

FINANCIAL INCLUSION IN THE DIGITAL CURRENCY ERA

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ABSTRACT

Utilizing revolution in digital technology to aid the financial inclusion gap is the main focus of the study. The Objective is to push economic growth and reduce inequality with the help of Financial Inclusion. The significance of digital currency can be easily understood in the light of impact of covid 19 on world economy which in turn reduces the use of cash ,rush in digital transactions, need for government to get financial help to impacted population swiftly and competently. The cost of transactions can be reduced significantly by lowering the cost of Digital currencies. The study will cover CBDC(central bank digital currency) to crypto currencies which are the most happening talk of the town for those not so aware about new age digital and traceable money and assets to decode puzzle. The paper will be survey and analysis of the same, not considering the necessities the pandemic has brought in, but a general overview if situations are back to normal.

Keywords: Economic Growth, Financial Inclusion, Digital Currency, CBDC, Crypto Currency.

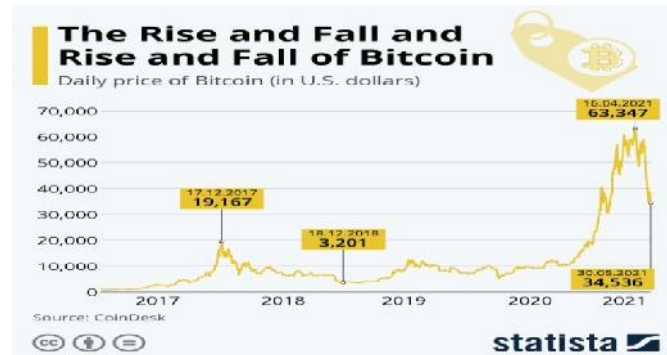
Introduction

Digital Currency is a medium of exchange in a form of a virtual database using strong technology without using any medium of exchange or financial institution. Digital currency can be divided into two types:

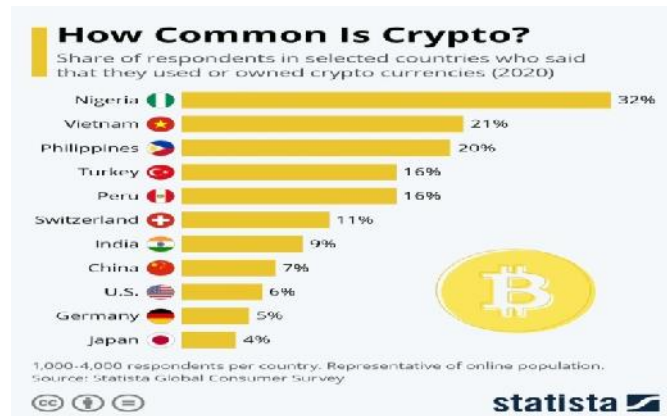
- **CBDC:** Central bank digital currency is a fiat currency of a particular nation issued by the central bank of the country. It is a representation of the country's official currency in digital form. India has not officially launched it but looking into the scope and viability of issuing such currency very soon. Although there is no backup reserve to maintain the risk of such currency due to the impact of covid 19, many countries are looking forward to the launching of their virtual currency. They have already launched pilot programs to test the reliability of such currencies. The bank of England was the first one to launch the CBDC proposal. Like paper currency, CBDC is also given a unique number to identify it. CBDC Leads to financial inclusion and in turn economic growth of the country.
- **Virtual Currency:** Virtual currency popularly known as cryptocurrency formed with two words- Crypto means cryptography and currency means a medium of exchange. Cryptocurrency is a digital asset distributed among a large number of computer network which uses blockchain technology represented by ledger entries into the system. The most popular cryptocurrency is Bitcoin which was launched by Satoshi Nakamoto in 2009.As per the records of march 2021,18.6 million bitcoins was there in circulation.

Cryptocurrencies as commodities are highly volatile a recent example being the massive swings in the values of Bitcoin and Dogecoin. Another problem is the increasing energy use associated with cryptocurrencies. Bitcoin is the first and begins to decentralized cryptocurrencies which online payment systems that are increasingly becoming mainstream at that Binance coin master many other that have emerged after Bitcoin crypto currency fabric on the back of blockchain Technology a system of distributed cryptographic speak your account keep in the system the user's keep attack on every digital finance transactions within a banking system with governing body at a centre. The rise and fall of Bitcoin prices can be depicted from the following Chart:

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The crypto currency market is classified on the basis of component that is hardware and software. On the basis of types it is classified as Bitcoin and other currencies like Ethereum, Ripple, Litecoin, Dashcoin, and Others. By end user it is divided into real estate, banking and stock market. Crypto currency can also be further classified on the basis of region that is North America, Europe and Asia Pacific. Below chart depicts the usage of crypto currency in various Countries.



Elon Musk and Cryptocurrency

Price fluctuations and market ups and downs are very much noted by us but a very different trend is talk of the town these days. It is all about the tweets of Tesla and SpaceX CEO Elon Musk. Whenever Elon Musk tweets about Cryptocurrency, the market price reaches the sky or touches the ground. 57 million Twitter followers of Musk eagerly wait for the new tweet of Elon Musk.

Digital Currency and Financial Inclusion

Financial Inclusion helps people to secure financial services and products at economical prices such as deposits, fund transfer services, loans, insurance, payment services, etc. The objective of financial inclusion is to understand the needs of poor people, weakened groups, backward societies. It provides access to the appropriate financial product to low-income individuals in a transparent manner by institute players. (reserve bank of India, 2018). Access to a transaction account is the first step towards financial inclusion since a transaction account allows people to store money, and send and receive payments. The next step involves access to accounts and accounts to usage. The gender gap is the biggest concern of Financial Inclusion. In America financial inclusion is expressed in the percentage of households who do not have a bank account.

Innovatively making use of digital technology helps to bridge the financial Inclusion gap in India. The hope says that financial inclusion will lead to economic growth and reduce the inequality in our country. The importance of digital currencies and digital payments increases due to covid 19. Financial inclusion is more than just giving everyone a bank account. Digital currencies have caused a change in the financial community and their sustainability is tested worldwide. On June 9, El Salvador becomes the first country to adopt digital currency as legal. In India also Crypto Industry has to standardize its regulations. The central bank direction on banks needs more clarity on subjects.

Literature Review

Lam Pak Nian, David LEE Kuo Chuen, in Handbook of Digital Currency, 2015 stated "Bitcoin is prize money given to investors for taking the risk. The first investor who cracks the code will get rewards for decoding it. Cryptocurrency is a part of Digital currency and there are other currencies also in the market like Airmiles, Brixton pounds, game tokens etc. Crypto currency is the unadulterated part of digital currency."

Kelvin F.K. Low, Ernie Teo, in Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1, 2018 quoted "Satoshi Nakamoto, developer of bitcoin, said that non-reversible characteristic of cryptography is the major drawback of it. Other disputes like high transaction cost, limitation of transaction size and no small transactions make it slightly risky. There is no third party involved as it is a group census without using a financial institution. There is no need of a trusted third party as a cryptographic proof is enough."

Marlei Pozzebon, in Encyclopedia of Information Systems, 2003, explained "Internet cash transactions are resultant of increasing internet technology which is the major trend of today. It is an interplay between internet traders, electronic banks and possible customers. The combination of E-cash with smart cards and wireless automation blends a perfect recipe."

Alyse Killeen, Rosanna Chan, in Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2, 2018 focussed on "need of infrastructure which is not required in digital currency as the focus is on network infrastructure, anyone can exchange virtually whether it can be people, entity or devices. The reach to the economy is basically changing in the modern world. As the world uses more technology, innovations will be done, new market places will emerge, and transactions will be done on new parties and new assets."

Manish Agrawal, ... Kichan Nam, in Encyclopedia of Information Systems, 2003 talked about new innovations in the market which include micropayment, Electronic tokens, Digital cash, Electronic check, credit and debit card systems.

David Yermack, in Handbook of Digital Currency, 2015 talked about the history and background of bitcoin which stated that successful currencies of the world were convertible into a certain amount of gold and other valuable stones, and thousands of years back to it currencies were directly taken out from gold or silver. There is a connection between gold and currencies since early civilization. Digital currency tries to disadvantages of gold-based and fiat money. The best part is no external factors can manipulate the supply of digital currency.

V.Sapovadia in Financial Inclusion, Digital Currency, and Mobile Technology, 2017 explained that one-third of the population all over the world is excluded from the present financial system. The financial exclusion is due to various reasons. The traditional financial system has its own limitations which leads to a large number of population unserved. Countries like India are focusing on mobile technology to control financial exclusion.

Borsa Istanbul Review Volume 18, Issue 4, December 2018, in Impact of digital finance on financial inclusion and stability, show light on digital finance is an area that is not focused on in various articles. So author shows light on the importance of digital finance for individuals, groups and business entities. It also focuses on the importance of financial inclusion in the modern era and emerging economies.

Diego Zuluaga CATO journal 2021 in Which type of digital currency for financial inclusion? included the fact that in USA financial inclusion is calculated based on a number of households not having bank accounts. With more than 1.7 billion people with no bank accounts internationally, it's a scope for many large companies to bring small payments to the world "unbanked".

Objectives of the Study

- The objective of my study is to know India's position in Financial Inclusion globally. Whether it is in early days, transitioning period or reached to most advanced period.
- This is one of the esoteric subjects where a lot of research is needed.
- To know the importance of digital currency and financial inclusion in developing countries especially India.
- To know the people awareness about digital currency in India.
- The importance of digital currency increased due to covid 19, to understand its overall impact, selected this as my research topic.

Research Design

The study is all about the awareness of people of India about digital currency. The study is being made virtually due to covid restrictions. Primary data is collected for the same. The study is conducted on literate people (minimum graduation). Research design is a framework of collection methods sampling methods, analysis methods and tools used in research. The collection method used here is a Questionnaire by the means of google forms. Sampling techniques like Judgement and convenient sampling is used. The analysis is done by using tools like SPSS and advanced excel by applying various tests by forming a hypothesis. It took 2 months to reach some findings and conclusions.

Exploratory research design is used to design research as a hypothesis is formed by doing an exclusive literature survey and primary data is collected by using questionnaires.

Sample and Population size The population size is vast as the population includes all literate (minimum qualification graduate) people all over India. My focus was mostly on young graduates as they are the future of our country. While using judgment sampling I selected mostly young graduates and by sending questionnaire in my peer groups and students I have used convenience sampling as its convenient to capture the feedbacks of known people easily. The study was conducted on 100 people by selecting judgment sampling and convenience sampling as a sampling technique.

Data Collection Method

The information required for the research is obtained through an online questionnaire. The reason for collecting primary data in the form of google form is due to covid 19 lockdown, cost consideration, less time and energy is needed to administer and this method is free from bias. For safety measures, the data is collected through this method. There were in total 20 questions asked about digital currency awareness among young graduates. The questions were mostly close-ended but at end the open-ended question is also framed to take views, suggestions and recommendations of the interviewee. Multiple choice, Dichotomous, matrix questions all are used according to requirement. Likert scale was also introduced to make answering easy for respondents. The questions were to the point and simple.

Secondary sources like Books, magazines, journal were also used to capture information. Government publications, survey reports were taken as a support system for research.

Study Period

The study period taken here is 2 months. Due to time limitation, the study was carried on 100 people only.

Ethical Considerations

Research ethics shows respect for those who take part in the research. It has become a professional requirement for research these days. The research is carried out here by taking proper consent from respondents. Their privacy and confidentiality are properly maintained. I have also applied the principle of justice and inclusiveness by giving equal opportunity to the group I have selected as a research sample. I have disclosed all the facts about my questionnaire to respondents before taking their response. This research is originally my work as you will not find any plagiarism here.

Hypothesis Formulation

Null hypothesis (H₀): There is awareness of Digital currency among people of India.

Alternative Hypothesis (H_A): There is a lack of awareness of Digital currency among people of India.

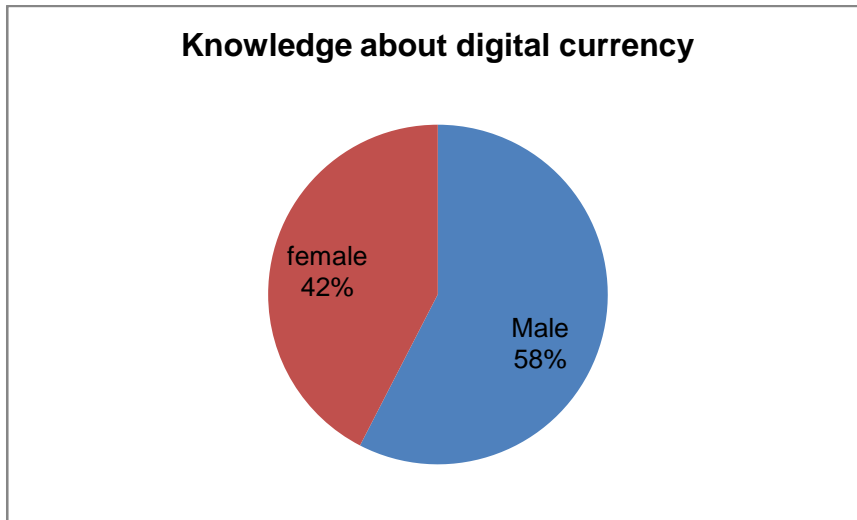
Hypothesis Formulation I

Null hypothesis (H₀): There is lack of awareness of Digital currency among people of India.

Alternative Hypothesis (H_A): There is awareness of Digital currency among people of India.

Data Analysis

Knowledge about Digital Currency * Gender Cross Tabulation					
		Count			
		Gender			Total
		Male	Female		
Knowledge about digital currency	Yes	0	50	34	84
	No	0	12	4	16
Total		0	62	38	100



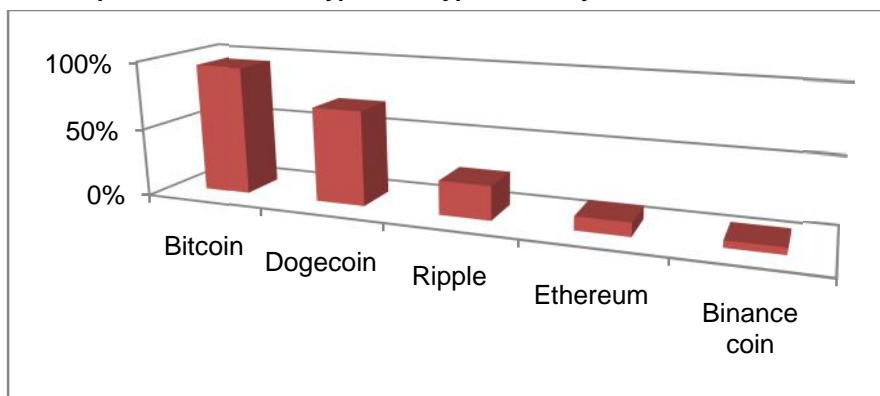
The analysis shows that 84% people are aware of digital currency. Out of which 58% are male and 42% are female.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	102.380 ^a	4	.000
Likelihood Ratio	12.656	4	.013
N of Valid Cases	100		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .01.

The significant value of chi square test is .013 which is more than .05% which says null hypothesis is rejected and alternate hypothesis is accepted. It means that People in India are aware of digital currency.

Awareness of People on the Basis of types of Cryptocurrency



According to analysis it is observed that More than 80% of people who are aware of cryptocurrency are acquainted with bitcoin, More than 60% heard about dogecoin, 20% knows ripple, and less than 5% people heard about Ethereum and Binance coin.

How many uses Digital Currency					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	14	14	14
	2	86	86	86	100.0
	Total	100	100.0	100.0	

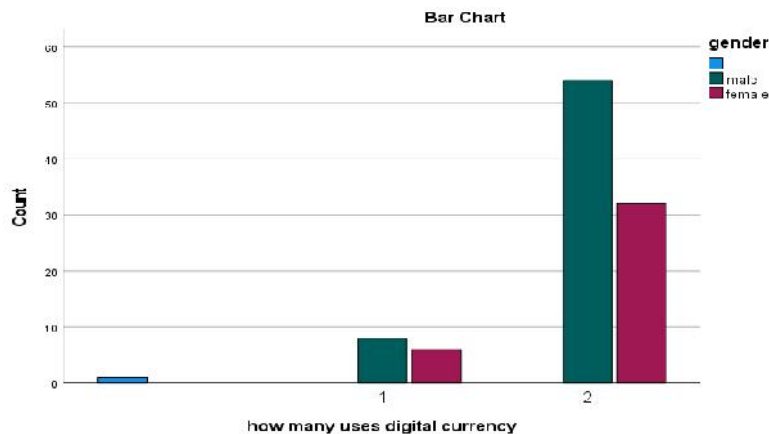
Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	101.165 ^a	4	.000
Likelihood Ratio	11.381	4	.023
N of Valid Cases	101		

5 cells (55.6%) have expected count less than 5. The minimum expected count is .01.

The analysis shows that P value of Chi square test that is .000 is less than 0.05 %level of significance. Hence null hypothesis is rejected and alternate hypothesis is accepted. This means, Digital currency is not very much popular in India as few people uses it. Such a less number of usage may be due to RBI informally ask banks to stop crypto trades on April 21. On May 28, Crypto exchanges threaten to move SC against RBI and on May 31:RBI circular tells bank not to refer to 2018 circular struck down by SC .The controversy between Supreme court and RBI is still not resolved which is affecting popularity of Cryptocurrency to a large extent.

Also the above bar graph shows that Digital currency is more popular in male in comparison to females.



Findings of the Study

- **Awareness of Digital Currency:** People in India are well acquainted with Digital currency although they do not use it as a medium of transaction. Study says that 84% of professional people know about digital currency but only 14% uses it. The reason may be RBI circular against cryptocurrency, or controversies and risk associated with it.
- **Digital Infrastructure:** In many areas, people do not yet have proper infrastructure that would be required to have trust on digital services. Smartphone usage is growing but digital currency still need more time to grow in developing country like India where 65% population is still leaving in rural area with no or very less access of internet facility.
- **Cash Driven Economy:** People in India love to spend cash instead of digital payments. Although there is some hope of increasing digital payment users percentage in near future due to lockdown in covid. Here money is treated as the best source of liquidity and emergency or unplanned expenditures. Internet in India is cheaper but not free.
- **Local Languages.** Language is a major problem in India. As per census, India is using 22 languages but most of the digital products are in english language which make difficult for some of the Indians to understand the language. The fact is known to everyone that 26% of people in India are still illiterate.
- **Complexity of the Apps:** Many literate users are not able to trade in cryptocurrency due to lack of knowledge or complexity of the apps dealing in digital currency. This is also called "DIGITAL ILLITERACY"
- **Gap between digital payments and financial inclusion:** Most of the research is based on formulation of hypothesis on poor and under privileged population .So the relationship between digital payments and financial Inclusion is not clear. Digital users are treated as secondary than poor people in the context of financial inclusion.

Recommendations for the Study

- Digital trust and transparency is required in transactions.
- There should be minimum privacy and account recovery standards for digital payments.
- Digital payments should be more widely used for shopping so the acceptance of traders are very much required.
- Employers should also accept digital transactions for giving wages.
- Regulations of RBI should be more specific and clear regarding uses of cryptocurrency.
- There should be one National ID system for digital payments in order to have secured transactions.
- Adequate data and secured transactions should be guaranteed in relation to digital payments.
- The government of the country should also accept digital payments for paying taxes and receiving benefits.

Limitations of the Study

- Due to lockdown, it was difficult to observe the things practically and reached to conclusion. .
- Reliance on figures provided by Business facilitators and Business correspondents.
- It was difficult to convince young graduates to fill questionnaires at this pandemic time.
- During interviews people did not divulge accurate facts.
- Present topic covers large area of research so sound problem of time and Budget.

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