness and Perception of Cryptocurrency—A Study in Coimbatore City**

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**Abstract:** With an advancement in technology, decentralized form of currency has emerged which is being used in transactions for various purposes, known as Crypto currency. Cryptocurrency, an encrypted digital currency created for the purpose of peer-to-peer transaction. It uses cryptography and blockchain technology to secure and keep track of each and every transaction in the whole network. The cryptocurrency even after its existence has not attained an established image and actual currency status as people are skeptical about its worth. At this juncture, people awareness and perception towards cryptocurrency, technology and its platform is the need of the hour to determine its adoption in the near future. Thus, a research paper has proposed to know the people awareness and perception level of cryptocurrency in Coimbatore as it falls in Tier II city, the study has been carried out. To attain the objectives of the study, primary data has collected from a Sample of 160 respondents, chosen using proportionate random sampling method. Statistical Tools such as percentage analysis, chi-square test, t-test, ANOVA have applied to analyze the data. The study outcome reveals that people in general are aware of the Cryptocurrency and Block chain technology. Among the socio-economic profile factors, the factors namely, education qualification and occupation have robustly influenced crypto currency technology. Besides, age group of the respondents has significant difference with their perception on crypto currency. The study recommended that policies of the Indian Government and its regulatory authority should come forward and take steps to regulate the transactions of Crypto currency as an investment option for global economic empowerment.

**Keywords:** Digital currency, encryption, block chain technology, awareness, perception

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## **1. Introduction**

Cryptocurrency gained more prominence recently regarding its regulation and usage as a exchange medium. The present digital era has brought some key dynamic changes in the global economic situation as well as in the context of traditional financial operations. Technology is changing the way businesses it functions. People are buying and selling the products by using internet. Moreover, payment for the transactions is completed by using internet. Thus, the physics of money transformed the paradigm of human life. The human race started exchanging goods for goods, later traded against salt, stone weapons and so on, then traded with gold, and currently the currency exchange system is in practice. The block chain technology is expected to remodel the entire existing financial system and transpose the global business model. Many crypto currencies are introduced in the market but it is not yet created or regulated by any central authority even though it has gained trust of many people because of its tremendous value appreciation. Few countries' accept and recognize the crypto currency for the exchange where many

developing countries like India are in indecisive mode. The Government of India and the Indian Central Bank, the Reserve Bank of India, has long recommended a complete ban on all crypto currencies like bit coin and ether due to warning of their potential to destabilize the country's monetary and fiscal stability. But, the Union government introduced Central Bank Digital Currency (CBDC) in Budget 2022 which will strengthen the digital economy. It is planned that the RBI release a Digital Rupee based on blockchain and other technologies which will be issued this year.

Besides, several determinants have been examined to test adoption, attitude and awareness always inclined to be the most usual antecedent to elucidate actual behavior. This is partially because of the various technology adoption models that influence the mentioned determinants. Thus, this research study aimed at analyzing the awareness level and perception of people towards crypto currency and how it may result to eventual decision to adopt. This research study will be supporting in providing baseline information on the possible determinants that measure the level of success in the introduction of new innovative exchange systems such as the topic understudy. In addition, the results of the study will also substantiate valuable information to throw light on the possible extent of crypto currency adoption, based on identified awareness and perception, in developing economies like India.

## **2. Technology Acceptance Theories and Literature Review**

Awareness can be defined as a financial awareness as “the ability to make sound judgments and to make effective decisions regarding the use and management of money”. Social demographic is a general description of individuals that shows the condition of individuals or groups in a study. Social demographics are considered to have a role in individual behavior when facing a decision that has a financial impact and differences in demographic factors that can lead to differences in a person's behavior [1]. Nurbarani and Soepriyanto [2] stated that Crypto currency is a peer-to-peer digital currency that is exchanged using crypto-graphic principles that are systematically arranged to form various passwords or codes to print virtual currency and the existence of public and private keys, which are usually used to move cryptocurrency from one person to another. According to Parasuraman [3], Technology readiness refers to people's willingness to adopt and use new technology in their personal and professional lives. In the technology acceptance literature, the phrase “Attitude” refers to a user's intention and desire to use technology in the future. As the study's outcome variable has demonstrated itself to be a good indicator of intention and actual technological use, the awareness and attitude to use technology has been chosen [4, 5]. The Technology Acceptance Model (TAM) [6], the final version of TAM [7], is one of the most prominent and commonly employed theories, and it addressed the user's behavioral intention to use and to adopt new technology. In the Unified Theory of Acceptance and Use of Technology (UTAUT), the effort expectancy, performance expectancy, social influence, and enabling circumstances are the four determinants of users' behavioral intention [8]. In the case of cryptocurrencies and bitcoin, studies showed that the perceived usefulness is the crucial element in the intention of whether or not to use them for electronic payments [9]. In another cryptocurrency study based on theory of planned behavior (TPB) the subjective rules (social influence) and perceived behavioral control (as simple or difficult to use cryptocurrencies) are crucial [10]. Individuals who see cryptocurrencies as easy to use and get favorable social influence over their use are more inclined to use them. Gupta and Bagga [11] stated that Millennials are unaware about crypto currency and hence, financial literacy and educating them will significantly help in adoption of crypto currency in the near future.

## **3. Objectives of the Study**

- 1) To study the socio-economic profile of the respondents and to identify the most familiar crypto currency among people in Coimbatore city.
- 2) To analyze the awareness level of respondents in Coimbatore city about crypto currencies.
- 3) To analyze the perception of the respondents towards crypto currency.

## **4. Hypothesis Development**

H<sub>01</sub>: The mean rank of crypto currencies does not differ significantly among the respondents

H<sub>02</sub>: There is no significant association between awareness about crypto currency technology with socio-economic profile of the respondents.

H<sub>03</sub>: There is no significant difference between perception of respondents towards crypto currency with their socio-economic profile factors.

## 5. Methods

The nature of this research study is quantitative to examine the relationship between variables. In this study, the relationship between variables examined on the basis of previously proposed theories, models, and hypotheses. Quantitative research is therefore, suitable for this study [12].

### 5.1. Population and Sampling Technique

With Cryptocurrencies, known as digital currency based on blockchain technology, as indicated in the introduction, it is necessary to have a minimal degree of technical and financial expertise to comprehend the way to work with it in fundamental terms. Thus, this study focused on adults, who already graduated or pursuing degrees in colleges, and investors in order to gather data as they are the most engaged, informed, and valuable current or potential investors of financial markets. Hence, proportionate random sampling method has used to select the sample respondents. Coimbatore Corporation is separated into five zones namely North, South, East, West and Central. A proportionate of 32 respondents from each zone has been randomly selected to participate in this survey.

### 5.2. Sample Design and Data Collection

The sample size of the study is 160 respondents, see details in Table 1.

Table 1. Response Rate of the Questionnaire

Response	Frequency/ rate
No. of Questionnaires shared	200
Questionnaires filled	160
Questionnaires not filled	40
Response rate	80%

## 6. Findings

The following are the findings obtained from applying several statistical tools of analysis.

### 6.1. Percentage Analysis

Table 2. Socio-Economic Profile of the Respondents

Socio-economic profile factors	No of respondents	Percent (%)
Age	Less than 20 years	27.5
	<b>21-25 years</b>	<b>35.6</b>
	26-30 years	19.4
	More than 30 years	17.5
Gender	<b>Male</b>	<b>53.8</b>
	Female	46.2
Educational Qualification	Student	5
	<b>Graduate</b>	<b>48.1</b>
	Post Graduate	31.9
	Professional	15
Occupation	Business	14.4
	<b>Employed</b>	<b>33.1</b>
	Professional	23.8
	Others	28.8
Annual Income	<b>Rupees 5 -10 Lakhs</b>	<b>49.4</b>
	Rupees 11-15 Lakhs	25
	More than 15 Lakhs	25.6

It is observed from Table 2, 35.6% of the respondents are in the age group of 21 to 25 years, 53.8% of the respondents are male, 48.1% of the respondents are graduate, 33.1% of the respondents are employed and 49.4% of the respondents earn an annual income of between Rs 5 to 10 Lakhs.

Table 3. Friedman Rank Test-Awareness about Crypto Currency

Crypto currency	Mean Rank	Rank
Bit coin (BTC)	2.84	1
Tether (USDT)	3.02	4
Ethereum (ETH)	2.86	2
USD Coin (USDC)	3.40	5
Binance Coin (BNB)	2.88	3

Table 3 illustrates that the awareness level of respondents for crypto currencies. The respondents have given the highest priority to "Bitcoin" with mean of (2.84) followed by the "Ethereum" with mean of (2.86), "Binance coin" with mean of (2.88), "Tether" with mean of (3.02) and "USD coin" has been least prioritised with mean of (3.40). Hence, it is clear that bit coin has been highly aware among the sample respondents (Similar to the finding of [13]).

Table 3. Test Statistics

N	Chi-Square	Df	Asymp. Sig.
160	15.489	4	0.004

(Source: Computed; \*\*, significant at 1% level)

The table infers that, the chi square value ( $\chi^2=15.489, p<0.004$ ) is statistically significant. It implies that the respondents have been varied in the order of assigning the ranks with respect to the order of priority to Crypto currencies. Hence, the null hypothesis "H<sub>01</sub>: The mean rank of crypto currencies does not differ significantly among the respondents" has been rejected.

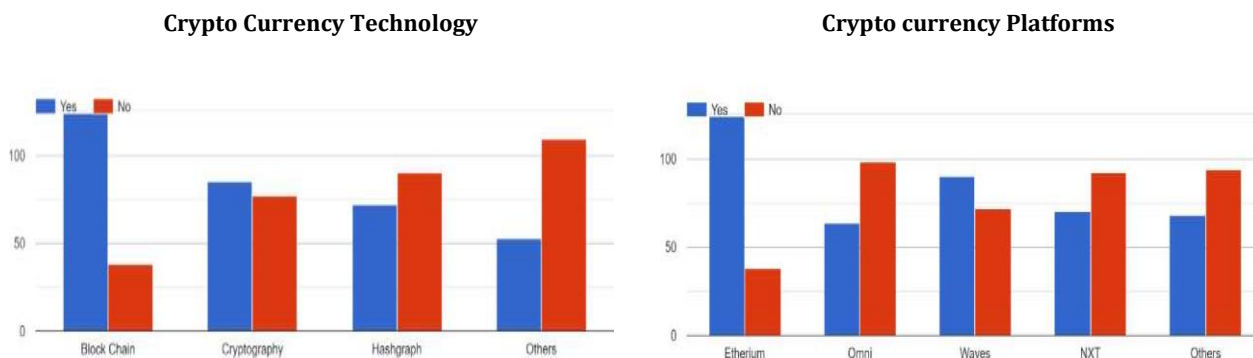


Fig. 1. Crypto currency technology & platforms.

It is observed from Fig. 1 that, most of the respondents are aware of Blockchain technology and Ethereum platforms.

H<sub>02</sub>: There is no significant association between awareness about crypto currency technology with socio-economic profile of the respondents.

It is inferred from the Table 4 that, educational qualification and occupation have a significant association on the awareness about all three Crypto currencies Technology namely, Block chain, Cryptography and Hashgraph. Hence, the null hypothesis has been rejected at 1 per cent level of significance. Age has a significant association with respect to Cryptography and Hashgraph. Hence, the null hypothesis has been rejected at 1 per cent level of significance. Annual income has a significant association on block chain and Hashgraph. Hence, the null hypothesis has been rejected at 1 per cent level of significance. Overall, the null hypothesis "H<sub>02</sub>: There is no significant association between awareness about crypto currency technology with socio-economic profile of the respondents" has been rejected

H<sub>03</sub>: There is no significant difference between Perception of respondents towards crypto currency with their socio-economic profile factors.

Table 4. Socio Economic Profile vs Awareness about Crypto Currency Technology

Socio economic profile		N	Awareness about Crypto currency Technology		
			Block Chain	Crypto graphy	Hashgraphy
Age	Less than 20 years	44	$\chi^2 = 6.758$ P=0.080 (NS)	$\chi^2 = 9.89$ p=0.019 (**)	$\chi^2 = 10.03$ P=0.018(**)
	21-25 years	57			
	26-30 years	31			
	More than 30 years	28			
Gender	Male	86	$\chi^2 = 0.921$ P=0.337 (NS)	$\chi^2 = .687$ p=0.407 (NS)	$\chi^2 = 1.500$ P=0.221(NS)
	Female	74			
Educational Qualification	Student	8	$\chi^2 = 13.625$ P=0.003 (**)	$\chi^2 = .078$ p=0.019 (**)	$\chi^2 = 11.173$ P=0.019(**)
	Graduate	77			
	Post Graduate	51			
	Professional	24			
Occupation	Business	23	$\chi^2 = 10.535$ P=0.015 (**)	$\chi^2 = 11.63$ p=0.009 (**)	$\chi^2 = 9.990$ P=0.019(**)
	Employed	53			
	Professional	38			
	Others	46			
Annual Income	Rupees 5 -10 Lakhs	79	$\chi^2 = 11.167$ P=0.004 (**)	$\chi^2 = 1.923$ p=0.382(NS)	$\chi^2 = 22.157$ P=0.000(**)
	Rupees 11-15 Lakhs	40			
	More than 15 Lakhs	41			

(Source: Computed; \*\*-Significant at 1 per cent level)

Table 5. Socio Economic Profile vs Perception towards Crypto Currency

Socio economic profile factors		N	Mean	S.D	F	Sig.
Age	Less than 20 years	44	2.19	.893	17.313	0.000 (**)
	21-25 years	57	2.76	.977		
	26-30 years	31	3.40	.954		
	More than 30 years	28	3.56	.703		
Educational Qualification	Student	8	2.72	.96	0.489	0.690
	Graduate	77	2.79	1.01		
	Post Graduate	51	3.01	1.00		
	Professional	24	2.86	1.20		
Occupation	Business	23	3.08	.91	1.146	0.332
	Employed	53	2.96	.97		
	Professional	38	2.63	1.08		
	Others	46	2.86	1.11		
Annual Income	Rupees 5 -10 Lakhs	79	2.94	1.03	0.922	0.400
	Rupees 11-15 Lakhs	40	2.68	1.03		
	More than 15 Lakhs	41	2.92	1.06		

(Source: Computed; \*\*-Significant at 1 per cent level)

It is observed from the Table 5 that, educational qualification, occupation and annual income do not have a significant difference with respect to respondents Perception towards Crypto currency. Hence, the null hypothesis has been accepted. Besides, age group has a significant difference with respect to Perception towards Crypto currency. Hence, the null hypothesis “H<sub>03</sub>: There is no significant difference between perception of respondents towards crypto currency with their socio-economic profile factors” has been rejected at 1 per cent level of significance.

## 6.2. Result and its Implications

Among the different crypto currencies stated in Table 2, Bit coin seems to be the most heard crypto currency among the sample respondents. Bitcoin launched in 2009, is the first decentralized crypto currency. Its success led to the launch of several other crypto currencies. Moreover, most of the respondents are aware of Block chain technology and most of them are aware of Ethereum platforms. A block chain is encrypted and it uses public and private keys to maintain a sort of virtual security. It allows a person to safely send money to another person without going through a bank or financial services provider. People perceive block chain as a reliable database ledger. Ethereum is a global, decentralized platform powered by

block chain technology and has smart contract functionality for peer-to-peer network. Education and occupation of the respondents have robust influence on crypto currency technology.

Future of crypto currency in India looks promising and there is ray of hope. Crypto currency has existed in the market for more than two decades. However, people at large do not have a clear picture about crypto currency. Hence, Government in India can take initiative to conduct seminar, workshops and conferences about crypto currencies working principle behind the concept and the technology used which will increase financial technology literacy among people and ensures safety. Social media are interactive digital channels which can be used to create awareness about crypto currency. Uncertainties and unstability regarding the legal status create doubts and fears among the people. Hence, Government should provide for legislation of crypto currencies in India. Indeed, acceptance of crypto currencies by commercial banks and financial institutions will build confidence and trust among people.

## **7. Conclusion**

In recent years, crypto currencies have attracted a lot of attention among general public and investors. The purpose of this study is to determine people's level of awareness and perception of these new age virtual currencies. Based on the data, it can be stated that people in general are aware of the Crypto currency and Block Chain technology and they would like to see it as conducive from Government. As it is well known that Crypto currency is the product of all new age innovative technologies, and many countries of the world have already regulated its use in day to day business and many developing countries are coming forward to regulate its transaction in financial market. Hence, Indian Government and its regulatory authority should come forward and take steps to regulate the transactions of Crypto currency as an investment option for global economic empowerment.

## **Conflict of Interest**

The authors declare no conflict of interest.

## **Author Contributions**

Rajakrishnan Manivel - Study conception and design; G. R. Rajalakshmi - Analysis and interpretation of results; R. Parimaladevi - Data collection; D. Priya - Review of Literature; All authors had approved the final version

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