

# A study on investor's awareness and perception regarding investment in Crypto currency with special reference to Bitcoin

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**Abstract-** After the financial crises, it is evident that Bitcoin has emerged to be the most successful crypto currency since its appearance back in 2009. The success can be attributed primarily to its security robustness, along with two main properties ie anonymity and decentralization. The robust network of decentralized payment transactions has attracted a lot of attention among ecommerce users. This paper investigates whether bitcoin as an investment asset offers diversification benefits, more specific whether bitcoin has hedge or safe haven properties. Bitcoin is a decentralized digital cryptographic currency which has gone through and still goes through spectacular developments leading to a lot of media but also academic attention

A cryptocurrency works best when the volume of transactions is large relative to the individual transaction size (e.g., as in a retail payment system). It uses peer to peer payment network involving negligible cost with no involvement of third party or financial institution in the payment transaction. Such anonymity in the bitcoin network is the unique propagation which was not inherently present in any e-commerce transaction. Although blockchain technology brings innovation and a variety of new applications to many industries, it is clear that the crypto currencies based on this technology entail numerous risks. In this paper, we have made an attempt to find out if Bitcoin or any cryptocurrency is a feasible investment alternative for investors seeking to compound the value of their wealth over time. Since public awareness eventually defines Bitcoin's price, the future for Bitcoin lays with increasing positive public perception.

It uses a peer-to-peer network which consists of nodes of computer systems, which provide the computer necessary power to run the software for the network. The USP of these networks is that they have implemented the distributed ledger technology, which uses cryptographic techniques for the identification and validation of payments by network nodes; that are subsequently recorded decentralized in a public distributed ledger, called the blockchain

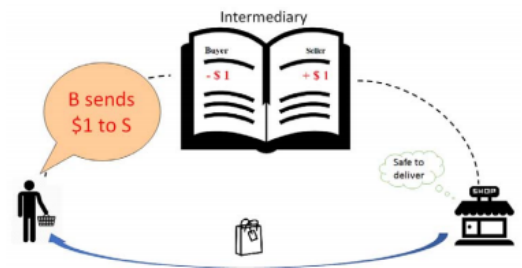
## I. INTRODUCTION

The most valuable and sought after commodities in the world today is money, and it has affected people in almost every facet of their lives. Nakamoto (2008) introduced the world's first decentralised crypto currency, called bitcoin. Since 2008, Bitcoin is considered to be the most controversial innovations in this field is cryptocurrencies. Bitcoin works on a new payment technology, wherein it allows payers and payees to directly transfer value to each other electronically and anonymously without the need to use the services of trusted third parties, like financial institutions (Nakamoto, 2008).

(a) Physical tokens (e.g. cash)



(b) Digital tokens with a trusted third party (e.g. PayPal)



(c) Digital tokens in a decentralized network (e.g. Bitcoin)

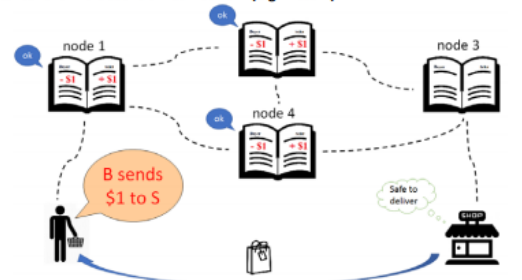


Figure 1: Different Currency Systems

The big question which remains unanswered is why the demand for Bitcoin increasing continuously!

The demand is increasing mainly because of have several advantages associated crypto currencies such as decentralization and anonymity, low transaction costs and use of crypto currency as a financial instrument to generate profit from its price volatility or to diversify a portfolio. Since the introduction of bitcoin, it has received considerable media attention worldwide, as it was believed that cryptocurrencies have the potential to bring a drastic change in the existing retail payment ecosystem by eliminating traditional financial institutions like banks, which act as intermediaries between consumers and retailers, superfluous. Moreover, it was thought that, if the accessibility of crypto currencies increases on a large scale, they could even affect the functioning of the monetary system (Halperin, 2013; Stevens, 2017). Considering this, Countries with strict capital control such as China and Iceland have prohibited crypto transactions, eliminating possibilities of bypassing capital control restrictions.

So it is most unlikely for Bitcoin to recognized as an official currency for the economy as it has too many faults and has too many risks, the most prominent being the scope of theft , fraud or technical glitches where stolen Bitcoins are lost forever.

## II. BITCOIN AND OTHER CRYPTO CURRENCIES

Since the creation of Bitcoin in 2009, numerous private crypto currencies have been introduced. Bitcoin is by far the

<i>Name of the Cryptocurrency</i>	<i>Market Capitalization(billion \$)</i>	<i>Price (\$) As on 30<sup>th</sup> march,2017</i>	<i>Circulating supply</i>	<i>Percentage in Price fluctuation (24 hour -\$) As on 30<sup>th</sup> march,2017</i>
Bitcoin	120.56	7311.35		-7.56%
Ethereum	38.92	406.03		-6.91%
Ripple	20.02	0.52		-8.73%
litecoin	6.74	124.35		-3.29%
Dash	2.59	330.66		-4.61%

Source: [www.bithumb.com](http://www.bithumb.com)

Bitcoin is most preferred Cryptocurrency with a market Cap of 120.56 billion \$trading at a price of 7311.35 as on march 30<sup>th</sup> march,2017. Apart from Bitcoin, Ethereum and ripple are also preferred Cryptocurrency. From a user’s perspective Bitcoin is nothing more than a mobile application or computer program that provides a personal Bitcoin wallet and allows a user to send and receive Bitcoin with them. This is how Bitcoin works for most users.

## III. REVIEW OF LITERATURE

Singh Aarti and Nidhi Chawla (2016) discuss that future of Ecommerce is difficult to predict but there are various segments that would grow in the future like: emerging new technologies, education, awareness regarding new technology and frauds, Reduced search and transaction cost, Reduced

most successful one. It has been getting a lot of media attention, and its total market value has reached **20 billion USD in March 2017**. More importantly, a number of central banks started recently to explore the adoption of crypto currency and block chain technologies for retail and large-value payments. Bitcoin can be explored as futuristic virtual currency in e-commerce transactions if the risk involved is managed efficiently. Present paper explores the perception and awareness regarding Bitcoin in Pune with special reference to all the generations. Bitcoin is encrypted digital currency which can be bought, sold and exchanged from market places. The value of Bitcoin continuously changes and is traded like stocks on various exchanges. Bitcoins are stored using Bitcoin wallets.

Given the exponential growth in Bitcoins and other virtual currencies since they first came onto the scene in January 2009, it is only a matter of time before your investment company client asks you about the implications under the US Investment Company Act of 1940 (Investment Company Act) of making an investment or accepting payment on a loan in Bitcoins. This article provides the necessary starting point for you to advise your client on these matters by getting you up to-speed on virtual currencies, flagging the main Investment Company Act questions posed by them and suggesting potential answers and solutions to these questions.

The following table highlights the as on date market capitalization and price level at which the crypto currencies are traded.

process lead-time and faster time to market, Increased customer service, Improved convenience and shopping experience, Increased information transparency, Knowledge generation, Novel products and services.

Mittal Alka (2017) focuses on merchants and traders who accept this digital currency as a medium of exchange to overcome its problem of volatility. This will boost the market of Bitcoins not only in India but also in other developing economies. This emphasizes that to survive in the system; Bitcoin has to adapt itself to the required technical and operational innovations. In addition to this, government should impose proper legal framework, to protect the consumers or users of these digital currencies, as the progress seen in the transactions in this currency during the past few months is tremendous.

**IV. RESEARCH OBJECTIVES**

1. To study the level of awareness among investors regarding bitcoin as a virtual currency
2. To study the perception of investors regarding acceptance of bitcoin as mode of cash less transaction
3. To know investors opinion about future of bitcoin in India
4. To understand the investor opinion regarding government intervention and involvement to develop bitcoin as legal mode for cash less transactions

**V. RESEARCH METHODOLOGY**

The objective of the study is sought to be fulfilled through the analysis of the primary data. Field survey becomes essential for the purpose of studying consumer awareness and perception about crypto currencies and therefore gathering information related to the same with the help of questionnaire. For the purpose of the field work, the unit of study comprises working profession/individual residing in different parts of Pune city.

**Data collection Method**

A Descriptive Research has been conducted by reviewing the literature on the subject, followed by survey method to elicit information from investors. A structured questionnaire has prepared using different variables. The primary and secondary data has collected by using Simple Random Sampling technique.

**Sampling**

A sample of 114 respondents belonging to a segment of society would be taken on random basis for the present study. However, as far as we know, there are no primary studies available to identify the level of awareness about the adoption of crypto currency as a mode of payment among a large diverse group of working individual. This paper fills that gap.

In our analyses we have paid due attention to the factors which influence consumer demand for crypto payments, transactional benefits of receiving crypto payments relative to other means of payment, and non-financial barriers to individual' adoption intention and actual acceptance of crypto payments.

The primary research also attempts to find out the level of the acceptance of payment methods, their perceptions regarding crypto payments as well as mainstream online payment methods, their attitudes towards cryptos and their intention to adopt them as a means of payment. We use the resulting rich dataset to answer our research question. Pune provides a good setting for this research, as it has a well-developed online retail market.

**Data interpretation and Analysis**

A survey of 114 respondents was conducted to study the consumer's awareness and perception regarding investment in crypto currencies, as well as the factors of consumer's decision on whether or not to use Bitcoin as mode of cashless payment. Considering the change in payments landscape in India after the demonetization, the survey helps to identify opportunities for a coordinated state approach in addressing the cashless payments issues as well as promote compliance security and protection for consumers.

**The level of awareness varied by Gender, Age group, Income and Education.**

Demographic	Category	Percentage
Age	20-35 years	67.2%
	36-50 years	27.6%
	Above 50 years	5.2%
Gender	Male	81%
	Female	19%
Income level	Less than 5 lakhs	15.5%
	5 to 10 lakhs	39.7%
	10 to 25 lakhs	31%
	Above 25 lakhs	13.8%
Education Level	Graduates	12.1%
	Post Graduate	79.3%
	Professional	6.9%
	Others	1.7%

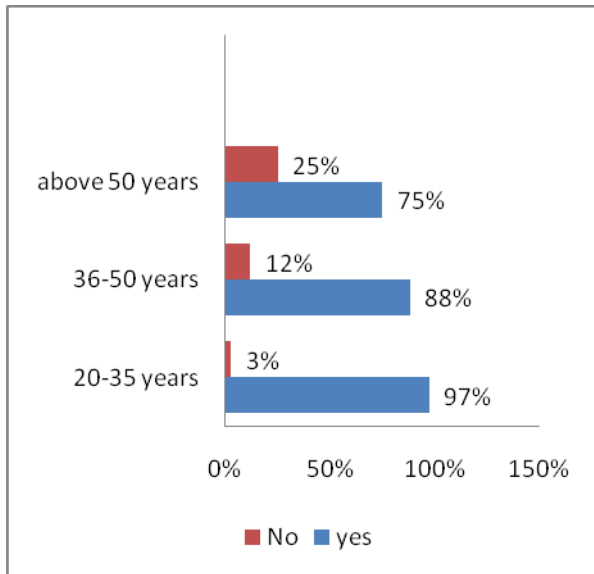
Among 114 respondents Over 98.2% respondents said they had heard of Bitcoin .Men we more likely to be aware about the cryptocurrency Bitcoin than women. Almost 98% of men were aware about Bitcoin as compared to 91% of the women.

Generation Z (age 20-35 years)were more likely to have heard about Cryptocurrencies than Generation Y(Age 36-50 years) and Generation Z(above 50 years)

As the following charts say, over 97% of Generation Z was more likely than Generation Y (88%) and Generation X (75%) to have heard about the crypto currency.

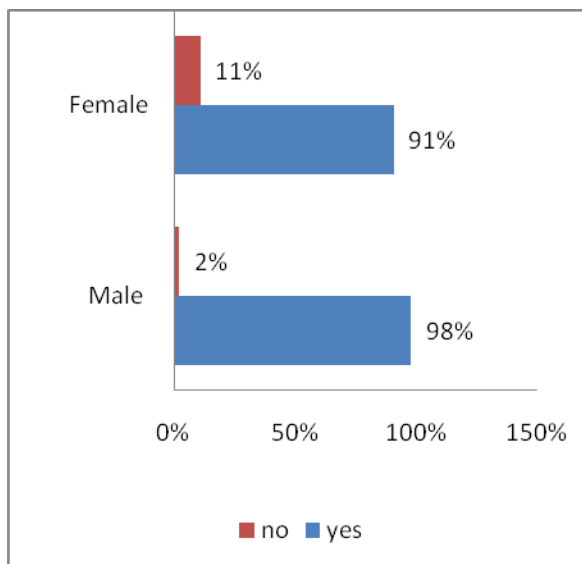
More individuals residing in households with income over 10 lakh have heard of crypto currencies than those in lower-income households.

A higher percentage of post graduates (98 %) are more aware of Bitcoin or another form of crypto Currency, with remaining respondents having a graduate's degree or less (80%)

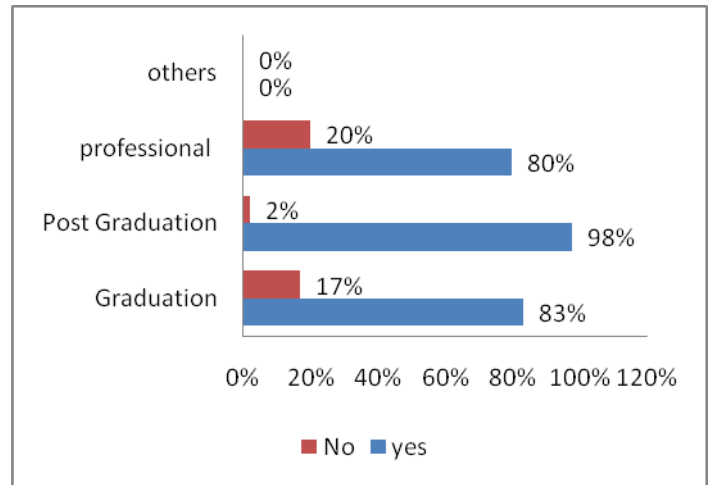


**Figure 1 Awareness about Bitcoin(Age wise distribution)**

Note: This graph provides the percentage of individuals who answered “YES” to the question – “Have you heard of Bitcoin?” Results are broken down into age groups. The sample consists of 114 respondents aged 20 or older.



**Figure 2 Awareness about bitcoin (gender wise distribution)**



**Figure 3 Awareness about Bitcoin (education wise distribution)**

**Investment in Bitcoin or other Crypto currencies**

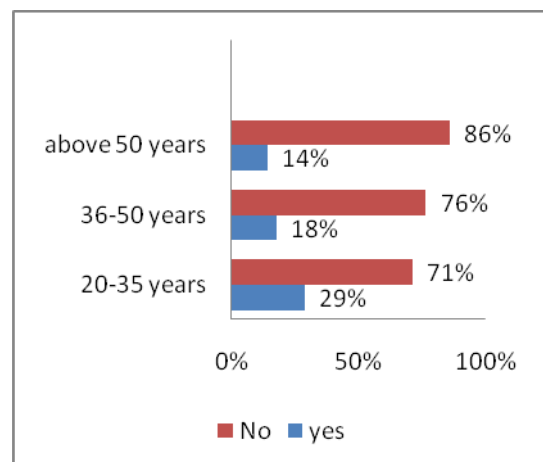
Of the Respondents who had heard of Bitcoin, 27 % of respondents had invested Bitcoin. Of those most likely to have purchase were young respondents, aged 20-35 years old, as well as post graduates.

The investment pattern of Bitcoin varied dramatically by population subgroup:

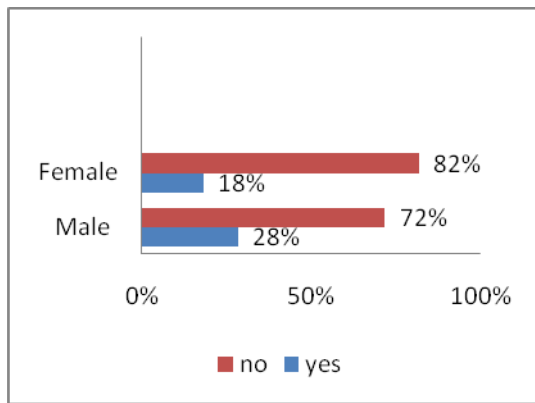
The younger respondents reported much greater willingness to investment in Bitcoin and other currencies than older respondents. Among 20-35 year olds, 29% have invested in Bitcoin, compared to 14 % of those older than 50 years. Moreover among those respondents who were 36- 50 years old were very unlikely to invest in Bitcoin (76%)

A greater Proportion of Male(28%) than Female (18%) have invested in Bitcoin.

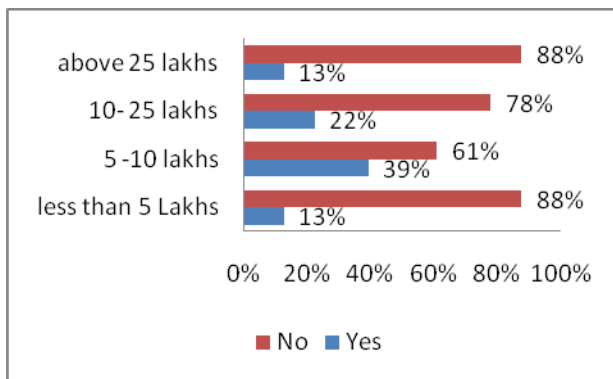
Respondents with High household income (above 25 lakhs) have not invested in Bitcoin whereas 39% of respondents with medium income (5 -10 lakhs) have invested in Bitcoin. it is assumed that high household income were least likely to invest in Bitcoin in future v/s 39% of those with less than 10 lakhs.



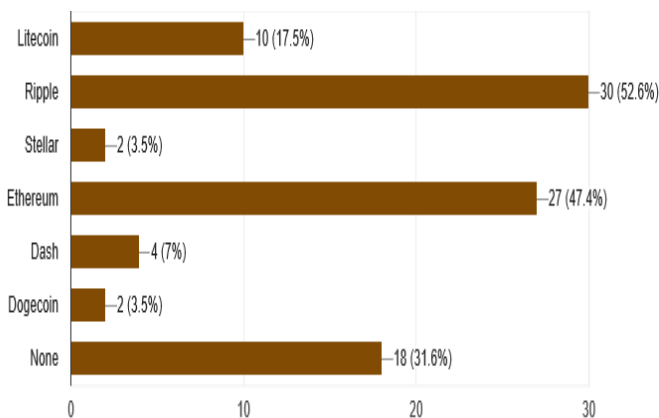
**Figure 4 how many respondents have invested in Bitcoin ? Age wise distribution**



**Figure 5** how many respondents have invested in Bitcoin?  
(gender wise distribution)



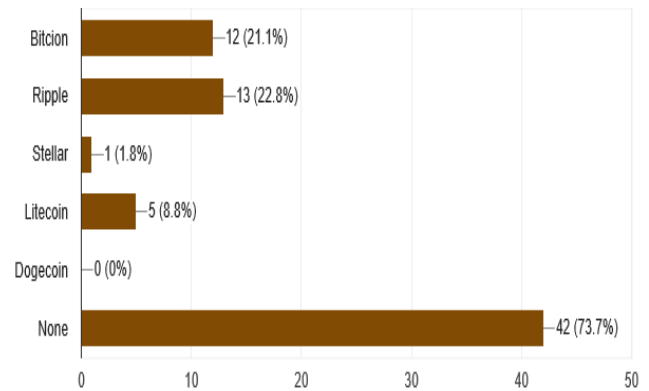
**Figure 6** how many respondents have invested in Bitcoin?  
(Income wise)



This graph provides the distribution of responses to the question –“Are you aware about other Crypto currencies apart from Bitcoin”. Results are highlighted with respected to 114 respondents in multiple choice format wherein respondents were asked to tick all the crypto currencies that they have ever heard apart from Bitcoin.

Of all the respondents who have heard of Bitcoin, 52.6% of respondents are also aware of Ripple followed by Ethereum (47.4%).

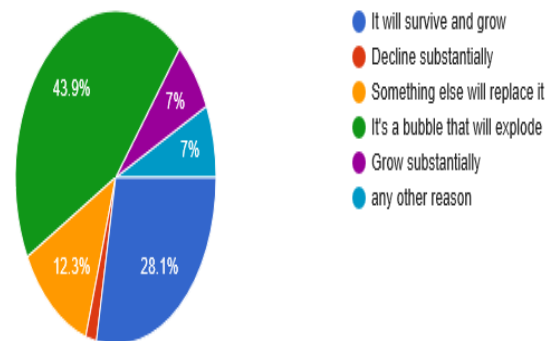
Surprisingly there are 31% of respondents who have heard of only Bitcoin, but have never heard of any other crypto currencies



This graph provides the distribution of responses to the question –“Have you invested in Bitcoin as well as other Crypto currencies?”. Results are highlighted with respected to 114 respondents in multiple choice formats wherein respondents were asked to tick all the crypto currencies that they have ever invested including Bitcoin.

Of all the respondents who have invested in Bitcoin(21.1%), 13% of respondents have also invested in Ripple.

Respondents expressed opinion regarding future of Bitcoin. Most respondents (43.9%) agreed that Bitcoin is a bubble that will explode. Some of the respondent (12%), however, were of the opinion that Bitcoin will survive and grow.



**Figure 7** opinion about the future of bitcoin

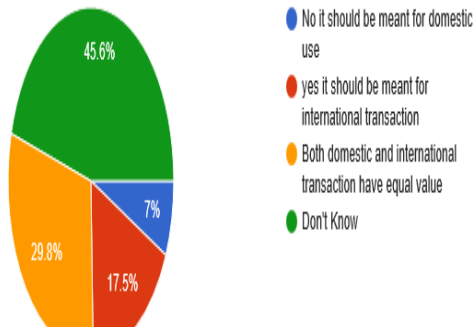
The following graph provide the distribution of response to the question-“Do the respondents consider the replacement of Bitcoin transaction in the international currency transaction”

The majority of respondents,45.6% feel that the prevailing system of currencies and mode of transaction will continue on for a much long time because of the resistance to change and hence they find difficult to comment over the question.

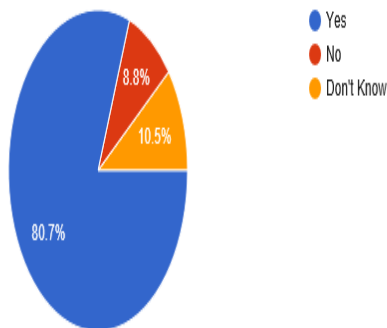
Few, 29.8% also feel that bitcoin could replace all monetary transaction in domestic as well as international market.

The following graph provides the distribution of responses to the question-“what is the opinion of respondents regarding government intervenes to regulate the identity authentication of Bitcoin users?”. Most respondents (80%) feel that government intervention is very important for future and growth prospects of

Bitcoin. Most respondents fear that the governments would declare it as legally invalid.

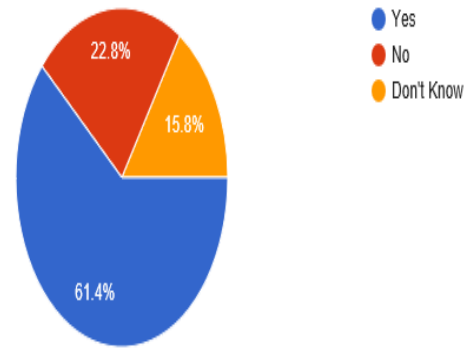


**Figure 10 The opinion of respondents regarding the replacement of Bitcoin transaction in the international currency transaction**



**Figure 8 The opinion of respondents regarding government intervention to regulate the Identity Authentication of Bitcoin users**

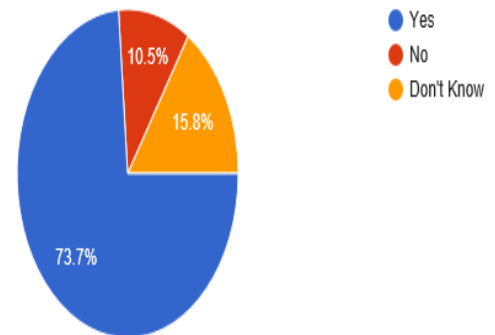
Digital Asset and Blockchain Foundation of India (DABFI) is planning to lay down self-regulatory regimes for trading of bitcoins and other blockchain based digital assets. The opinion of respondents regarding such intervention is optimistic with an majority of 61% of respondent agrees that such intervention will adds to the advantages of bitcoin.



**Figure 9 The opinion of respondents regarding Digital Asset Blockchain Foundation of India .**

The following graph shows the opinion of respondents regarding a standardize KYC norms for the member companies that would amplify the benefits of Cryptocurrency for most marginalized people, merchants, tax departments and regulatory authorities.

Of all the respondents 73.7% feels that a standardize KYC norms for the member companies will amplify the benefits of Crypto currency. Bitcoin being a new concept in India needs to standardize certain norms and regulations.



**Figure 11 The respondents regarding a Standardize KYC norms for the member companies that would amplify the benefits of Bitcoin**

Of 114 respondents who answered the below question concerning about the advantages of using Bitcoin or crypto currency, most respondents feels that international acceptance of Bitcoin as a mode of exchange currency is very important and has a majority of 93 respondents .

87 respondents or 76 % said that low transaction charge is considered to be advantageous factor for the use of Bitcoin. 45 respondents or 39% said that lack of centralized is the least advantageous factor for the use of Bitcoin.

Advantages	Low advantage	Medium advantage	High advantage	Weighted Average Mean of advantages of cryptocurrency
Anonymous and invisibility related to Bitcoin transaction	28	28	45	1.8
<i>Speed of transaction</i>	<i>8</i>	<i>34</i>	<i>96</i>	<i>2.4</i>
No Central Authority	37	10	45	1.6
<i>Very low transactions/commission charges</i>	<i>13</i>	<i>30</i>	<i>87</i>	<i>2.28</i>
<i>International Acceptance especially as mode of exchange currency</i>	<i>9</i>	<i>34</i>	<i>93</i>	<i>2.386</i>
Easy to use and access	32	30	30	1.614
No inflation	22	32	57	1.9
No Chance to use personal data for fraud	16	30	78	2.18

Of 114 respondents who answered the below question concerning about the disadvantages of using Bitcoin or crypto currency, most respondents feels that theft of hacking of Bitcoin and Technical glitches or errors are the disadvantages of bitcoin. 96 respondents or 84% said that volatility of exchange rate is considered to be disadvantageous factor for the use of Bitcoin in the pursuit of cashless economy.

Disadvantages	Low disadvantageous	Medium disadvantageous	High disadvantageous	WAM
Exchange Risk	11	32	90	2.3
Theft & Hacking	8	22	114	2.5
Technical Hitches	7	32	102	2.5
Volatility of Exchange Rate	10	30	96	2.4
Required Expertise	9	40	84	2.3
No Central Authority	12	14	114	2.46

Of 114 respondents who answered the below question concerning about easy adaptation of Bitcoin as a method of cashless payment or crypto currency, most respondents feels that Bitcoin should be regulated by government legislation or Government stamps for approval should be considered.

	Not at all important	Somewhat important	Particularly important	Most important	WAM
If Bitcoin is regulated by government legislation	5	8	42	136	3.350877
If there is more advertising/education about Bitcoin	9	24	63	60	2.736842
If bitcoin prices are more stable	6	34	57	60	2.754386
If you could obtain bitcoin at your banks	10	24	39	72	2.54386
If Major retail websites start accepting Bitcoin	6	20	39	88	2.684211
If Major Bricks and Mortar stores start accepting Bitcoin	10	24	33	88	2.719298
If Simplified and secure procedure for Bitcoin purchase is adopted	7	22	42	100	3
If there is more secure storage methods for Bitcoin	3	22	45	112	3.192982
If Governments stamps of approval	3	10	30	144	3.280702
If the Transaction savings on Bitcoin is passed on to consumers	5	24	54	88	3
If Existing monetary transactions are changed to accept Bitcoin	5	24	54	88	3

## VI. CONCLUSIONS

Currently, the acceptance of crypto payments by individual who are educated and have a net worth of 5 to 10 lacs is modest. However, there is interest among respondents to adopt crypto payments in the near future; indicating that acceptance may rise once certain (perceived) barriers are lowered. In this paper we examine which factors drive individual in adoption intention and actual acceptance of crypto payments. As Bitcoin is a fully decentralized currency, the value is appreciating in the financial economy because its supply is limited and there is huge demand for it. The demand is mainly because of its low transaction costs, anonymity, investment possibilities and possibilities for use in illegal activities.

The future of bitcoin is questionable as Bitcoin has severe disadvantages such as high price volatility, susceptibility to hacking, no protection from a central bank and no consumer protection. Bitcoin is a bubble because just like any other bubble that we might have noticed i.e. dotcom bubble or housing bubble, Bitcoin has no inherent value and the investors are willing to pay the price which is far more than its intrinsic value. Moreover the price is determined solely by the balance between buying and selling.

It is therefore unlikely that it will catch on as an established currency to the general public, as its two main strengths, anonymity and low transaction costs are not necessarily what the average consumer demands. However the technology behind cryptocurrency and Bitcoin can be applied to other currency or payment systems which could have a lasting impact on how people spend money in the future.

However, the primary research performed so far has proven that most respondents feels that theft of hacking of Bitcoin and Technical glitches or errors are the disadvantages of bitcoin. Although interesting research has been performed in this topic, the dynamism of the bitcoin ecosystem that constantly modifies and enhances the bitcoin usage implies that some of the hypotheses assumed for those block chain analysis may not completely hold and, for that reason, block chain analysis still presents interesting open questions. Most respondents are of an opinion that standardizes KYC norms for the member companies that would amplify the benefits of Cryptocurrency for most marginalized people, merchants, tax departments and regulatory authorities. Moreover Digital Asset and Block chain Foundation of India (DABFI) is planning to lay down self-regulatory regimes for trading of bitcoins and other blockchain based digital assets. The opinion of respondents regarding such intervention is optimistic with an majority of respondent agrees that such intervention will adds to the advantages of bitcoin.

Furthermore, some structural parts of the bitcoin system, like the blockchain approach as an append-only ledger, may open interesting challenges for future developments on secure decentralized systems

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