

AN AWARENESS OF CRYPTOCURRENCY AMONG THE PEOPLE OF AHMEDABAD CITY

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Abstract

Progressive technological development and its associated online applications gave rise to cryptocurrency. Bitcoin is a type of cryptocurrency. There is no physical bitcoin, only balances are kept on a public ledger that everyone can have access to. El Salvador is the first nation in the world to make Bitcoin a legal tender. The Countries like United States, Canada, Australia, European Union, and El Salvador are the counties in the world that have accepted cryptocurrency as a legal status. The objective of a current research paper is to evaluate the awareness level of cryptocurrency among the people of Ahmedabad, to know their nature of investments, analyze the factors that affect investors to make investment decisions, and determine the future of cryptocurrency. The relationship between the demographic factors of the respondents and the awareness of cryptocurrency has been evaluated using the Chi-Square test. The Rank Correlation Method has also been applied to identify the most preferable type of cryptocurrency from an investor's point of view. The survey comprising a well-structured questionnaire with closed-ended and open-ended questions was conducted in Ahmedabad city. The study found out 38% were not interested to invest in cryptocurrency due to the lack of awareness and risk factors associated. Majority of the respondents were dealing with cryptocurrency through Mining/purchasing and dealing with it for one year. They were motivated to invest because of the higher rate of return, speedy and transparent transactions. On the other side, high-risk factor and illegality were two drawbacks demotivated them to make investments in cryptocurrency. 60% investors were fully satisfied with the investment in cryptocurrency. 62% respondents believed that cryptocurrency could be the best effort to make India digitalized. 43% of respondents could see the bright future of cryptocurrency. 68% respondents believed that investment in cryptocurrency was not a speculative activity.

Keywords: Bitcoin, Chi-square, Cryptocurrency, Investment, Rank-correlation.

INTRODUCTION

Word cryptocurrency comprises two terms. Where; crypto means secret or private and currency means the medium of exchange. Nakamoto in the year of 2008 has introduced the world's first digital currency (Bitcoin). It is characterized by the amalgamation of innovative technologies like cryptography and blockchain. Cryptography is the technology where the data have coded by the sender and decoded by the receiver. Blockchain is further associated technology; which provides security to the transaction limits the production of the cryptocurrency and helps to track the transaction in the whole network. Decentralization of cryptocurrency is possible due to blockchain technology only. In India, it was 2013 when cryptocurrency exchange launched Bitcoin. Cryptocurrency provide immediate settlement and international investment. Investors can also diversify the investments and liquidate their investments as per the requirements. Cryptocurrencies have had a rapid rise and subsequently falling over the previous few years. Bitcoin comes under the types of cryptocurrency, which is most popular and valuable among investors. Litecoin, Ethereum, Namecoin, Auroracoin, Monero, and Zcash are the other types falling under the umbrella of cryptocurrency. Almost a decade has been spent on its existence; still, the status has not been identified. Some investors treated it as a normal currency where some investors treated it as a part of the investment portfolio. It has not gained an image as a new aged currency by the majority of countries. Cryptocurrency is not free from certain challenges; its regulation is still awaited across the globe, it has no stable system, volatility is also high, hacking

and security threat are also associated with it, the investment option is costly too. Perhaps along with certain limitations, cryptocurrency is booming over the period of time and it becoming a new source; providing techno-friendly, transparent, and profitable opportunities for investments.

The current study is humble attempt to evaluate the awareness level about the cryptocurrency among the citizen of Ahmedabad city.

LITERATURE REVIEW

Various research papers have been reviewed to find out the gap and conduct the study on it. Literature reviews of some relevant and recent papers are as follows:

- **Peter D. Devries (2016)** analyzed the future of Bitcoin, by using the data of trading in the bitcoin from the year 2013 to 2015. The data were analyzed by the SWOT method. The study concluded that Bitcoin had covered the market as a niche market; it proved the innovative and problem-solving mechanism. A country like Iceland has declared Bitcoin as a national currency. The study found out that cryptocurrency's ability to perform microfinance might fill the economic gap that traditional currency is not able to solve.
- **GartzMadeleine and Ida Linderbrandt (2017)** exploring the possibility, limitations and opportunities of the cryptocurrency in the future and examined whether cryptocurrency could replace the Swedish Krona. The data was collected through both the method, primary and secondary. The study is based on the theoretical framework, which concluded that Sweden could provide technical prerequisites for Bitcoin; but cryptocurrency failed to replace with the traditional currency; the transition in cryptocurrency might be affected Risk bank's possibility to conduct the monetary policies. On the other hand, the complete transition was unfavourable. The conclusion added that cryptocurrency will grow and can gain new market shares but with the coexisted of traditional currency.
- **Mukund Gupta and Teena Bagga (2017)** have conducted a study to evaluate the awareness level of cryptocurrency among the people of India and to analyze the factors that affected the adoption of cryptocurrency. After doing survey of 210 respondents it was found that cryptocurrency has not gained many users or consumers from India. Further, price volatility, absence of intermediaries and brokers, low cost of transaction affected respondents of India to invest in cryptocurrency. The study suggested that if Banks and e-commerce websites accept the cryptocurrency then it will have significant influence on the adoption of cryptocurrency.
- **Anmol Mehrotra and Vanishree M R (2018)** have analysed the awareness level of Bitcoin among the youth of Bangalore and have analysed whether age and gender have any relation with the understanding level and knowledge of Bitcoin. Structural questionnaires were used to collect the data from 50 respondents. The study concluded that Bitcoin has a wide scope in the Indian market. Further, it can be seen that there was a little correlation between the demographic profile (age and gender) and knowledge of cryptocurrency.
- **Neha Parashar and Farida Rasiwala (2018)** have conducted the study aiming to analyse the awareness, perception regarding the acceptance of Bitcoin as a cashless mode, and the future of Bitcoin. The study also analysed the opinions of investors for the government's involvement to make Bitcoin a legal tender. A simple random sampling was used to collect the data from 114 respondents using a well-structured questionnaire. The study concluded that theft of hacking and technical error was the main drawback of the investments; it was the opinion of the respondents that member companies should amplify the standardized KYC norms. On the other hand, it can be seen that the Digital Assets and BlockChain foundation of India (DABF) should lay down the self-regime to regulate the transaction.
- **YiaShuyue, XuaZishuang et al. (2018)** have examined the static and dynamic volatility among the different types of cryptocurrency using the spillover index approach and its variants and LASSO-VAR. The study found out that the types of cryptocurrency volatility and its connectedness fluctuates cyclically, which shows the rise trend after the year of 2016.
- **Yukun Liu and AlehTsyvinski (2018)** have analyzed the risk and returns associated with the cryptocurrency, for which the index of 354 industries of U.S.A. and 137 industries of China have been collected from the different websites. The study found out the strong time-series momentum impact on the investments, which strongly forecasted the return on it. By laying down the importance of block chain technology, it can be said that block chain technology has the potential to affect the index of important industries.
- **Ku Ruhana Ku-Mahamud, Mazni Omar, et al. (2019)** tried to investigate the awareness level about Bitcoin, trust, and adoption level of the blockchain technology among Malaysians. After surveying 304 respondents of Malaysia, it was concluded that Malaysians are at the intermediate level in terms of the awareness level and adoption of the Bitcoin technology, while; some respondents trusted to invest in Bitcoin. They believed that Blockchain technology offered a stable and secured platform.
- **Mark P. Doblal (2019)** aimed to analyse the awareness level of cryptocurrency among the college-going students and the result that affected theirs' decision about adoption. 399 student respondents were collected through the questionnaire. Descriptive statistics and linear regression analyses were used to analyse the data. The result showed that the respondents having the awareness of the cryptocurrency, not having the

same level of desire to invest in it. Because of the volatility, it was not positively accepted as a tool of investment.

- **Shukla S and A Akshay(2019)** have analyzed 106 collected questionnaires from the people of Bangalore on convenience and have studied the awareness and perception level about cryptocurrency. The study has also evaluated the respondents' willingness to choose Cryptocurrency as a tool of investment. The study concluded that the majority of investors were male and had invested in mutual funds, and they had knowledge about cryptocurrency. The investors of the cryptocurrency preferred to invest out of their annual salary i.e., 5% of the annual salary.

After reviewing the papers related to cryptocurrency, it was found that no study was conducted to test the awareness level about cryptocurrency of people of Ahmedabad, hence it was decided to conduct a survey in Ahmedabad with following objectives:

OBJECTIVES OF THE STUDY

The following were the objectives of the study:

- To evaluate the awareness level of Cryptocurrency among the people of Ahmedabad.
- To analyse the factors that affect investors to invest
- To determine the future prospects of Cryptocurrency.
- To establish the relationship between Demographic Variables of the respondents and Awareness of Cryptocurrency.

RESEARCH METHODOLOGY

Research Methodology is the blueprint of the research study. It highlights the objectives of the research study, research design adopted by the researcher, data collection, sampling decisions and the techniques that have been used to analyse the data.

- **Research Design:** The study is based on an Exploratory and Descriptive research design. To understand what cryptocurrency is and what are its forms, secondary data was collected and explored and to know the awareness level of people regarding cryptocurrency, a survey was conducted with a Structured questionnaire.
- **Sampling Design and Research Instrument:** The study is based upon the primary data; where structured questionnaires were distributed to around 200 people of Ahmedabad city, out of which 100 questionnaires were found out to be completed in all respects; and hence the effective sample size of the study is 100 (response rate 50%). The responses were collected using a convenient sampling method.
- **Tools and Techniques:** Descriptive statistics, Rank Correlation and Chi-Square test have been used to evaluate the awareness level of cryptocurrency among the people of Ahmedabad city.

ANALYSIS AND DISCUSSIONS

➤ Demographic Profile of the Respondents

Table 1: Demographic characteristics of the respondents(n=100)

Demographic profile	Features	Frequency	Percentages
Gender	Male	78	78%
	Female	22	22%
Age	Between 20 to 30 year	62	62%
	Between 30 to 40 year	24	24%
	Between 40 to 50 year	12	12%
	Above 50 year	2	2%
Educational Qualifications	S.S.C	3	3%
	H.S.C.	17	17%
	Graduation	52	52%
	Post Graduate	15	15%
	Professional Degree	8	8%
Occupation	Any other	5	5%
	Business	52	52%
	Service	34	34%
	Home maker	5	5%
	Specify	9	9%
Income	Less than Rs.20,000	33	33%

Rs.20,000toRs.40,000	35	35%
Rs.41,000 to Rs.50,000	8	8%
Above Rs.50,000	24	24%

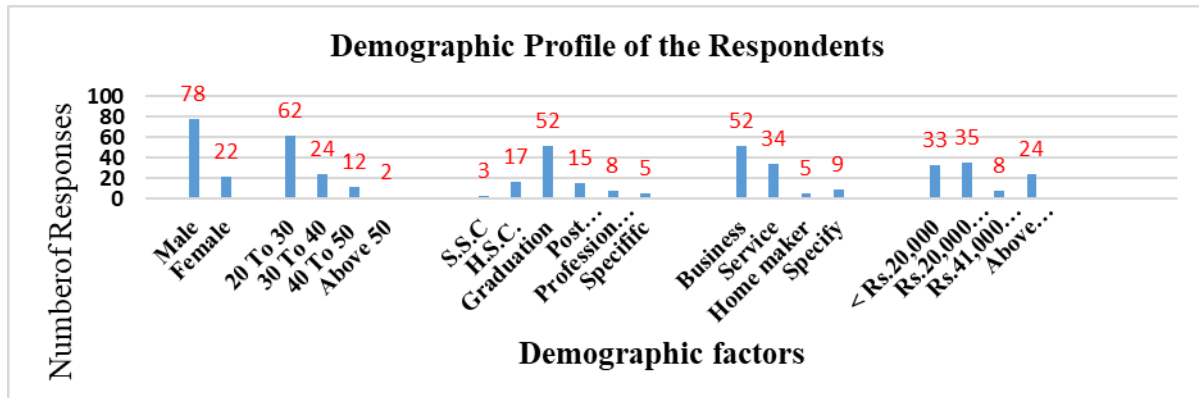


Figure 1: Demographic characteristics of the respondents

➤ Awareness about cryptocurrency among the respondents

Table 2: Awareness about Cryptocurrency

Awareness about Cryptocurrency	Responses (%)
Yes	78
No	22

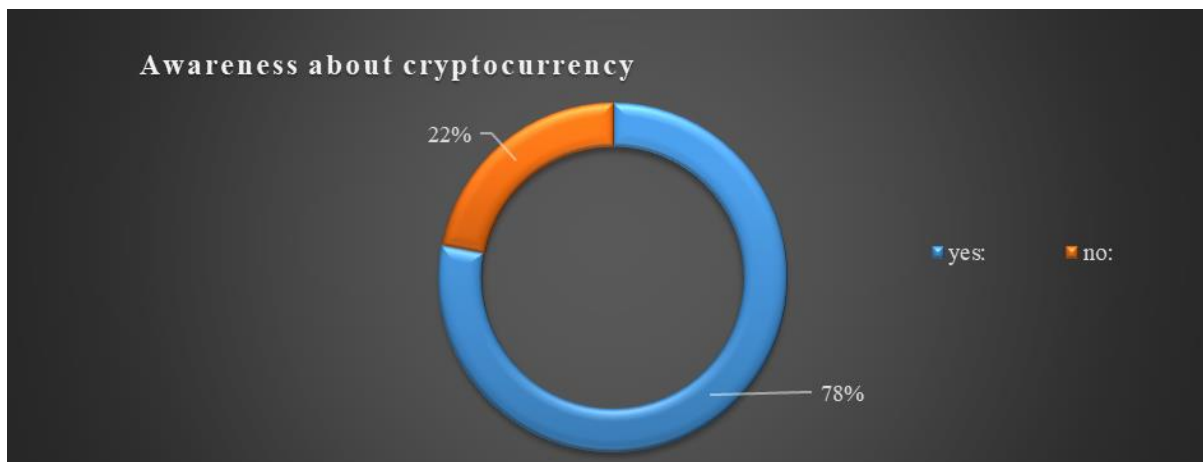


Figure 2: An awareness about the cryptocurrency among the Respondents

➤ Previous investment of the respondents

Table 3: Previous investments made by the respondents

Previous investment	Responses (%)
Pension fund	6
Land and property	11
Gold and Silver	15
Bank Fix Deposits	12
Share Markets	11
Mutual Funds	12
Bonds and other Government securities	4
Post Office Schemes	5
Public Provident Fund	4
Investing in stocks	4
Commodity Market	4

Life Insurance Policies	13
other	0

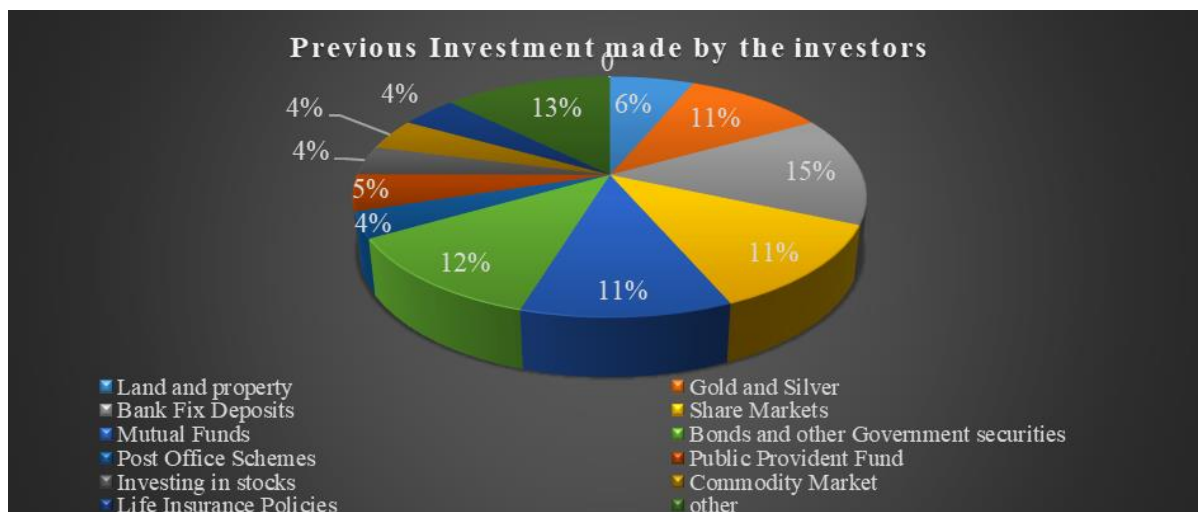


Figure 3: Previous investments made by the respondents

➤ **Investment in cryptocurrency**

Table 4: Investment in cryptocurrency

Investment in Cryptocurrency	Responses (%)
Yes	62
No	38

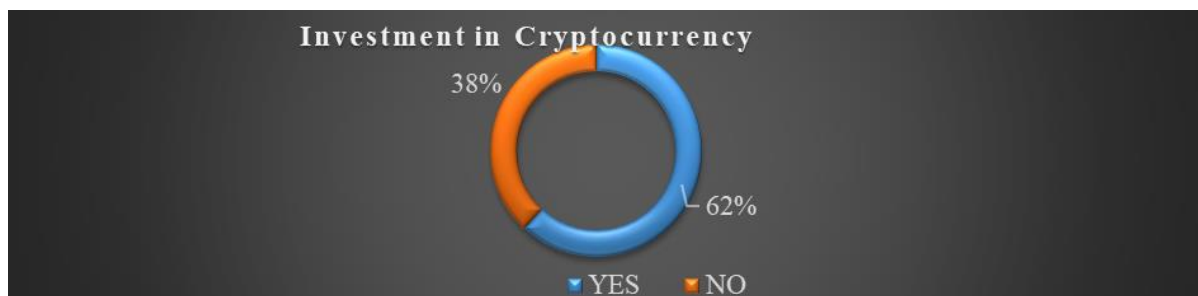


Figure 4: Respondents (in %)-invested in cryptocurrency

➤ **Most preferable types of cryptocurrency**

Table 5: Overall Rank given by the respondents

Types of cryptocurrency	Total	Rank
Bitcoin	667	1
Lite coin	337	2
Ripple	292	3
Monero	277	4
Dash	152	5
ALT coin	141	6
Platin coin	138	7
Dogecoin	135	8
NXT	130	9
Zcash	121	10
Ethereum	117	11

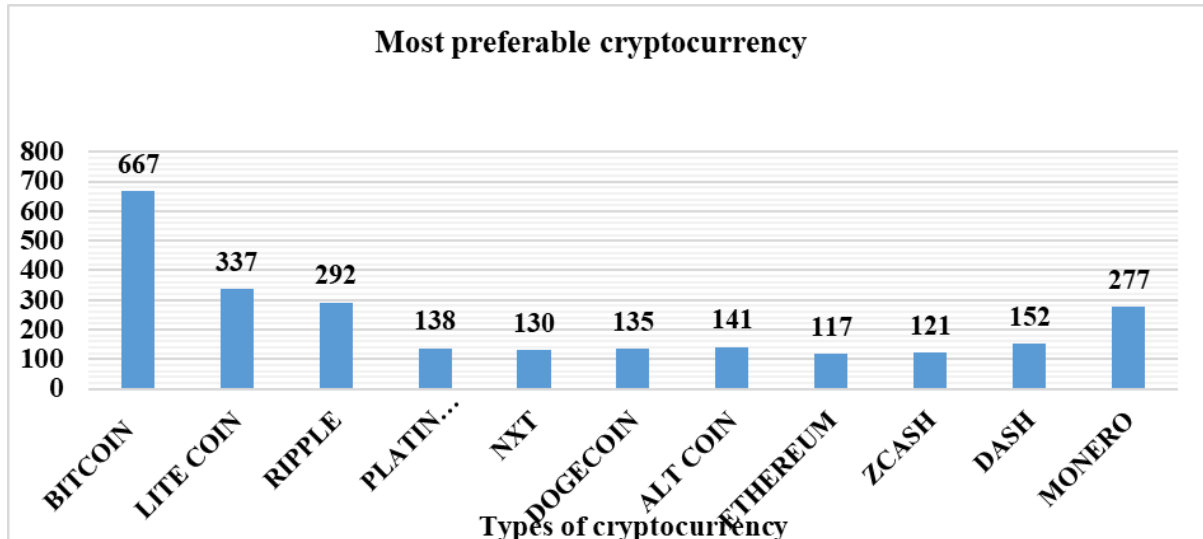


Figure 5: The above chart shows the most preferable cryptocurrency by the respondents

➤ *Factors motivating them to invest in cryptocurrency*

Table 6: Factors that compel to invest in cryptocurrency

Factors that compel to invest in cryptocurrency	Responses (%)
Because it is a Virtual Money	40
Higher Rate of Return	69
New investment option	71
Speedy transaction	50
Anonymity	8

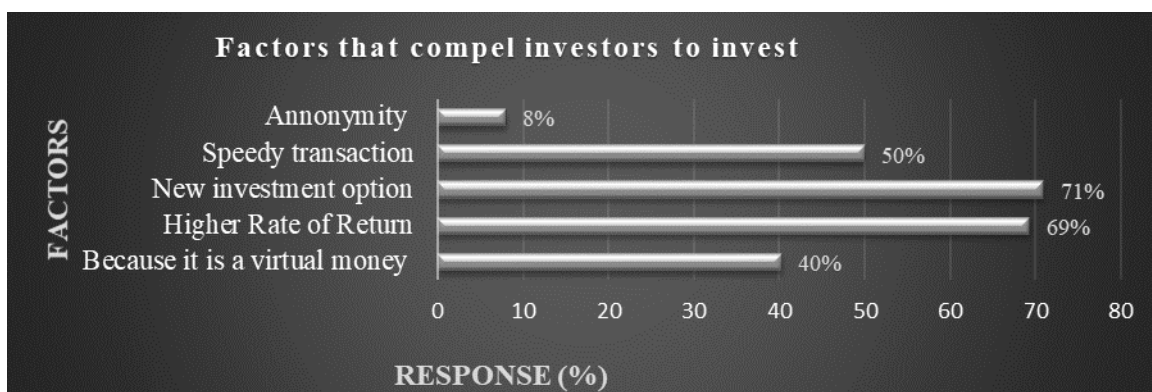


Figure 6: Factors that compels to invest in cryptocurrency

HYPOTHESIS TESTING

➤ **The Relationship between the awareness of cryptocurrency and demographic factors of the respondents.**

❖ **In order to establish the relationship, Chi-Square statistics was calculated as under:**

$$X^2 = \sum_{i=1}^m \sum_{j=1}^n \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Where O_{ij} = observed frequency in the i - j th cell

E_{ij} = expected frequency of the i - j th cell

R_i = Row total of i th Row

C_j = column total of the j th column

G = Grand Total

H₀: There is no significance impact of demographic factors of the respondents on their Awareness of cryptocurrency.

H1: There is significance impact of demographic factors of therespondents on their awareness of cryptocurrency.

➤ **The relationship presented above lead to the following research hypothesis.**

Sr.No.	Hypothesis	Calculated Value χ^2	Table value at $\alpha = 0.05$	Decision regarding null hypothesis
1	H0: Gender does not affect the awareness of cryptocurrency. H1: Gender affect the awareness of cryptocurrency	13.23	3.84	Rejected
2	H0: Age does not affect the awareness of cryptocurrency. H1: Age affect the awareness of cryptocurrency	7.43	7.82	Accepted
3	H0: Education does not affect the awareness of cryptocurrency H1: Education affect the awareness of cryptocurrency	0.62	11.07	Accepted
4	H0: Occupation does not affect the awareness of cryptocurrency H1: Occupation affect the awareness of cryptocurrency	18.67	7.82	Rejected
5	H0: Income does not affect the awareness of cryptocurrency H1: Income affect the awareness of cryptocurrency	0.29	7.82	Accepted

The above results indicated that Age, Education, and Income of the respondents do not have significant association with the awareness of cryptocurrency. Where; gender and occupation of the respondents has significant association with the awareness of cryptocurrency.

MAJOR FINDINGS

- Majority respondents (78%) are aware of cryptocurrency.
- The study found out that 42% respondents have invested in Gold & Silver, around 36% respondents have been bought Life Insurance policies, 34% of respondents have invested in Bank's Fixed deposits and in Mutual Fund, 30% have invested their money in real estate.
- Out of the total respondents; 62% respondents were aware of cryptocurrency; among them only 62% respondents were regular investors of cryptocurrency. The remaining 38% of respondents have shared the reasons for not investing in cryptocurrency.
- Maximum respondents (77%) heard about cryptocurrency for the first time from their friends and colleagues followed by newspapers & media - social media, electronic media.
- The study concluded that Bitcoin is very famous and valuable among all; which is followed by Litecoin, Ripple, Monero, Dash, ALT coin, Platin coin, Dogecoin, NXT, Zcash, and Ethereum.
- 64% of respondents have obtained cryptocurrency direct from purchasing itor mining. Majority of them are transacting in it for less than one year and they did not follow any pattern or frequency of purchasing cryptocurrency.
- Majority said that they got approximately 1% to 10% annual interest on the investments. About 54% of respondents kept the cryptocurrency in Online Wallet form.
- Factors that stop them from investing in cryptocurrency are illegality, insecurity, and high-risk factors associated with the investments.
- The respondents believed that cryptocurrency can be the best effort for Digital India, it has a wide scope in India, and it cannot be treated as speculative bubbles by the investors.

IMPLICATIONS OF THE STUDY AND FUTURE SCOPE OF THE RESEARCH

The study can help the Government/RBI about the awareness level of people about bitcoin and the factors that attract and factors that deter them from investing in cryptocurrency, accordingly Government/RBI can take appropriate decisions regarding cryptocurrency. The investment pattern of the people of Ahmedabad can also be known from this study which can help other companies who offer other investment options to people. They can frame their strategies accordingly. In future, studies can be undertaken on the regulations on

cryptocurrency in India, cryptocurrency exchanges, their working and their legality, Government/RBI measures to warn the people of India against the money laundering and terror funding activities through trading in virtual currencies like cryptocurrency.

CONCLUSION

From the above key findings, it can be concluded that people of Ahmedabad city in general are well aware of cryptocurrency. They may put it as a future portfolio of investments, but they are afraid of the risks associated with the investment; as it is not a legally accepted by the country and is not regulated by any authority of Government. It is also suggested that if Government of India will come forward to regulate the entire transaction, it will help them to take decision about investment in virtual currency in future.

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