

An Interview of Naavi was published in Times of India dated 22nd December 2013. This is the copy of the complete interview part of which was edited out at the time of publication. This is reproduced here for greater clarity.

1. What do you make of the bitcoinBitcoin hype?

The hype around Bitcoin has come about because of the sudden increase in the exchange value to the unbelievable levels of \$1000/- in just a couple of months.

The sudden raise in the price has naturally attracted the attention of the speculators around the world who thought this is a good way to make easy money.

The regulators were taken aback when they heard of a so called “coin” being expressed in terms of legacy currencies and used for payments on websites initially and for other offline uses subsequently. Again it was the near \$1000 exchange value that created a stir.

Simultaneously, emergence of “Exchanges” appearing to look like stock exchanges with talks of “Futures” and “Options” made one wonder if a parallel economy has emerged without their knowledge.

With some drug peddling websites designating payments in Bit coins, it appeared as if it is a currency developed for the benefit of carrying on criminal activities and needed to be regulated. The fear of the currency being used for havalas transactions also heightened because of the ease with which money can be moved in near anonymity.

The hype was therefore triggered by the sudden spurt in value and the perception that a parallel money system is coming into existence with exclusive benefits to cyber criminals.

However this perception may not be entirely correct. Bitcoin is just an innovative virtual payment system. It can be used both for legal and illegal purposes just as cash can be used. The words such as “Mining”, “Currency” etc have got attached to the concept because it is easy to explain the relevance of the system to ordinary persons with such words.

2. You have said that it is risky to call Bitcoin a cyber-currency. Could you elaborate? Why is it safer to refer to Bitcoin as a document?

Normally the word "Currency" is reserved for use to represent what we otherwise call as "Legal Tender" which is always backed by a Government.

All legal tenders carry an assurance and in India, the issue of Notes is controlled by RBI. This regulated currency carries a "Promise to pay" the printed value in exchange like “Promissory Note” otherwise defined in the Negotiable Instrument Act. In fact Promissory Note is defined as “Instrument other than a currency note, that...”

When Bitcoin is represented as a "Currency", public may misunderstand it as "Legal Tender". Since Bitcoin is not a legal tender and does not have the backing of any authority it would be misleading to call it a "Currency". Any person selling Bitcoin under this perception may actually be accused of committing a "Fraud".

Also, if Bitcoin is projected as a "Currency" and as a replacement of the fiat currency for transactions, the existing laws automatically place a ban and make it criminal to deal with it as a replacement of legal tender.

An amendment of law is required to allow the co-existence of Bitcoin promoted as a "Currency" along with the notes issued by RBI.

It is better for the Bitcoin community to avoid this direct confrontation and settle for a term "Currency like Electronic Document" rather than "Currency" when a Bitcoin is to be referred to for promotion.

There should always a disclaimer in all communications promoting Bitcoin that

"Bitcoin is a peer to peer settlement instrument and not a currency backed for its value by any person, organization or Government."

3. We've seen some massive fluctuations in Bitcoin - especially as a result of Chinese and US government responses to it? Given the "floating stock" of Bitcoin in the market being low, do you think that this volatility will ever go away?

Volatility will remain until the currency matures. At this point of time if more Governments take a harsh view of the system, it may die and people may dismiss the phenomenon as a "Bubble". If it survives, then it may gradually achieve price stability if not at \$1300, somewhere around \$600/- It may then gradually increase due to the increase in the cost of mining and increase in demand. If say RBI gives a positive advisory, one need not be surprised if the value soars back to over \$1000/-.

I have a suspicion that recent Chinese measures which appear negative are only a strategy of the Chinese Government to keep the currency depressed for some time so that they can acquire some stocks before pumping it up once again with a positive announcement.

Presently Bitcoins are traded as a "Whole" and hence the floating stock is low. If Bitcoins are in due course used in the sub divided form such as "Milli Bitcoins" (1/1000) or "Micro Bitcoins" (1/1000,000) or "Satoshis" (1/100,000,000), then the stocks would dramatically raise.

In my opinion, a Milli Bitcoin at \$1 will be less threatening to the regulators than a Bitcoin with a value of \$1000. It is already time now for the Bitcoin community to promote Milli and Micro bitcoins instead of the whole Bitcoins. For example, one milli

BTC would be worth Rs 60 (\$1) and one micro BTC would be valued at only 6 paise and one Satoshi would be valued around 0.06 paise. If such currencies float around, no regulator would be worried.

4. On a related note, since the maximum number of Bitcoins that ever be mined is 21 million, do you think that it will become an investment instrument and the original idea of a transactional currency will be lost?

Once public start using the subdivided versions of Bitcoins, it can retain its transactional use. Investors can always invest in whole Bitcoins or even in higher lots.

4. What do you think are the closest parallels to the bitcoin rage?

Really speaking there is no parallel that reflects the "rage" and "popularity".

The concept of a virtual currency which can be earned through a digital activity and later converted into legacy currencies perhaps started with the "Lindens" promoted by Secondlife.com.

I had myself promoted another idea way back in 2002 called "Digital Value Imprinted Instrument System" which represented money value in terms of a data base but created with legit currency and managed with zero value physical tokens that can be impregnated with value by the citizen himself. I had even suggested that this system can be used by RBI to issue very high value currency notes.

However, Bitcoin which belongs to the family of "Crypto Coins" is a completely different idea. Here Bitcoin is a "Reward" from a "Peer to Peer Society" for doing the service of "Verifying Monetary Transactions involving Bitcoins already issued and in circulation"

The innovative idea of creating a public ledger of transactions (Block Chain) and rewarding the efforts of creation of an electronic document that captures a set of transactions every 10 minutes and bundles them into a document with a designated hash value limit, with an issue of fresh Bitcoins and calling the process as "Mining" is unparalleled.

4. What should Bitcoin enthusiasts in India do next?

If one can mine Bitcoins or Litecoins or any other coin without too much of investment and efforts one is welcome to do so.

Investing at current values is a speculation and buying Bitcoins from an unidentified source is a huge risk as the holders may be dispossessed of their holdings if the Bitcoins they purchased are identified as "Stolen" or otherwise "Tainted". Additionally loss arising out of fluctuating value is also a concern for the investors.

Traders and others involved in Bitcoin promotion must start a dialogue with RBI and convince the authorities to provide some kind of clarification that RBI may not come down on the system with a Ban.

My own opinion is however that RBI has no legal right to ban Bitcoin per se. It can only ban the promotion of Bitcoin as a “Currency”. However in order to ensure that no knee jerk action is initiated by the regulators, the Bitcoin community has to ensure that a dialogue with the RBI is initiated at the earliest.

5. You have said Bitcoin mining should be encouraged and purchase of Bitcoin should be regulated. Can you elaborate?

To appreciate this point it must be understood that “Bitcoin Mining” is an activity where the computer is used to create a hash value with some pre-determined restrictions.

The hash value is of a document that tries to put together some recent transactions along with some standard information. To get the hash value that meets the pre designated conditions, one has to input a variable and keep on creating the hash values by trial and error until the goal of finding the hash value with the requisite condition (eg: it should start with a minimum number of X zeros) is reached. This requires millions of hash values to be created as quickly as possible and therefore depends on the computing power. If a person is able to create the right hash value and is the first to do so within the designated time window, he gets rewarded with an issue of fresh Bit coins and therefore he is called a “Miner”. The reward is recorded as the first transaction in the next block as a credit to his Bitcoin wallet address.

Thus the so called “Bitcoin” is an information that reaches the Bitcoin wallet of the successful miner stating in effect “Congratulations. You are the successful miner of the last block. Here are the 25 bitcoins as reward for your efforts”. Each of these Bitcoin says in effect “This is the part of bitcoins issued in block number xxxxxx”. The Bitcoin is therefore an electronic document generated by the Bitcoin protocol that runs on the peer to peer network that accepts the contribution of the successful miner. It is to be treated as a collective confirmation of the reward rather than “Promise to Pay” as is contained in a currency.

For this activity the miner needs to receive broadcast of recent transactions and publish his results back to the network. For this he needs to be connected to Internet.

Processing requires use of appropriate computer chips and software for hashing. It uses electricity as well.

When very high levels of processing power are involved, computer gets heated up and needs to be cooled. This also requires energy say for running a fan or otherwise cooling the system.

Thus Bitcoin Mining is an activity with several inputs such as the right computer, right software, internet connectivity, electricity etc and at the end there may be an output which has a value. This activity is therefore an “Industrial Activity”.

When miners join “pools” they are collaborating like in an outsourced software activity.

But for the fact that foreign exchange has to be used for importing high speed hashing power (eg: import of ASIC cards), and that it may require the use of electricity which may be scarce in some places, Bitcoin mining is an activity that simply uses the computer and creates value. It has the potential of creating wealth locally which can be exported and foreign exchange earned.

Hence I consider Bitcoin mining as an “Export Oriented” activity and if successful can create exportable local wealth. This is true of Bitcoins as well as other crypto coins that may become popular in the days to come.

Hence I would like to see a systematic efforts to encourage “Crypto Coin Mining Farms” to be set up by interested persons as a legal activity and promoted.

Of course if Crypto coins mined donot have a value, it would be like developing a software that has no buyers or becomes obsolete soon. It is a business risk that the miner has to undertake. If however he is successful, the country benefits while the miner makes super profits.

6. What are the various organizations and laws that already cover things like Bitcoin?

Two organizations which would be directly concerned about regulatory oversight are the RBI and SEBI.

Since Bitcoin is perceived to be a “Currency”, RBI would be interested in ensuring that its role as the sole issuer of “Notes” is not challenged.

RBI would also be concerned about the foreign exchange transactions involved in the buying and selling of Bitcoins in India and would like to license the traders like the authorized money exchangers or authorized dealers of foreign exchange.

SEBI would be concerned about the exchanges that operate to buy and sell Bitcoins against rupee or other currencies since the activity is similar to stock trading and public may lose heavily if the operators are unscrupulous.

But we must record that RBI does not have a power to de-recognize Bitcoins without getting ITA 2000 amended. They can issue an “Advisory” in the interest of the public. Perhaps they should issue a proper advisory so that public are not mislead.

RBI can take penal action for any foreign exchange violations. However before embarking on such action it is better for RBI to also issue a caution notice to the traders

that any foreign exchange earnings have to be brought to the country within the stipulated time and any foreign exchange outgo should be within the limits permitted under import policy.

SEBI has the control on commodity exchanges and hence would like to extend its control on the trading of the virtual commodity such as Bitcoin or other crypto coins. It may like to license Bitcoin traders similar to the stock brokers.

However, SEBI also can only issue an advisory at present and may not be able to interfere without some change of law.

The trading if any with the involvement of foreign exchange receipt or payment falls in the joint domain of SEBI and RBI.

Income tax authorities may also be interested in ensuring that they get a share of the pie when investors make profits. This would not be different from super profits made in certain transactions such as identification of land etc. Issues involved would be short term or long term capital gains, TDS etc. May be “Sales Tax” will also be discussed at some point of time.

However if a person loses his Bitcoin through theft or otherwise, it may invoke the provisions of ITA 2000 as amended in 2008 for providing compensation for loss or for prosecuting the persons responsible for a wrongful loss. Such complaints for recovery of damages have to be made to the “Adjudicators” appointed under ITA 2000.

Prosecution of criminals will be through the Police to whom the affected person may complain.

The traders and exchanges would be considered as “Intermediaries” under ITA 2000 and need to maintain necessary privacy and security controls.

It must be added however that at present the Indian share of the Bitcoin market is too insignificant for any regulator to be alarmed except on the basis of principles and harnessing future opportunities.

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