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**Future of Blockchain and Cryptocurrencies: Global and National Perspectives**



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**Future of Blockchain and Cryptocurrencies: Global and National Perspectives**

# Introduction

Cryptocurrency has one name which overpowers all others. The ‘money of the internet’ has come to be known as bitcoin for most people. Bitcoin is the undisputed king of cryptocurrencies. The popularity of the same has risen in over the last 8 years. A major fact about bitcoin is that when making transactions on the platform, name or identity of the individual is not disclosed but only the public address is available. And there comes another name in the market which has held some major share of investments. There is a blockchain technology which means a ledger or a database is distributed. Blockchain is a digital ledger that is dispersed across networks. It is used in the cryptocurrency space to securely record every transaction between users. DLT or Distributed Ledger Technology was used by bitcoin in 2009 by Satoshi Nakamoto. Blockchain is simply not just limited to bitcoin only. The mystery technically can never be solved whether bitcoin came first or blockchain, just like the chicken egg theory.

About the blockchain technology, it is often termed as a thriving future technology that would change the shape of many industries across the globe. It basically provides a way to record and transfer data which is transparent, safe and auditable. The blockchain technology is disrupting many industries, such as banking. It is giving access to people for transferring of funds across the globe, including third world countries who don’t have the means to engage in traditional way of banking. Billions of people can transfer money from one country to another at a very low fee. Barclays has also made international payment system out of the blockchain technology. Secondly, industries such as cyber security is following the said technology as it is encrypted using advanced cryptography which makes it difficult for anybody to hack or make changes to the data without any authorisation. The technology does not engage middlemen which eliminates the leaking of vital data in cyber security. Another aspect wherein blockchain tries to dive in is forecasting. The technology plans to change the way how one does research, consulting, analysis and forecasting. The technology also takes over to overlook whether the intended party is receiving donations and whether it the charity made is going in the right hands or not. Blockchain will change the face of charity too as many people step back when they see the donation made by them does not go in the right hands.

In the pursuit to follow blockchain technology, not even gamers are lagging behind. They have realized that it is not something that only financial services and payments can derive fun from. There is one game called ‘GameCredits’ and it consists of an in-game payment currency for the gamers. It’s a peer-to-peer open source wherein it is controlled through a transparent blockchain network through which gamers receive pay-outs. There is another game as ‘Decentraland’, which is a VR platform wherein one can purchase virtual land which possesses the right to only him as per the blockchain. It lets you make your own virtual world or casinos and monetize it with a currency known as MANA.

The bitcoin blockchain is a permanent ledger wherein anybody can see how many bitcoins you are holding if they know your public address. It is displayed publicly. But if the users want to hide their transactions, then they can use VPN to hide their trade details but then also, it becomes difficult to trace and not impossible. Bitcoins are mined on the blockchain network, and they come into existence when miners successfully mine Bitcoin blocks. One fact about bitcoin being, that it’s supply is finite. There will only ever be 21 billion bitcoins and not more.

Ethereum has come to be known as the public blockchain platform with a smart contract functionality feature. It has been providing a form of decentralised virtual machine[[1]](#footnote-1) that executes peer to peer smart contracts and tends to use a self-anchored cryptocurrency called Ether (ETH).[[2]](#footnote-2) Every 12 seconds, on an average, a new block gets added to the blockchain with the latest transactions processed by the network and the computer that generated this block will be awarded 5 ETH.

# National perspective: India

The future of cryptocurrency is very bleak in India according to the new July 5, 2018 guidelines by the Reserve Bank of India (RBI). There is such hostility towards cryptocurrency as it does not fit in under the traditional banking system. At present, the investors of cryptocurrency have one guideline looming over them which clearly says that entities regulated by RBI such as banks are directed to terminate their existing relationships with firms or individuals who indulge in the trade of cryptocurrency. In the first week of April, the RBI banned the banks to deal or also to provide services to anyone who engages in virtual coins which are used for the exchanging funds all over the world. RBI gave a three-month buffer period after April’18 to the entities to wrap up their relationships with people who engage in the same.

In the circular dated April 6, the RBI reiterated that entities regulated by it have been prohibited from "providing any service in relation to virtual currencies, including those of transfer or receipt of money in accounts relating to purchase or sale of virtual currencies." The entities which provides these services, a band of three months was given to them to put an end to that activity.

RBI has asked its banks, its own regulated entities to stop providing services to individuals or businesses which deal in cryptocurrencies for fiat money (INR). This basically means that one won’t be able to buy or sell cryptocurrencies for INR through banks.

The Indian Finance Ministry stressed on the bitcoin scheme that there is “a real and heightened risk of investment bubble of the type seen in Ponzi schemes, which can result in sudden and prolonged crash exposing investors.”

People often die-hard of their habits and cryptocurrency is one such thing that people are not willing to leave. Instead of giving it up, enthusiasts are now finding alternate ways to transfer their funds and also finding ways on how to keep their business growing. Government must realize that illegal activities are bound to creep in when there is a clamp down. People get encouraged to get their brains to work on how to go around and get their work done. Legit suggestion for the government in my view is to regulate the cryptocurrencies to avoid illegal activities instead of banning it altogether. Dealers of cryptocurrency are hiring chartered accountants and legal advisors who can suggest alternate ways to continue in the said trade of virtual currencies like bitcoin, Litecoin, dash, ripple etc.

The result of the said act has come down to hit various people. Many day traders have withdrawn the cash out of their investments but the experienced lot of the trader class seems to be unfazed.

One thing is out in the open, that is if somebody has an internet connection and a bitcoin wallet, they can engage in transactions. According to the bitcoin experts, it can only be regulated and not banned. Interestingly, Cryptocurrency is not something that can get banned. The users who want to hold can always hold it. The users need to understand why exactly it came into existence. This was in the wake of the financial crisis. All the dealers of cryptocurrency are hiring their legal advisors or accountants to let them know about the alternate ways to trade in crypto market. The easy way to deal in cryptocurrency would be to buy and sell crypto to crypto, or to transfer the digital assets to international exchanges and sell the currency there if at all the Indian government plans to shut all ways.

The first largest multi cryptocurrency exchange in India is BuyUCoin which provides discounts and gives offers like referral programs in order to attract investors.

Indian exchanges which have a funding from the foreign venture capitalists have moved out of India, to countries which are more crypto friendly and serving as global exchanges.

The final outcome and execution of the RBI backed by the Supreme Court of India would define the future of various cryptocurrencies. On July 20th also, the news flash by Bar and Bench said that “Cryptocurrency: ‘Matter serious, could encourage illegal transactions’ RBI tells SC”. The final disposal of the petition wherein the fate of regulation of cryptocurrency would be decided would come by September 11.

Ripple (XRP), being the largest bank targeted blockchain protocol with its low fees combined with efficient systems is planning to beat bitcoin in India. It is basically trying to get 50 percent of the India’s finance sector.[[3]](#footnote-3) Vice President of Ripple, Asheesh Birla, plans to take over Bitcoin and become the most dominant cryptocurrency in India.

The mechanism of ripple needs to find the majority of bank users on its blockchain protocol and the Vice President also emphasized that the company will put its influence in the region to convince major banks like Wells Fargo to send payments to India via the Ripple network.

The gist of future on the Indian market would be influenced by the major players in the Global world. Japan has legalised cryptocurrency and China is planning to adapt Ethereum technology. Russia is planning to create its own crypto and USA is also positive about the cryptocurrency aspect. Hence, the decision of India would be influenced by the above-mentioned countries in some way or the other.

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# Global perspective

There are many countries such as Japan, Russia, Australia and Venezuela which have given bitcoin the legal tender and are regulating it. On the other hand, countries like Bangladesh, Thailand and Vietnam have tried to ban it.

## **Japan**

Japan specifically legalized bitcoin in April’17, its first decentralized cryptocurrency. Australia followed the league as the prices skyrocketed and got doubled. Japan’s stance came right after China’s crack down. Japan government has also decided to launch a digital currency named as ‘J-coin’ by the year 2020. The news was released in an article from the Financial Times, stating that Japan aims to "streamline the financial system" this way, and introduce a new cash-less system before the Olympic Games in Tokyo 2020. Japan is on for introducing its own digital currency but it’s willingness to work on the blockchain technology seems precarious. Japan’s Financial Services Agency (FSA) has recognized several companies as registered cryptocurrency exchange operators. The registration is important as it sets a prerequisite for the companies to be not engaged in money laundering and also of having strong computer system. The regulations that have been mentioned support the financial technology innovation and also protect the investors from fraud.

## **China**

On the other hand, China is in no favour of cryptocurrency as according to the country statistics, it comes with the baggage of financial instability. But the Chinese government backs the blockchain technology. China has banned Initial Coin offering and subsequently cracked down the crypto mining. It has banned offshore exchange of cryptocurrency. The local government-backed Xiong’An Global Blockchain Innovation Fund, for example, began offering $1.6 billion to Chinese blockchain start-ups.

## **Brazil**

In 2018, Brazil also banned the usage of cryptocurrency. The Superintendence of Institutional Investors’ Relations (Superintendência de Relações com Investidores Institucionais - SIN) of the Brazilian Securities and Exchange Commission (Comissão de Valores Mobiliários —CVM) asked the officers who were responsible for the management of investment funds to clarify the queries about cryptocurrency investments. The conclusion through technical interpretation is that cryptocurrencies cannot be classified as financial assets. Their direct acquisition by financial asset is also prohibited. The risks according to the CVM are very high in cyber security and custody. Risks are also involved in the legality of the future way of acquisition which is considered by the CVM in understanding the possibility of structuring of indirect investment in cryptocurrencies. The final verdict in terms of CVM is that the indirect investments be avoided.

## **Russia**

Russian regulators keep a cautious approach towards the usage and access of financial technologies in the market. In the year 2017, the Russian Central Bank issued an information letter titled “On use of private ‘virtual currencies’(cryptocurrencies)”[[4]](#footnote-4) in which it clearly stated that it is too soon to allow cryptocurrencies as well as other financial instruments which are at par with cryptocurrencies to the circulation and use at the stock exchange in Russia. The Russian Central Bank made sure that people know how risky dealing in cryptocurrencies is. The approach towards the discussed phenomenon is way too cautious if we see the Russian market. The attitude of the Russian regulators to other financial technologies became more positive over time. The Russian Central Bank even created a special division which was going to be responsible for financial technologies. Initial Coin Offering (ICO) was adopted in 2017 by the Russian President and it boosted the commencement of the cryptocurrency. ICO was done to regulate public attraction of monetary funds.

Two Russian regulators being the Central Bank and the Finance Ministry have started working on the preparation of regulation of the financial technologies market. They have also adopted the legislation based on questions of cryptocurrencies. Main trends in developing financial technology comes a draft law which says that “On Digital Financial Assets”[[5]](#footnote-5) The draft law basically talks about cryptocurrencies, mining, token, smart contracts and digital financial asset. The motive to draft law by the Finance ministry and the Central Government was very similar but they have different approaches to possibility of exchanging cryptocurrencies by using it as rubles or as foreign currency.

## **United States of America**

As a matter of fact, blockchain is not just limited to be used in cryptocurrency technology. It was broadened its horizons to new areas. The United States of America has recognized this phenomenon. U.S. state governments have realised how to deliver public services with the help of potential of the technology. There is one major issue wherein the state government would have to bring in changes to the current regulations which works for public services. The flaw is to remove or edit the existing data and invest into the new technology altogether. There is one major advantage of blockchain that once a data is there, it is next to impossible to remove it no matter how politically, socially sound you are. Also, the second generation blockchain such as Ethereum have a thing called ‘smart contracts’ – it basically refers to a software code stored on the blockchain that would execute a transaction automatically when certain conditions are fulfilled.

In 2017, the state of Illinois took a headstart with the Illinois Blockchain initiative, which calls in for a combination of state and county agencies to “collaborate to explore innovations presented by Blockchain and distributed ledger technology”. The state of Illinois aims to utilize blockchain and distributed ledger technologies to “transform the delivery of public and private services, redefine the relationship between government and the citizen in terms of data sharing, transparency and trust, and make a leading contribution to the State’s digital transformation.” For example, West Virginia used the blockchain network in the mobile voting process of 2018 elections.

From the research perspective, it has come to notice that many blockchain and cryptocurrency aspects are being looked into by the U.S government. There has been a drift in implementation and accepting of cryptocurrencies in the U.S. states. For example, California and New Mexico issued warning about investing in cryptocurrency and on the other hand, 20 states enacted regulations in favour of the cryptocurrency transactions.

Many states in the U.S. are exploring the potential roles of the technology in public and private services. Few states took a cautionary approach, for example, Colorado, a western state in the USA observed a Bipartisan bill to promote the use of blockchain for government record keeping. The Wyoming state legislature is processing bills which are favourable to blockchain technology. One bill which is known as SB 111, it would exempt cryptocurrencies from state property taxes, which in return makes Wyoming the most adjusting state with the idea of investing crypto assets.

## **Australia**

Till now, one thing is clear from the discussions that a centralized authority cannot control and regulate a phenomenon like cryptocurrency. They are meant to be completely decentralized and not surrounded by rules. Australia is not waiting for other countries to help forge its path. Rather, it’s creating its own and has already started with its plans such as exchange registration. The rules set by them are going to help the country and cryptocurrency in general. Australia may not be the biggest market for bitcoin (BTC) and other different cryptocurrencies, but it is a rather growing one. It has been come into notice that Australia comes 14th globally for BTC volume.

In April 2018 only, the Australian government announced tangible plans to enforce rules on cryptocurrency exchanges through the Australian Transaction Reports and Analysis Centre (AUSTRAC). One plan is discussed in the announcement as, “Digital currency exchanges (DCE), with a business operation located in Australia must now register with AUSTRAC and meet the Government’s AML/CTF [Anti-Money Laundering/Counter-Terrorism Financing] compliance and reporting obligations”. The country is trying to protect its citizens and at the same time, it is inculcating the technology and befitting it into the country. The latest step by Australia to have license exchanges indicates about the government which is trying to get in control of the cryptocurrencies in the country. The country is moving towards a positive outlook towards the digital currencies and also, it hints on to tangible evidence of regulation of cryptocurrency.

## **Venezuela**

Venezuela has accepted the phenomenon of cryptocurrency with open hands and in fact, it has launched its own currency called petro. "Petro is born, and we are going to have a total success for the welfare of Venezuela," President Nicolas Maduro said. The launch of the in-house cryptocurrency comes in force when the country is facing economic and political crisis. The government says that petro is backed up by gas, oil, diamonds and oil and is there to help US and UK sanctions. Petros would exist by the process of ‘pre-mining’ and the government would produce and control it.

In the initial phase, the petro would be sold in hard currency and also in various other cryptocurrencies but not in local bolivar currency. "The presale and initial offer will be made in hard currencies and in cryptocurrencies," Carlos Vargas, the government cryptocurrency superintendent told on one of the state TV shows. Vargas also mentioned that post the initial offerings, petro can also be sold in exchange of bolivar. President Maduro announced that "all citizens and companies will be able to purchase 'petros' on a specialised website with yuans, rubles, Turkish liras, and euros, as well as with cryptocurrenciessuch as bitcoin, etherium and NEM." Venezuela minister of foreign trade has also mentioned that the Brazilian companies would start welcoming payments through petro after the initial offering, so that it may be put to a greater use in the world market. This being said, there are different reactions too from US President as he has barred payments from such portals and announced that it is a scam by Venezuela’s president.

## **Bangladesh**

The laws regarding cryptocurrency were so draconian that in 2014, there used to be a law that anyone who deals or transacts in cryptocurrency would get 12 years of jail time. It was illegal to deal in the same. To corroborate the same, the inefficacy of the threat of such harsh sanctions came to light. A notice given by Bangladeshi Central Bank entitled “Caution on Bitcoin Transaction: Warning against online transactions in Cryptocurrency (eg. Bitcoin, Litecoin)” made its point that there exists a concern for the nation in the rampant use of digital currency. The document stated “As these are not legal tenders issued by any legal authorities of the country, no one can make any financial claim against these.” The notice also stated that those who are trading in cryptocurrencies are violating the Money Laundering Prevention Act 2012 and also warned the people to not make transactions in virtual currencies. The Bangladesh Financial Intelligence Unit (BFIU) and Foreign Exchange Police Department have currently come into limelight for searching for cryptocurrency traders. They have also been working under the assistance of Bangladesh Telecommunication Regulatory Commission (BTRC). Nazmil Islam, Assistant Deputy Commissioner of the Cyber Crime Unit passed on the information to Dhaka Tribune and said “We have already located a few bitcoin users, and are on the hunt for more, along with a few web pages which are being checked for authenticity. Investigating cryptocurrency trading is a complex matter.”

According to the sources, Bangladeshis who work in the freelance sector are the people who deal in cryptocurrency the most. They also have noticed that most of the cricket players are dealing in same. Meanwhile, a Facebook page named as “Bitcoin Exchange: Bitcoin Buy and Sell Bangladesh” has also been formed. Dhaka Tribune also said that the government is in no position to simply chase the users of virtual currencies when the crime rate is on the rise.

## **Thailand**

Bangkok Post reported a 100-section law which is based on the regulatory framework of cryptocurrencies and defines it as “digital assets and digital tokens”. It comes under the regulatory jurisdiction of Thai Security Exchange Commission (SEC). The Finance Minister has said that cryptocurrency can be regulated and cannot be banned. The SEC has also given a heads up in this matter.

With the advent of this era of cryptocurrencies, the sellers need to register their digital tokens in a matter of 90 days with the SEC. As per the sources, failure to do so carries a penalty of up to twice the value of the unauthorized digital transaction, or at least 500,000 baht (about $15,700). Sellers who do not comply with the same guidelines could also face a jail sentence of up to two years. The Ministry emphasized that these measures focus entirely on investor protection, preventing the use of cryptocurrencies for criminal activities, tax avoidance and money laundering. The Thai Bond Market Association (TBMA) is planning to implement a new registrar service platform which would combine financial technology with blockchain technology. There are ongoing plans to put it to practice during the current year to improve the growth of the secondary market.

# Conclusion

It is ideal to conclude that the blockchain technology is booming in the world and it is used for varied purposes that is, from voting counting to technology related to bitcoins. Digital currencies, and especially those which have an embedded decentralised payment mechanism based on the use of a distributed ledger called the blockchain technology. Different countries in the world are of the different opinion in accepting or rejecting the presence of cryptocurrencies. Some of the countries are welcoming it with open hands and a few of them are shoving it away by maintaining hefty volumes of regulations on it. The basic gist of the presence of cryptocurrencies can be brought down to one single point, that is, it can only be regulated and not banned. The regulations would need to be really strict in order to keep it intact and not make people use it. Bitcoin is basically of free of interest and anyone can indulge dealing in it.

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