

Study of Concept of Bitcoin and its Legality in India

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Abstract – Bitcoin uses peer-to-peer technology to operate with no central authority or banks; managing transactions and the issuing of bitcoins is carried out collectively by the network. Bitcoin is open-source; its design is public, nobody owns or controls Bitcoin and everyone can take part. Through many of its unique properties, Bitcoin allows exciting uses that could not be covered by any previous payment system. Confusion reigns in India's crypto currency ecosystem. Shri Narendra Modi government and India's central bank have made it amply clear they aren't comfortable with virtual currencies. The recent spike in bitcoin's value, which attracted hordes of investors, has only made the government more vociferous in its criticism. However, these announcements don't make these virtual currencies, or trading in them, against the law. So, their status is in a curious limbo—they're neither legal nor illegal in India. This Per focus on the concept of Bitcoin and its legality status in India as well as in different countries,

Keywords: Bitcoin, Crypto currency, Virtual Currency, Legal Tender, Payment System.

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1. INTRODUCTION

Bitcoin is a form of new money or currency that was created in 2009 and it's not currency which one can hold in his hand. It's not recognized by most Main Street stores. It's not issued or backed by a national government. Digital Token are generated by Bitcoin imitators by making complex sets of software protocols and for tracking transactions in a way that makes it hard to re-use token or counterfeit. A Bitcoin has value only to the extent that its users agree that it does. In 2008, Mr. Satoshi Nakamoto or a group of person laid out the original software in a white paper .Mr. Satoshi Nakamoto, whose identify remains unknown, despite several efforts to assign or claim credit. Online fantasy games had long used virtual currencies. The key idea behind Bitcoin was the block chain -- a publicly visible, largely anonymous online ledger that records Bitcoin transactions.

If one make an online transfer from one customer to another using a bank .It verifies that you have the funds, subtracts that amount from one spot in a giant database it maintains of accounts and balances, and credits it in another. Customer can view the statements of account and see the result by logging on to his account but the transaction is under the bank's control. Customer trusting the bank to credit or authorize debit the right amount of money, and the bank is also making sure the customer can't spend that money again. Transactions are made with no

middle man-meaning, no banks. There are no transactions fees and no need by the customer to give his real name. The block chain is a database that performs those tracking functions but without the bank or any other central authority. In Bitcoin system the function performed by the bank in case of funds transfer is conducted through a decentralized network process and through various payment gateways sites which are offering mobile or e wallet. E wallets Payment Gateway system upload the data of financial transactions and clubbed the transfer in on line batch mode and broadcast the same information through network for verification which is called Bitcoin Miners.

Bitcoins can be used to buy merchandise anonymously. Bitcoins are not regulated to any country or compliance; therefore all such international payment using bitcoins as a mode of payment are cheaper and faster. Advantage over using bitcoins for small payments instead of credit cards is that there are no credit card applying fees and no finance charges on the usage of credit card limit. As long as using bit coin for retail product or services , there is no issue but people investing in Bitcoins as an investment is risky as its purely a speculative purpose., Bitcoin exchanges facilitates buying or selling of Bitcoin similar to stock market exchanges for example Mt. Gox Bitcoin exchange is the largest exchange . Investors can download the mobile applications or from their personal

computers, they can buy or sell bitcoins. Bitcoins is a digital currency or like a digital cash. Bitcoins are created by solving complex online puzzles and customers compete to do mining. Those who win the puzzles are rewarded with bitcoins.

Digital Wallet is a place where Bitcoins are stored which exists either in user's personal computer or in the cloud. Digital wallet is similar to virtual bank account which give options to the customer's to buy or sell Bitcoins, and use as mode of exchange for purchase of good and services without any physical currency or paper money. During the process of mining and once the bit coins are created and used each transactions is properly accounted in a public log, but secrecy of customer's identification i.e. their names are never made public except their Digital wallet IDs.

2. OBJECTIVE OF THE STUDY:

1. To explore and understand the basic concepts and principles of Bitcoin
2. To study the countries where Bitcoin is legal.
3. To highlight the present status of Bitcoin in India.

3. RESEARCH METHODOLOGY

The research is basically based on secondary data. Secondary data have been collected from the various web sites, and different journals, annual reports, periodicals magazines and weeklies published by the various data collection and research institutes

4. BASIC CONCEPTS AND PRINCIPLES OF BITCOIN

The concept of Bitcoin is similar to barter system in ancient days where people used to trust where goods are exchanged with other goods by comparing their values, needs and mutual consent of the person exchanging with each other. There was no money or legal tender currency at that time in any country which is used for purchasing goods or trading. Feathers, shells, beads, gems, precious metals and then coins came into existence to the modern concept of legal tender of money. The Journey of Evolution from barter to Bitcoin can be divided into three important phases and timelines:

- A. Barter Exchange System: 6000 BC
- B. Gift Based Economy:
- C. Bronze, Coins (1793) and Bank Notes 13TH Century

- D. Bitcoin – Age of Crypto currency: 21st Century - 2009

Bitcoin is a digital currency or cryptocurrency of 21st century which help people to do the shopping on the internet with peer to peer system and without any bank or middleman in between the complete cycle of financial transaction. Details of the parties doing the transactions through Bitcoin is not revealed. All these transactions in Bitcoins are recorded in public distributed ledger and verified by network nodes called as Block Chain technology.

The block chain records every single transaction - of present and past - and the ownership of every single Bitcoin in circulation. Miners are the people responsible for recording, verifying confirming and authenticating the block chain transactions. Since there is no regulator, no Central Bank of any country and no regulations, therefore to ensure the trust of the users of bitcoin Miners have to ensure the correctness of information. These transactions information have to be updated regularly like in banks all transactions to reflect online so the users can check online balance of Bitcoins. Transaction Security and Efficient processing Bitcoin transactions safely is the main job of Miners. Miners are paid fees or commission for their services, by the vendors/merchants for every transaction.

The mathematical field of cryptography is the basis for Bitcoin's security. Address of Bitcoins is a simple address consisting of 26-35 characters alphanumeric. These Bitcoins addresses begin with the number 1 or 3 which represents a possible source and destination for payment through Bitcoin. There is no cost or charges for generation of the addresses by bitcoin users. In mobile applications in online wallet by clicking on "New Address" or through an exchange, user can get a Bitcoin address.

There are currently two address formats in common use:

Common P2PKH which begin with the number 1, eg: 1BvBMSEstWetqTFn5Au4m4GFg7xJaNVN2.

Newer P2SH type starting with the number 3, eg: 3MXknxVapwv6QkMoQv99MBuXZ2XpPewHn9

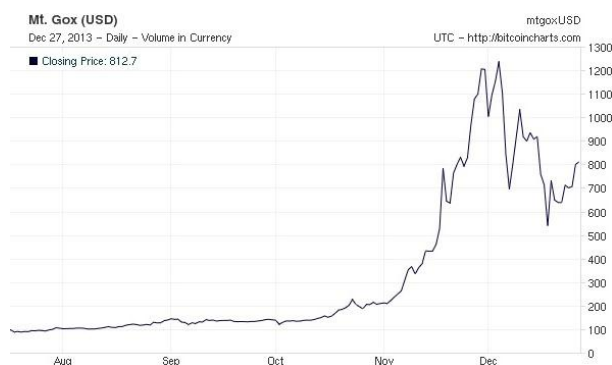
Since Bitcoins is a digital or form of virtual currency so customer in possession of Bitcoin, do not need to have paper money or currency for purchasing of goods and services. There is no need to carry currency notes in their purse or kept at home or in bank account. Bitcoins can be used only for net banking or internet shopping transactions as well as to their relatives, friends and merchants who accept the Bitcoins as a mode of payments. Though Bitcoins are not legal in many countries but still people are using for buying the goods and services as well as investment purpose. Increased usage for

Bitcoin and acceptance by many merchants is reason for growing in popularity.

5. PRICING OF BITCOINS

Though Bitcoins is a virtual currency but its value fluctuates like any one currency relative to other currencies. Year, Bitcoins have had drastic movements in price as well. The value of a bitcoin is constantly changing, and there is no centralized exchange for it. For example, if one customer who possesses Bitcoins buys some goods using bitcoins as mode of payment, there is a need to fix the price and both parties should give their consent when Bitcoin changes ownership from seller to buyer. Since the bitcoin is not like any other currency notes or coins where the value is fixed and both the seller and buyer need to agree for the number of bitcoins to be exchanged against the value of goods. Therefore the fair price is the expectation of the buyer of the goods based on the market trading rates of Bitcoins at the well reputed bitcoin exchanges. Legal tender of the currency issued by centralized bank in forms of physical currency notes and coins have set relative value. Therefore similar to barter system when there is a no monetary system for trading transactions, the value of exchange of goods is measured upon the demand and supply, similarly in Bitcoin as a mode of payment also fluctuates through supply and demand.

Following diagram and a graph reflects the relative value of Bitcoins against US dollars. It has been observed that there are wild fluctuations in the value over the past two months.



The important question being asked by the Investors that what are the advantages of acquiring Bitcoins, when the regular legal tender is available for use or purchases. For the beginners, there are many advantages in acquiring Bitcoins as compared to legal traditional currencies. For example, let's take case where one needs to purchase goods for Rs. 10,000 and the seller accepts only cash. He neither accepts Debit, Credit, Internet banking or Bitcoin. In such scenario customer needs to visit bank or ATM and make the payment in cash to the seller. Customer has to make sure that all such currency notes are not fake or counterfeit. In case if you need the money after the banking hours or where ATM is not functioning, then customer can lot of

problems in arranging cash. To save the customer from this hassle and tension of not making the payment timely, Bitcoin has emerged as digital cash which is always available 24 by 7 by 365. Bitcoins prevents these hassles and make customer tension free. If customer possesses Rs. 10,000 worth of bitcoins and the seller accepts then customer need not run for cash and all the transactions are done digitally within fractions of seconds.

Above is a case of advantages of Bitcoin over cash and now let's understand the benefit of Bitcoins over credit cards. In the case where the buyer used credit card for payment, first he has to pay credit card issuing charges, annual renewal payments and at times seller charges 2 to 4% credit card fees. This fee needs to be paid to Merchant Associations like Visa, Master, American Express etc. This is one of the major benefits that when customer used Bitcoins instead of credit cards, no fees are levied or very nominal. So the seller gets the full price of his product and services. Further no credit limit is fixed by the credit card issuing bank or financial institutions and with the help of block chain technology and public log recording for every Bitcoin transaction. There is a complete transparency and both buyer and seller confirm or agree with pricing and value of good exchanged with number of Bitcoins. There is no risk like cards lost or fraudulent usage of a card stolen. Investor and Seller of Bitcoin gets a lot of comfort as the identity of buyer and seller is revealed in the entire transactions process and network.

The First step is to acquire Bitcoin Wallet by downloading Bitcoin wallet application very easily through different online applications.

6. LEGAL STATUS BITCOIN IN DIFFERENT COUNTRIES

- In 2009 the Bitcoin in form of peer-to-peer digital currency was introduced and this was a new revolutionary era or age of crypto or cryptocurrency. In 2011, Litecoin was introduced after the Bitcoin cryptocurrency and is generally referred as silver to Bitcoin's gold. At present more than 500 different crypto currencies exist which customers can select for example Ethereum (ETH), Zcash (ZEC), Dash, Ripple (XRP), Monero (XMR). Bitcoin continues to be popular and have initial mover advantage. The biggest question or the challenges which arise that when many merchant establishments in the world are accepting as well as various customers are using the same for selling or buying purpose, then why regulators of few countries have made it legal whereas many countries enforcement or tax authorities are still exploring or discussing its legality. The answer to the question "Is Bitcoin

legal or illegal “ depends on the place , location , country or the various purpose and activity of the buyer and seller. Since Bitcoins are not regulated by any banking laws as well as Central Bank’s laws or regulations, because no paper currency is issued. Bitcoins are not endorsed and not control by Negotiable Instrument Act because they are created by computer developed process known as Mining.

- Bitcoin is similar to digital or electronic payment system as well as peer-to-peer payment system because there is no physical exchange of currency notes and coins. It is universally accepted currency so it is not restricted to any country so it’s a very convenient method for Non Residents or people who are travelling abroad. User’s details are not known as well as any exchange fees.
- The major advantage of bitcoin is that purchasing power of the Consumers increases and they are able to buy goods and services with bitcoins directly. Bitcoins can be used for various purposes like online payments to retailers, gift cards purchasing at banks or financial institutions. Bitcoins are free traded in many countries through exchanges and they have robust block chain technology platform. Virtual Currency System has been well established and many business houses have made huge investments in such virtual currency based related projects. Only disadvantage is that there are no such international rules and regulations and the identity of the issuer and the user are kept anonymous, so bitcoins can be used for money laundering, illegal or terrorist funding activities. These two features of Bitcoins attract the criminals to sue Bitcoin for banned goods or weapons in the country.
- Few countries clearly made determinations on the legality of bitcoin where most countries have preferred wait-and-see approach. Some countries have indirectly assented to the legal usage of bitcoins by enacting some regulatory oversight where as in many countries Regulator has clearly declared it as illegal and no legal tender. However, bitcoin is never legally acceptable as a substitute for a country’s legal tender.

The United States: US has a positive approach for usage and acceptance of Bitcoin and as per Investopedia payments through Bitcoin in US are subject to similar regulations of Anti Money laundering Act as applicable to other illegal transactions like terrorist funding , drugs trafficking , counterfeit currency etc. Dinbits news dated

1/17/2017 says that regulatory set up in US for crypto & virtual currency as well as block chain technology has been more explained and defined first time in 2017. 13 states in US have clearly explained their stands for acceptance of Bitcoin friendly or no money transmission laws for example naming few Texas, Kansas, Tennessee, South Carolina, Montana. Few Unfriendly US states has money transmission laws or restrictions for use of Bitcoins are: Wisconsin, North Carolina, California .The U.S. Department of Treasury’s Financial Crimes Enforcement Network (FinCEN) has defined Bitcoin as Money Services Bureau or like money transfer agencies and not as a legal tender currency. The Bank Secrecy Act in US has formulated and laid down various responsibilities like accounting, record maintenance, registration and reporting of all exchange and payment process transactions relating to Bitcoin to ensure compliance.

Canada: In Canada also Bitcoin is accepted as user friendly where as well as ensure the regulatory compliance for curbing money laundering transactions. Bitcoin is treated as commodity in Canada instead of currency therefore income generated for the usage and acceptance of Bitcoins in trading transactions are treated as business income. Taxation on the business income generated from Bitcoin based on two types – whether this income is generated from sales purchase transaction or for investment through trading in exchanges through monetary services bureaus Bitcoin exchanges need to get the registration certificate from Financial Transactions and Reports Analysis Centre (FINTRAC) as well as it come under the control of anti-money laundering (AML) laws. Therefore all the exchanges and monetary service bureaus report all the high value and suspicious transactions which are fully compliant .The Canadian government has entrusted with drafting guidelines under the Senate Banking Committee for defining as well as lays down the legislature of virtual currencies.

Australia: Australia has taken steps to allows entities and regulate trade, mine, or buy bitcoin under new Anti-Money Laundering laws .The Australian Taxation Office (ATO) considers bitcoin transactions like commodity similar to barter arrangement . All such Bitcoin transactions are subject to appropriate taxes depending upon the user. Financial intelligence regulator AUSTRAC will be entrusted new powers to regulate and control digital crypto currency exchanges.

The European Union: No such official declaration regarding legality of virtual currency has been made by the European Union (EU) and they have also followed positive developments in crypto currency in the absence of central guidance, individual EU countries have developed their own bitcoin stances. European Governments are closely monitoring Bitcoin rules and regulations as

many countries have been complaining the use if Bitcoins for illegal purposes.

Countries That Say No to Bitcoin

We have seen above that few countries have shown the positive response towards usage and acceptance of bitcoin but there are many countries which have warned the investors that use of bitcoin is full of risk because of its volatility nature and not regulated by Central monetary system of the countries. Major risk management in Bitcoin can be by avoiding or ban use of bitcoins for drug trafficking and money laundering activities .Few countries have completely banned or declared Bitcoin as illegal where some of these nations have allowed with certain restrictions.

Iceland: The Iceland Nation has banned all international and foreign exchange trading through use of Bitcoin as well as more strict control in their monetary policy .Their main objective is to prevent the outflow of legal tender Icelandic Currency.

Vietnam : Both Vietnam Government as well as Its State Bank have declared that Bitcoin is not a legal mode of payment as it being mostly used for money laundering and criminal purposes. Vietnam government gave the public warning to the customers for not to use or invest in Bitcoins for trading purposes and finally they made Bitcoins illegal for banks, financial institutions and people of Vietnam.

Bolivia: ElBanco Central de Bolivia has prohibited the acceptance and use of bitcoin and other virtual currencies.

Kyrgyzstan: has declared Bitcoin as illegal.

Ecuador: Bitcoin and other crypto currencies were banned in Ecuador by a majority vote in the national assembly. However, the nation has plans to create its own cryptocurrency in the future.

Russia: The legality of bitcoin in Russia is disputed. Russia's Ministry of Finance is hoping to pass a law to ban bitcoin sometime this year.

China: Individuals are permitted to use Bitcoin for sale and purchase of goods and services where as banks, payment processors and financial institutions are not allowed to do transactions in Bitcoins. Bitcoin culture is becoming popular day by day in China and has emerged as one of the world's largest Bitcoin markets. People's Bank of China (PBoC) or the Ministry of Industry and Information Technology (MIIT) are the regulatory bodies which have made no announcements or no laws or rulings on the legality of Bitcoin.

Although Bitcoin is now five years into existence, countries still do not have explicit systems that

restrict, regulate, or ban the cryptocurrency. The decentralized and anonymous nature of bitcoin has challenged many governments on how to allow legal use while preventing criminal transactions. Most countries are still analyzing ways to properly regulate the cryptocurrency. Overall, bitcoin remains in a grey area as the technological leap has left lawmakers far behind.

7. THE FUTURE OF BITCOIN IN INDIA

Governments of different countries have now begun to stand to clear the confusion of limbo status of neither legal nor illegal in India as the Bitcoins are becoming popular day by day. On 30th Nov, 2017, Finance Minister Shei Arun Jaitley announced that India does not recognize crypto or virtual currency as a legal tender like currency notes as the prices of Bitcoin keep fluctuating. Then after a month and Government of India and Reserve Bank of India issued a warning that Investing in Bitcoin is similar to investing in Ponzi. Fraudulent, unsafe as it may tantamount to illegal, money laundering, frauds and cyber security risks. Investment bubble is a real and heightened risk involved in Bitcoin which may leads to sudden losses to investors. 2nd Jan, 2018 again Finance Minister repeated and warned investors that inspite of multiple announcements, notification and warning by the two parties, Government of India and Reserve bank of India, that any investors investing in bitcoin will be taking his own personal risks and cannot approached nay regulatory bodies for loses because bitcoin or nay cryptocurrency in Indian is not legal tender and not lawful investment.

This statement is bit confusing as explained by Mr. Rishab Sinha , a counsel at law Firm TRA "Not being legal tender is not the same as it being illegal," The difference is that if it's a legal tender that means it is recognized in the country as a currency and can be freely accepted for payments and settlements. On the other hand, if it is not a legal tender that means that it may not be accepted for making a financial transaction. For instance, gold or a share certificate. These are not legal tenders but some people may accept it as they see value in it." As a result of this cloud of uncertainty Citi Bank in India has banned the use of debit and credit cards for the purchase of crypto currencies. Citi India also said that Bitcoin or nay cryptocurrency is subject to various types of risk like security, political, economic and financial so that the customer should not suffer losses. China's government also barred from accepting bitcoins by financial institutions and payment institutions with the objective to curb black money or illegal use of bitcoins as a form of payment.

The Government of India wish to discourage the people in India to invest in Cryptocurrency because of its high fluctuating prices as well as high risk involve as its not regulated by any International

Laws and Compliance . The big question is that in case of fraud or losses, where the investor will file the complaints as there is no grievance handling mechanism formalized. Block chain - The technology behind cryptocurrency is already being implemented in India by three private sectors bank in India – Axis, Yes and ICICI for interbank, forex, cross border and domestic financing transactions. IDRBT – Institute for Development and Research in Banking Technology which is RBI's research arm have also favored that block chain technology is now matured enough to be used in banking and insurance industry. Internet of Things and Block chain technology combine can do wonder as it is like a distributed ledger technology or similar to Google spread sheet which are more safe, secure and sound.

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