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# A Study on the Impact of Bitcoin on the Indian Economy

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**Abstract:** *The silence of the RBI on the regulatory status of bitcoins may prove to be damaging. An industry has grown around bitcoins in India- traders, exchanges and merchants who accept payments in bitcoins. Bitcoins have already gained wide acceptance around the world- hence banning them would not be an option in India. Instead, this industry would need to be regulated. The sooner this is done, the better. A bitcoin is a virtual currency first introduced in the year 2008 by an anonymous group called Satoshi Nakamoto. It's an open source peer-to-peer cryptographical system (direct connections without an intermediary) where transactions happen through a public ledger called blockchain, handling users' data anonymously. Eight years since its introduction, bitcoin is today the most widely used and accepted digital currency. By categorically reiterating that cryptocurrencies could not be part of the 'payment process', India buries the economic possibilities of crypto as a currency. However, the positive focus on blockchain technology is redeeming the bitcoin.*

## I. INTRODUCTION

After independence, Indian government has adopted the socialistic way of managing business and introduced license raj to run Indian companies. So, „Made in India“ brands were noncompetitive in the international market, leading to decline in export. Simultaneously, India import bill of capital goods, crude oil & petrol products increased the Forex outgo. Settlements in both terms were in USD, so resulted in severe scarcity of foreign exchange. The Foreign Exchange Regulation Act (FERA) enacted in 1973. As per the guidelines, all forex earnings by companies and residents have to reported and surrendered (immediately after receiving) to RBI (Reserve Bank of India) at a rate which was mandated by RBI. FERA strictly controlled any activities related to foreign exchange. Forex market in India formally initiated in 1978 when Central government allowed interbank foreign exchange trading. At that time, Indian forex market has been a highly regulated one. Post liberalization, the Government of India felt the necessity to liberalize the foreign exchange policy. Hence, Foreign Exchange Management Act (FEMA) 2000 was introduced. FEMA expanded the list of activities in which a person/company can undertake forex transactions, liberalized the export-import policy, limits of FDI(Foreign Direct Investment) & FII (Foreign Institutional Investors) investments and repatriations, crossborder M&A and fund raising activities. Prior to 1992, Government of India strictly controlled the exchange rate. After 1992, Government of India slowly started relaxing the control and exchange rate became more and more market determined. Foreign Exchange Dealers association of India (FEDAI), set up in 1998, helped the government of India in framing rules and regulation to conduct forex exchange trading and developing forex market in India. Since 2001, clearing and settlement functions in the foreign exchange market are largely carried out by the Clearing Corporation of India Limited (CCIL). Another major development of Indian forex market happened in 2008, when currency futures (Indian Rupee And US Dollar) started trading at National Stock Exchange (NSE). at study on cryptocurrencies which affecting on Indian economy.

### A. Importance Of Bitcoin

- 1) Bitcoin is not only one of the very first but also the earliest decentralized cryptocurrency the world has known.
- 2) Bitcoin has gained a large following in many parts of the globe since its inauguration in 2008 (Chuen et al., 2017).
- 3) No one really knows who founded Bitcoin and the purpose behind the creation. Bitcoin is the work of Satoshi Nakamoto, who according to many believed that it was the right time for the world to experience disruptive technology in finance.

### B. Objectives of Study

- 1) To know the various cryptocurrencies available.
- 2) To know the perception of people toward bitcoin.
- 3) To determine the impact of bitcoin on Indian economy.

### C. Needs of Study

- 1) Bitcoin is one of the safest and trusted kinds of digital currency that people prefer nowadays. In a world where there is an abundance of conmen and looters, we all need to trade in the safest possible ways.
- 2) Bitcoin give us that assurance which makes them an important source of investment right now and in the future as well.
- 3) Another reason why bitcoin have become extremely in demand is because of their policies. You don't really need to deal with a third party when it comes to cryptocurrency.
- 4) This gives people a reassurance and a feeling of safety. The fact that bitcoin are digital currencies alleviates the need for a third party.
- 5) bitcoin is a low-cost means of transaction. You don't need to shell out money in order to exchange digital currencies. All you need in order to be able to transact is your cell phone and a basic knowledge of cryptocurrencies.

## II. REVIEW OF LITERATURE

Jonathan Chiu (2017) explained that General equilibrium monetary model is developed to study the optimal design of a cryptocurrency system based on a blockchain. The model is then calibrated to Bitcoin transaction data to perform a quantitative assessment of the scheme. We formalize the critical elements of a cryptocurrency: the blockchain to keep a history of transactions, the distributed updating of information and consensus through competition for such updating. We show that, unlike cash, a cryptocurrency system does not support an immediate, final settlement. In addition, the current Bitcoin scheme generates a welfare loss of 1.4% of consumption. Such loss can be lowered substantially to 0.08% by adopting the optimal policy which reduces mining and relies on money growth rather than transaction fees to Nance mining rewards. The efficiency can potentially be improved further by adopting an alternative consensus protocols such as the proof-of-stake. A key economic feature of a cryptocurrency system is that mining is a public good, while double spending to defraud the cryptocurrency depends on individual incentives to reverse a particular transaction. As a result, a cryptocurrency works best when the volume of transactions is large relative to the individual transaction size.

Sid Angeles and Eric Gonzalez (2013) ;-Bitcoin 2: Freedom of Transaction Researcher presented a set of changes to the original Bitcoin protocol that would lead to much better security, resilience and decentralization: A sliding block chain with lottery for dead coins, forced Zero coin mixing, and minerostracism

Sarah Meiklejoh (2013) in this study, we presented a longitudinal characterization of theBitcoin network, focusing on the rise of services and the growing gap due to certain idioms of use between the potential Anonymity available in the Bitcoin protocol design and the actualanonymity that is currently achieved by users. To accomplish thistask, we developed a new clustering heuristic based on change addresses, allowing us to cluster addresses belonging to the same user.Then, using a small number of transactions labeled through ourown empirical interactions with various services, we identify majorinstitutions and the interactions between them. Even our relativelysmall experiment demonstrates that this approach can shed considerable light on the structure of the Bitcoin economy, how it is used,and those organizations who are party to it

Cedillo (2013) presentsanother intriguing point of view of money related improvement and portrays how the shadow managing an account industry has concocted numerous budgetary advancements that whatever is left of the monetary world has later grasped. His dialog additionally expresses that even the European Central Bank has perceived that its administrative system lingers behind 21 mechanical advancements by years. One can sort Bitcoin to be a piece of shadow saving money since it is a fiscal framework that works outside of the authority budgetary framework. In such manner Bitcoin may speak to such a development, to the point that the authority money.

Trevor I. Kiviat (2015), held that Bitcoin has both upside and downside, however blockchain technology may be adapted and that policy makers should make regulations with caution and precession.

Bhattacharjee and Harmeet Kaur (2015), concluded that the results attained by Bitcoin so far may give rise to new hopes to both consumers and market who seek more freedom in terms of volume and payment methods.

Tara Mandjee (2015), concluded that Bitcoin is now young and experimental, however in coming times it will make a long-lasting impression

Trevor I. Kiviat (2015), held that Bitcoin has both upside and downside, however blockchain technology may be adapted and that policy makers should make regulations with caution and precession

Tarun and Anuj Prakash (2016) held that Blockchain is in infancy stage however it can be applied in coming times in sports, games, tourism and others.

### III. RESEARCH METHODOLOGY

Research methodology is the systematic way to solve the research problem. It gives an idea about various steps adopted by the researcher in a systematic manner with an objective to determine various manners. It is necessary for a researcher to know not only the research methods /techniques but also methodology.

### IV. RESEARCH DESIGN

The research design is exploratory till identification of customer perception. Later it become descriptive when it come to promoting technique in bitcoin

### V. DATA COLLECTION TOOL

Data is collected from various investors through personal interaction. Some other information is collected through secondary data also. Data was collected through a structured questionnaire; Like Scale is used for analysis Convenience sampling Method is used to collect data for interpretation and analysis of research

### VI. DATA ANALYSIS

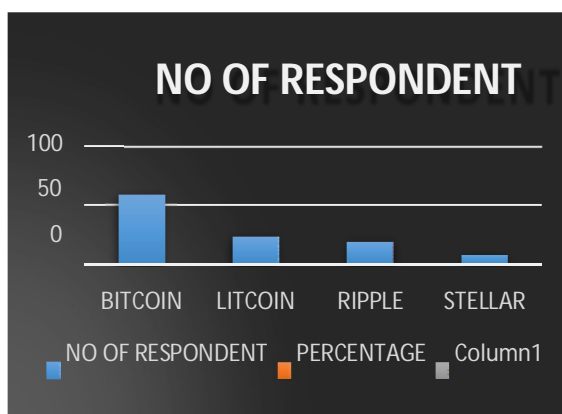
Table No 1.

Which Virtual Currency do you Consider to the Best Known ?

S. NO	PARTICULAR	NO OF RESPONDENT	PERCENTAGE
1	BITCOIN	58	54.7%
2	LITCOIN	23	21.7%
3	RIPPLE	18	17%
4	STELLAR	7	6.6%
	TOTAL	116	100

Chart No 1.

Which Virtual Currency do you Consider To the best Known ?



Majority 54.7% of respondent are in the category of bitcoin. From the above table show that the virtual currency do you consider to the best known of the respondent 54.7% of bitcoin,31.7% of litcoin,17% of ripple and 6.6% of stellar of respondent.

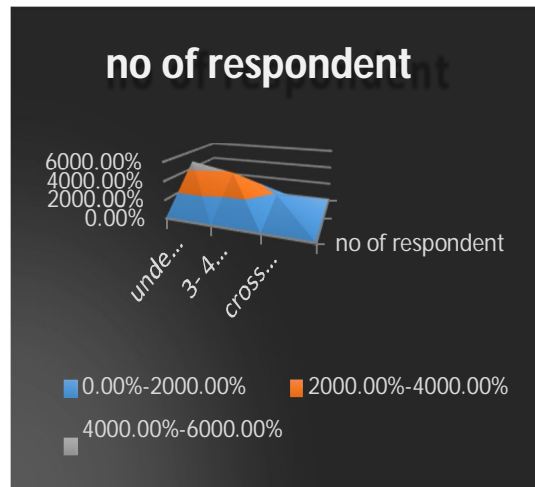
Table No 2.

What number of government do you expect to ban their citizen holding currencies 2 year?

S.NO	PARTICULAR	NO OF RESPONDENT	PERCENTAGE
1	Under 2 countries	48	45.3%
2	3-4 countries	39	35.8%
3	Cross 5 countries	19	17.9%
<b>TOTAL</b>		<b>106</b>	<b>100</b>

Chart NO 2

What number of government do you expect to ban their citizen holding currencies 2 year?



Majority 45.3 % of respondent are in the category of under 2 Countries From the above table show that the number of government do you expect to ban their citizen holding currencies 2 year of respondent 45.3 % of under 2 countries ,35.8% of 3 – 4 countries,17.9 % cross 5 countries of respondent

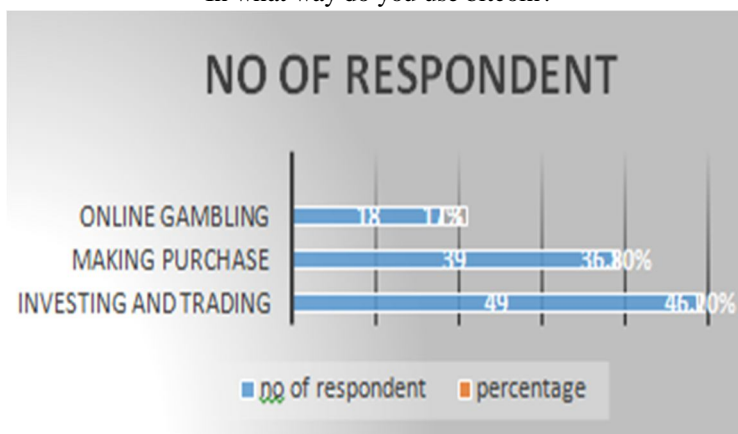
Table no 3

In what way do you use bitcoin?

S.NO	PARTICULAR	NO OF RESPONDENT	%
1	Investing and trading	49	46.2%
2	Making purchase	39	36.8%
3	Online gambling	17	17%
<b>TOTAL</b>		<b>106</b>	<b>100</b>

Chart no 3.

In what way do you use bitcoin?



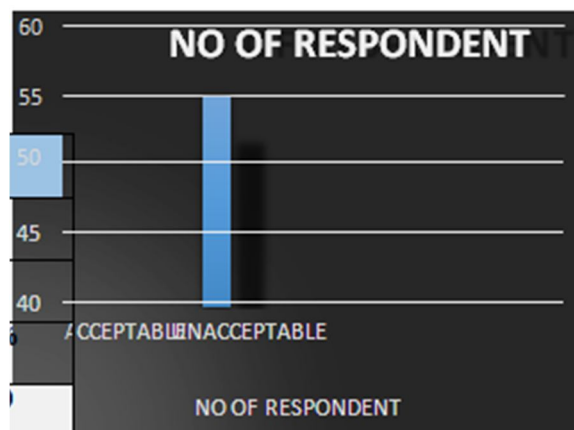
Majority 46.2% of respondent are in the category of Investing and trading. From the above table show that the in what way do you use bitcoin are in the respondent are 46.2% of Investing and trading, 36.8% of making purchase, 17 % of online gambling.

Table no 4.

Do you ever bought bitcoin?

S.NO	PARTICULAR	NO OF RESPONDENT	PERCENTAGE
1	Acceptable	51	48.1%
2	Unacceptable	55	51.9%
	Total	106	100

Chart No 4.



Majority 51.9% of respondent are in the category of unacceptable. From the above table show that the do you ever bought bitcoin are in the respondent 48.1% of acceptable, 51.9% of unacceptable.

## VII. HYPOTHESIS TEST

### ANOVA TEST

One – way ANOVA is a statistical technique that is used to compare that mean of more than two groups.

### VIII. STATISTICAL HYPOTHESIS

Null hypothesis (H0): There is no relationship between gender and do you think bitcoin will ever solve scalability problem

Alternative hypothesis(h1): There is relationship between gender and do you think bitcoin will ever solve scalability problem

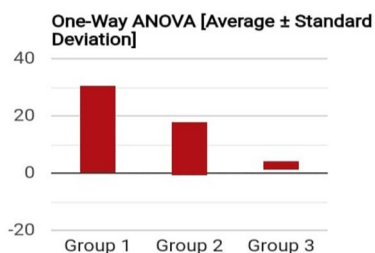
#### Analysis of Variance Results

F-statistic value = 1.40015

P-value = 0.29551

Data Summary				
Groups	N	Mean	Std. Dev.	Std. Error
Group 1	4	15.25	15.4569	7.7285
Group 2	4	8.5	9.6782	4.8391
Group 3	4	2.75	1.7078	0.8539

ANOVA Summary					
Source	Degrees of Freedom	Sum of Squares	Mean Square	F-Stat	P-Value
	DF	SS	MS		
Between Groups	2	313.1667	156.5833	1.4001	0.2955
Within Groups	9	1006.4997	111.8333		
Total:	11	1319.6663			



### IX. RESULT

ANOVA was performed to examine the difference among gender on bitcoin will ever solve scalability problem Result of ANOVA showed P value 0.29551 is less than 0.05 or  $p < 0.05$  hence null hypothesis is rejected. There is significance between among gender on bitcoin will ever solve scalability problem.

### X. SUGGESTION

The first of our bitcoin trading tips is to proceed with caution and start with a relatively small investment. Although it's an exciting market with a reputation for making the lucky few substantial profits in a short time frame, it is by no means easy to trade bitcoin, and there's huge risk involved. Cryptocurrencies, in general, are extremely volatile. Avoid the temptation to go in all guns blazing and, instead, opt for small-stake trades that allow you to get a handle on the market with minimal risk. Your [bitcoin wallet](#) is a holding pen for your digital assets so it's important to choose wisely to ensure security and ease of access. There are multiple options out there, all with their own features and functionality.

For beginner traders, it's advisable to trade through a [reputable broker](#), such as Coinbase, and use the wallet they provide. If you're looking to choose your own wallet, though, you'll need to decide which type is right for you. Since it is a decentralized system, the transactions are also anonymous. Bitcoin transactions are secure and fast as they take place from client to client in a matter of seconds. Bitcoin site in the most strategic place as the future currency if regulation becomes a reality in blockchain technology.

## XI. CONCLUSION

From the above research we can clearly see that cryptocurrency is still in an evolution phase and it has not gained much of the user base in India. Also very less population of India aged between 18-24 is aware about cryptocurrency and even if they are aware of cryptocurrency they hardly use it. People said the reason they are reluctant to use cryptocurrency is that Exchange rate is very volatile, i.e. in April 2017 1BTC  $\approx$  1200\$ but in November 2017 it has crossed \$6500. Cryptocurrency is a peer-to-peer currency, thus doesn't require any intermediaries or broker to complete the transaction which reduces the cost per transaction significantly and that was the major reason given by respondents for using the cryptocurrency. Also, when asked from respondents about the factors which might help in future adoption of cryptocurrency, respondents said acceptance of cryptocurrency by major banks and e-commerce website is very important and also educating people of cryptocurrency adoption of bitcoin. Bitcoin offers a new, effective and attractive model of payment methods that can boost companies and operators revenues. It also provides an alternative method of payment, apart from real money, that enables users to make financial activities such as buying, selling, transferring and exchanging easily. Although cryptocurrency platforms open many channels for digital financial transactions and provide a new form of currency with different mechanisms and methods, they are not controlled and regulated as they deserved. The research analyzed cryptocurrency platforms and extracted many concerns and challenges that put such financial system under the risk. The lack of legislations is considered as the main concern in cryptocurrency systems. Almost a clear picture of the size of cryptocurrency use has been drawn from my analysis of the current cryptocurrency literature and from the conducted study. Although the pilot study has been conducted with a relatively small sample, but the results showed me a preliminary perception about the use, the growth, the trust of using and future expectations of cryptocurrency. I can now realize many indications that can provide initial answers to the research questions. My analysis indicates that cryptocurrency is very likely to be the next currency platform due to the large volume of cryptocurrency that is flowing in different systems, the huge expanding and growing of using and implementing bitcoin and the opportunities that bitcoin systematic offer.

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