

Virtual currencies: a threat or boon to India?

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Abstract

We all are living in an excessively active digital world, where actually everything is fostered by the internet. We have built a virtual world parallel to the real world, where virtual currency depicts a new asset division. Virtual currencies or a "cryptocurrencies" such as "bitcoins" are created by a series of steps called "mining" with the help of advanced computer software programmes.

In today's era virtual currencies are basically a globally accepted means of exchange that proceed through computer wallets and does not have any tangible structure.

But for the sake of security, each transaction can be apprehended and authenticated since it is based on "blockchain technology". Each holder of currency is known by an account (computer wallet ID) and transactions can be made worldwide. This leads in savings of cost as there is no currency conversion charges or other transaction fees.

This paper provide a glimpse of role and functioning of virtual currencies contemporary domain.

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Definitions

According to the definition provided by European Central Bank in its report titled "Virtual Currency Schemes" published in October 2012 –

"A virtual currency is a type of unregulated, digital money which is issued and usually controlled by its

developers and used and accepted among the members of a specific virtual community."

In 2014, the European Banking Authority defined virtual currency as "a digital representation of value

that is neither issued by a central bank or a public authority, nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically".

What are virtual currencies?

Virtual currencies are digitally operated currency or electronic money, which do not exist in tangible form as coins or notes. Virtual currencies first come out about 10 years back. Many crypto currencies started in online gaming communities or on social media. Bitcoin and Ethereum's Ether are some famous virtual currencies traded now a days.

If another person is willing to accept them, they can be used as a form of payment. Their value can fluctuate significantly, and sometimes may not be accepted in many places. They are digitally secured by cryptography, but has no legal tender as they are not issued by any Government.

Usually; payments are made online with virtual currencies, even though some shops can also accepts them as payments in-store.

How they work?

Virtual currencies operate on a coequal system. Virtual currency holders transact directly with each other, and every transaction is usually recorded in a blockchain for that virtual currency. The blockchain works as a distributed ledger or database of all transactions entered into by all users of the virtual currency. Blockchain involves an authentic analysis drive that make transactions unalterable and lucent. The blockchain may although be publicly available.



You may purchase, sale or remit virtual currencies through the medium of an online platform or through dedicated self-service kiosks. Many applications are there that allow virtual currency holder to store its virtual currencies in a digital "wallet," and in that way the holder may spend virtual currencies at physical shops where they are accepted.

Users can also 'earn' or formulate virtual currencies. For example, in the Bitcoin network, users can participate by using computer-intensive software to certify transactions that have been made by the network and earn new bitcoins as a bonus.

Virtual currencies can be purchased or sold on a conversion podium by using conventional money. Dealing charges are charged and are typically based upon the trade value. Since virtual currencies have become more popular lately, neoteric ways to purchase and sale them have developed. For example, bitcoins can be bought or sold for cash through special ATMs.

Risks involved

Trading in virtual currencies involve following risks:

Extreme price volatility.

Lack of publicly available information regarding the fair value of virtual currency, leads to speculative forces pop up unit prices resulting in volatile price fluctuations. Apart from that, one can also lose its money because of collapse in demand and prices or if need to liquidate their holdings below the purchase price.

Sometimes the podium or people dealing with, may not have adopted required security measures which results in theft through hacking. For example, as in the case of Bitcoin exchange Mt. Gox, which had 850,000 Bitcoins stolen in February 2014 (valued at more than US\$450 million at the time), leading to its subsequent bankruptcy and closure.

Fraud and money laundering

Many companies that claims to offer platforms for virtual currency payment and other virtual currency related product and services make fraud regarding it. For example, in December 2015, the US Securities and Exchange Commission charged two Bitcoin mining companies with conducting a Ponzi scheme.

The obscure transactions involving virtual currencies, could be an attractive means for illegal activities and money laundering.

Less safeguards

Trading platform for virtual currencies are generally not regulated and has no statutory recourse. As a result, many investors have lost their significant amount of real money. A few countries are going to regulate virtual currencies, nonetheless these are not recognized as legal tender.

Fluctuations in value

The value of virtual currency, mainly depends upon its recognition at a given point of time, which is affected by various factors for example the number of people using the currency and the ease with which it can be traded or used.

Hacking of digital wallet

Every digital wallet has a public and private key, same as a password or a PIN number, which could be stole by a computer hacker. Since there is no central data bank, the user of currency system remain unknown about stealing of its digital currency.

In addition to this, there is no legal protection against unauthorized or incorrect debits from digital wallet.

Important players in virtual money market

There are so many virtual currencies exists in virtual money market and each of it has its own way of functioning, having its own founder(s), its algorithms and a changing level of anonymity. Similarity among all of them is their recent debut. For example Bitcoin,

the most “settled” currency which is still – by far – the most important one in terms of Market Capitalization and create recognition in 2009. Since then, so many virtual currencies have appeared.

Bitcoin, today still accounts for approximately 90% (approximately \$4.8bn out of \$5.3bn), of total Market Capitalization which consists of more than 650 virtual currencies. Others however, like for example XenCoin, have only lived for a couple of months and reached a Market Capitalization of a mere \$40k before disappearing.

Digital currency exchanges

Also called cryptocurrency exchange; allow customers to trade their virtual currencies in exchange of other assets, such as conventional money or distinct virtual currencies.

These exchanges can be work as market makers that typically take the bid as transaction commissions for their services or simply charge fees as a matching platform.

Mostly digital currency exchanges operate outside of Western countries, in order to avoid regulatory

Crypto currency market capitalization

Monthly volume rankings of top 25 currencies worldwide:(23-11-2017 to 23-12-2017)

NAME	SYMBOL	VOLUME(30 DAYS) (USD) (\$)
Bitcoin	BTC	319,644,265,728
ethereum	ETH	64,213,221,248
Bitcoin cash	BCH	58,381,629,888
Tether	USDT	43,542,510,784
Lite coin	LTC	39,546,521,216
Ripple	XRP	26,137,314,672
Ethereumcla...	ETC	18,530,851,584
IOTA	MIOTA	15,976,461,948
Qtum	QTUM	12,497,219,744
Dash	DASH	7,891,977,744
EOS	EOS	7,388,403,716
Bitcoin gold	BTG	6,617,564,176
Monero	XMR	5,811,640,328

oversight and complicating prosecutions, can also maintains bank accounts in different countries to facilitate deposits in various national currencies, may accept credit card payments, wire transfers, postal money orders, cryptocurrency or other forms of payment in return for digital currencies. Many can transform digital currency balances into unacknowledged prepaid cards which can be further used to withdraw funds from ATMs worldwide.

Some digital currencies are supported by real-world commodities for example gold.

Digital currency creators are oftenly anonymous to the digital currency exchanges.

Customers usually buy or sell digital currency from Digital currency exchanges, who then transfers the digital currency into or out of the customer's account. The funds kept in customer accounts may be of a real or fictitious currency.

CoinMarketCap

It is a cryptocurrency market cap and price checker with portfolio tracker. One can add its transactions to the real or fictional crypto portfolio and keep track over its investments with real time prices.

Z cash	ZEC	4,826,721,480
NEO	NEO	4,512,282,016
Stellar	XLM	4,360,737,710
Cardano	ADA	3,992,462,992
NxT	NXT	3,029,227,466
Verge	XVG	2,581,856,357
TRON	TRX	2,553,855,169
Omise Go	OMG	2,540,709,892
Einsteinium	EMC2	2,445,698,760
InK	INK	2,147,102,841
Hshare	HSR	2,070,281,850
NEM	XEM	1,952,117,385

Role of virtual currencies in benefit to Indian Economy

Global access

With virtual currency, the finance and technology will intersect in an ideal manner, in a way that soon it will be a part of national reserves of nation. In US, China and Scandinavian countries; mining for virtual currencies is a multibillion dollar industry.

Encouraging virtual currency operations and its usage will enhance India's chance to become a digital and financial hub in the lines of countries like London, Hong Kong and Singapore.

Cheaper and easier remittances

The current remittance business model of India is complicated and inefficient, despite having the world's largest inward remittance market which is more than \$70 billion per year.

In such scenario, virtual currency can make a huge difference as it can not only eliminate currency conversion charges but other transaction fees as well and also provide more transparency with the chain of historical records.

Financial inclusion

Virtual currencies represent a new global asset division and are growing at fast speed all over the world. Nations like India have to recognize the potential of virtual currencies, in order to avoid the

risk of cutting short potential economic gains and constricting reserves of a global assets in the near future.

Due to growing mobile access lower income people in India can significantly attain benefit from low-cost services that virtual currencies can provide, therefore making further progress in its financial inclusion efforts.

Apart from these, following are some various other benefits to use virtual currencies:

Greater liquidity and freedom of payment

More economically viable than traditional payment methods

More efficient, easy and instant

Independent from government regulations

Easily convertible into multiple currencies.

Indian Government take on virtual currencies dealings

DEFINITION OF CURRENCY UNDER FEMA

Under Section 2 (h) of Foreign Exchange Management Act, 1999

“It includes all currency notes, postal notes, postal orders, money orders, cheques, drafts,

travellerscheques, letters of credit, Acts of exchange and promissory notes ,credit cards or such other similar instruments as may notified by Reserve Bank of India.”

According to the definition provided by FEMA, RBI has the authority to decide whether a particular instrument comes within the ambit of currency or not and till date RBI has not recognised virtual currency.

The reserve bank of India, made a statement that it will not regulate virtual currency. It raised concern over the fact that virtual currency poses challenge in the form of regulatory, legal and operational risk.

Usage and its future in India

An estimated report reveal that there are around 30000 users of virtual currencies in India with an estimated transaction of more than Rs. 200 crore every year.

RBI has given various statement regard its position on virtual currency. In 2015 RBI governor warned about cryptocurrencies by saying that “it can be involved in money laundering, tax evasion and terror funding. But giving a ray of hope it said that though it will not regulate these virtual currencies now but will look into it, study and understand it in order to look into the possibility of regulating it in near future.”

According to an estimate due to the popularity of bitcoin, there is an increase in the number of cryptocurrencies and is estimated to be more than 150 in number.

Despite of various advantages, still there are various issues concerning to virtual currencies involving huge amount of risks. Therefore still they are illegitimate in India, as shown by following statements:

Crypto currencies; not legal in India, says ArunJaitely

With virtual currency gaining attraction among investors, Finance Minister ArunJaitely said that India does not recognise crypto currency as a legal tender. The government's position is clear, we don't recognise this as legal currency as of now," Jaitely

said when asked whether the government has taken any decision on crypto currency.

Earlier in August, Jaitely had informed Parliament that there are no regulations governing virtual currencies, including bitcoins, in India and the RBI has not given any licence to any entity/company to operate such currencies.

He had further said that taking consideration of concerns raised at various issues from time to time on increasing use of virtual currencies (VCs) and the regulatory challenges, the Department of Economic Affairs (DEA) constituted a committee with representations from DEA, Department of Financial Services (DFS), Ministry of Home Affairs (MHA), RBI, NitiAayog and SBI.

"The objective(s) of committee were to take stock of the present status of virtual currencies both in India and globally, examine the existing global regulatory and legal structures governing virtual currencies," Jaitely said.

No regulations governing virtual currencies in India: Jaitely

In a written reply to the Lok Sabha, Finance Minister ArunJaitely further said there is evidence that crypto currency are being used in the country and its market in India has seen notable growth over the last few years.

"At present, there are no regulations governing VCs including Bitcoin (BTC) in India. Further, RBI has advised that it has not given any licence to any entity/company to operate such schemes or deal with Bitcoin or any virtual currency," Jaitely said.

Recently, Jaitely had held an inter-ministerial meeting to examine risks related to VCs like bitcoins.

Conclusion

With the advent of new techniques, virtual currencies gained a lot of momentum to become a source of exchange. It solves so many problem like storage,



printing and overcome the hurdles in online payments by making charges free transactions. We Indians are progressing towards “Digital India” which will make virtual currencies more strengthened, but it requires to be regulated, as technology is always prone to be misused.

As mentioned by RBI Governor Mr. Raghuram Rajan, that if the virtual currencies are not regulated then it may create various negative impacts on the economy as discussed above.

After seeing the status of virtual currencies at present, to sum up it can be said that their use and popularity in India and foreign lands, can make them a good substitute to fiat currencies used at present.

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