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PAPER

Integrating Cryptocurrencies to Legal and Financial Framework of India

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Abstract With the ever-growing popularity of cryptocurrency in India as well as globally, it is potential as an agent of various illegal activities such as money laundering and cybersecurity breaches is also gaining traction in the global, national and regional debates. Considering its emergence in India, it is pertinent to examine the issues associated with the usage of cryptocurrency and the scope it entails for the Indian economy if allowed. The government of India has so far not identified it as valid tender due to its potential usage in hiding black money and in terror financing. However, the government has not necessarily closed the door to any future regulations of cryptocurrencies. Therefore, despite operating in a grey area, the sector continues to proliferate in India and the world. This paper briefly describes the nuances and current affairs related to cryptocurrencies across the globe. It further provides a legal and regulatory perspective of cryptocurrencies in India while also discusses various cybersecurity issues related to its usage and concludes with a list of challenges associated with its incorporation in the national legal regime and tries to provide a certain recommendation that can help guide the future regulation of this disruptive innovation.

Keywords: Bitcoin, Cryptocurrency, Cyber Security, Disruptive Innovation, Money Laundering, Terror Financing.

JEL Classification: G38, K2, K4, G210, G230, G28, E51, F30.

1. Cryptocurrency: an Introduction

When Satoshi Nakamoto (a pseudonymous individual or group) published the paper titled "*Bitcoin: A Peer-to-Peer Electronic Cash System*" in 2008, he/they would have hardly expected that the valuation of this cryptographic money, i.e. Bitcoin, founded

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a year later, would reach as high as 2300 USD per unit in less than ten years. Today, around 969 digital currencies exist globally, with an aggregate market capitalisation nearing almost 116 billion USD (Sharma, 2017). Introduced as a peer-to-peer electronic payment system, these cryptocurrencies allow an exchange of money between parties without any need for a formal banking system. They are also known as "Decentralised Digital Currency or Virtual Currency. This means that the cryptocurrency network is a decentralised digital currency network that is capable of being transferred directly between peers, while the transactions are maintained in a public ledger, available to all the users (Crosby et al., 2015). This decentralised control means that no single authority or institution controls the flow of transactions, supply or valuation of the currency. This digital payment system depends upon the cryptographic proof of the entire chain of the transaction and applies various cryptographic algorithms and functions to ensure the anonymity/ privacy of the users, who are thus recognised by an alphanumeric public key (Kessler, 2013). These transactions do not reveal the parties' identity but instead use their digital signature for identification, thus maintaining anonymity/privacy. The basic principle regarding the genuineness or the authenticity of the transactions is the cryptographic proof and not mutual trust, thus differentiating it from the traditional banking system (Kessler, 2013).

This paper will try to provide an overview of one of the major disruptive innovations of this century, i.e. the cryptocurrencies, by first analysing its features and understanding why it gained so much traction globally. Subsequently, it will try and analyse the advantages and risks associated with this disruptive innovation and how, if at all, they can be managed. Further, the paper looks at the position of cryptocurrency regulations in India while analysing major committee reports, the government's attitude and the Supreme Court's approach towards the same. Further, the next chapter highlights the global trends vis-à-vis cryptocurrency regulation and looks at the approach towards various countries like the USA, UK, and Russia. Finally, the paper concludes with appropriate suggestions highlighting the inevitability and importance of the cryptocurrency regime, especially in the post-COVID-19 recovery stage.

2. Research Methodology

Doctrinal research methodology has been adopted to analyse the legislative framework of cryptocurrency in India. Along with this, the methodology has been descriptive in nature wherein the authors. The data required for this research were both primary and secondary. The primary data source was judgements of the supreme court, government reports, ordinances and statutes. The secondary data was collected from the following sources: research articles, newspaper reports, books, journals, websites and law databases like Manupatra, SCC Online and Taxmann.

3. Features of Cryptocurrency

The most significant features of this disruptive innovation, which is growing in

popularity every day, are listed as follows:

- **Decentralised**

  Cryptocurrency is a decentralised currency, implying that any government or statuary authority doesn't control it. What serves as an advantage of this decentralised nature is no government regulations. Unlike other fiat currencies, these can be transferred to any part of the world without any restrictions.

- **Irreversible Transactions**

  Transactions carried on the Cryptocurrency networks are non-reversible. This saves the traders from dishonest claims' charge back' or the consumer-initiated payment-reversal-based system.

- **Pseudonymous Transactions**

  It is believed that Cryptocurrency transactions are anonymous since they are pseudonymous. To register in exchange for buying or selling Cryptocurrency, the user is required to provide his/her personal information. Every user is assigned two keys, i.e. a private key and a public key (Frankenfield, 2020). The public key can be shared with others across the network, but the private key acts as a password and is secret in nature and is not shared. The public key ensures that there is no double-spending, and the transactions are duly verified and recorded (Antonopoulos, 2017). It is worth noting that every transaction that has ever occurred in the history of the Bitcoin economy is publically accessible and viewable, and anyone is allowed to inspect them due to the public key and ledger.

- **Cap on Bitcoin and other Cryptocurrencies**

  Unlike other fiat currencies, the production of Cryptocurrency is limited as these cannot be printed but are mined. For example, the mining of Bitcoin is capped at 21 million and is estimated to be mined by the year 2140 (Zahid, 2015). The mining of such Bitcoins is done by miners who use sophisticated computer technology for solving complex mathematical problems. Bitcoin mining is a highly competitive process wherein the Bitcoin miners compete with all the miners present on the network, and in exchange, they get a certain number of Bitcoin as a reward.

- **Avoids Counterfeiting**

  Digital currencies can be reduced easily, and the risk of double-spending (digital currency being spent in more than one transaction) hovers. However, in Cryptocurrencies, the possibility of counterfeiting is less as it requires massive computational powers to generate. Furthermore, when such transactions are submitted in the network, the network ensures the validity of the address as well as the value, thereby making counterfeiting impossible to accomplish.

Thanks to such features, cryptocurrencies have disrupted the traditional ways of money transfer through banking and other financial institutions worldwide. As cryptocurrencies continue to gain traction, governments worldwide and their regulatory bodies have been pondering measures to regulate cryptocurrencies. As a result, the legality of

cryptocurrencies currently varies from country to country. While some countries are framing laws and measures, others are yet to react to this disruptive innovation. Furthermore, the potential use of cryptocurrencies in terror financing, ransomware, illegal drugs or arms exchange, and even various cybercrimes has raised the alarm among security and law enforcement agencies worldwide (Goldman et al, 2017).

The Reserve Bank of India has been keeping a close check on the ever-expanding use of cryptocurrencies in India and had even issued a warning in 2013, informing users, holders and traders of virtual currencies about the potential financial, legal and security risks (Reserve Bank of India, 2013). Further, it had issued a circular regarding the same, which will be discussed subsequently. The Ministry of Finance likewise held a public discussion on regulating virtual currencies in May 2017. Moreover, since the Indian government's Demonetisation announcement, which was implemented on November 8, 2016, India has seen a rise in the adoption and usage of Bitcoins (KPMG, 2017). Therefore, it has become essential to examine the various aspects of cryptocurrencies across the globe and India and discuss the issue of cybersecurity and consumer protection in the digital payment ecosystem.

4. Cryptocurrency as a Disruptive Innovation

The term ***'Disruptive Innovation'*** was coined by Professor Clayton Christensen (2015) as a "*procedure by which an item or service flourishes at first in simple applications at the base level of a market and afterwards stubbornly climbs upmarket, and in the end, displaces the established contenders*." There have been various occurrences where disruptive innovations have displaced well-established competitors. One such example is the displacement of Short Messaging Service (SMS) by WhatsApp. These disruptive technologies have a lot to offer to the users in terms of value, cost-effectiveness, ease of use and simplicity (Lee, 2013). Considering cryptocurrencies with this viewpoint, they can displace the existing financial frameworks.

4.1. Advantages of Cryptocurrency

The success of cryptocurrencies could be credited to the advantages they entail:

- **Privacy Protection**

  One of the most significant advantages of cryptocurrencies is that they ensure the anonymity and privacy of the transacting parties. The parties can use pseudonyms and can thereby conceal their identity and information. This was indeed one of the most significant factors behind the tremendous jump in investments in cryptocurrencies in the first place.

- **Cost-Effective**

  Another advantage of cryptocurrencies is that they have a single transaction amount, and their transaction fees are very modest. Electronic Transactions attract high fees and charges, and cryptocurrencies solve this problem by having a single currency globally, eliminating third-party clearing houses/gateways,

and cutting down the cost and time delays (Kumar, 2017). The presence of an inbuilt security and fraud prevention mechanism also substantially reduces the transactions costs of these currencies.

- **Lower Entry Barriers**

Possessing a standard bank account or a card requires massive documentation and verifications, let alone the accounts and cards for international usage. Moreover, there is uniformity regarding the criteria set by such financial institutions and intermediaries. Cryptocurrencies solve such issues by lowering the entry barriers as they are free to join, and the users are not required to go through the verification process such as identity and address proofs.

- **Alternative to Banking Systems and Fiat Currencies**

The traditional banking sector is characterised by tight control and regulations, while cryptocurrencies offer a more flexible, reliable and secure means of exchanging money outside the rigid control of the national or private banking systems.

- **Open Source Methodology and Public Participation**

Cryptocurrencies are based on open source methodology, wherein the software source code is available publicly for review, development and scrutiny. The ecosystem of such currencies is a participation-based model wherein the development, bug reporting and fixing etc., are checked and done by the broad user base, rather than an individual or an institution (Matsuura, 2016). They have built-in quality control and self-policing mechanism for building practices, frameworks and protocols.

- **Immunity to Government-led Financial Retribution**

Governments generally have the authorisation to freeze or seize the users' bank accounts, but it becomes incapable of doing so in the case of cryptocurrencies. The cryptocurrencies are immune from any seizure, thus increasing the investor confidence in such form of currencies (McDowall, 2017).

4.2. Risks associated with Cryptocurrency

Despite such potential and advantages, cryptocurrencies possess *certain risks that can disrupt the **cybersecurity** and other mechanisms of the states*. The major risks associated with these currencies can be classified into **two aspects**, i.e. *Risks involved in Cryptocurrencies* and the *Risks from the use of Cryptocurrencies*. Such risks are highlighted below:

- **Wallet/Exchange Security**

The wallets generally store the keys and transaction history of various users. Such wallets and exchanges are the weakest links in the entire cryptocurrency ecosystem. The users are prone to the risk of losing their entire holdings if they at all lose the encryption key or lose the key due to theft or hacking activities. In 2014, 480 million USD in Bitcoins were stolen from Tokyo's Mt. Gox Exchange (Floyd, 2015). The world has witnessed many such instances in recent years.

- **Hijacking/Distributed Denial of Service (DDoS) attacks on Cryptocurrency System**

Cryptocurrencies are open source platforms that are kept up and running by the pooled resources of the miners. Such a platform is prone to cyber-attacks and other similar hacks, which might slow down the services or even make the trading platforms inaccessible (Floyd, 2015). Many studies have shown that cryptocurrencies are prone to hijacking and other internet related attacks (Apostolaki et al., 2017).

- **Uncertainty in the Regulatory Environment**

A significant risk associated with trading in such currencies is the ambiguous regulatory framework. The future of cryptocurrencies will depend on how the countries' regulatory frameworks are devised and implemented. There is no certainty at this moment as different countries have approached these currency issues differently.

- **Lower Acceptability and Lack of Liquidity**

Cryptocurrencies function outside the regulated and managed banking systems. So the market access gets limited to the well-known cryptocurrencies, i.e. those with high market capitalisation. For other not so popular cryptocurrencies, there is a lack of liquidity. Also, the acceptability of such a form of currency in the market is very limited as per the current market scenario.

- **Price Volatility**

The volatility of the financial instrument over a period of time determines the risk level associated with the instrument. Cryptocurrencies are extremely risky and are prone to substantial price fluctuations. Cryptocurrencies lack any vulnerability index yet and are a risky investment.

- **Uncertainty over Consumer Protection and other dispute settlement mechanisms**

Cryptocurrencies are decentralised, and therefore it lacks any central authority for mediation and dispute redressal of the users. The transactions are irreversible, making the users vulnerable to fraud as they are void of any safeguards.

- **Potential Use for Illicit Trade and Criminal Activities**

Cryptocurrencies are decentralised and beyond the control of any authority. This factor has majorly facilitated their absorption in the black market and its related activities. Regulatory bodies have raised concerns that such accounts cannot be seized or examined, creating problems in law enforcement. As per reports, many crime groups have been operating through Bitcoins for payment in exchange for illegal activities during the last four years (Gil, 2017). The perpetrators of the Wannacry Ransomeware demanded ransom through Bitcoins (Mullin & Lake, 2017).

- **Potential use for Terror Financing**

Considering the factors mentioned above, cryptocurrencies can become the

new funding mechanism and mode for terrorist activities and outfits engaging in such activities. Cryptocurrencies have thrown open a new challenge before the regulators and law enforcement agencies are not well prepared to deal with such challenges as per the current ambiguous regulatory framework dealing with cryptocurrencies.

- **Potential for Tax Evasion**

The fact that government agencies do not regulate cryptocurrencies makes them a lucrative option for tax evasion. Payments through these modes can be used to avoid tax liability. Countries are yet to reach a consensus on whether the income earned through trading or mining of cryptocurrencies can be included in the asset's gross income or capital gains. Also, the authority of a state to enforce taxation on these currencies has been questioned. Considering such issues, the US has declared these currencies as intangible property, and trading in cryptocurrency is deemed taxable (Shome, 2017). Similar debates are being addressed in other countries like India and other countries.

Until and unless such risks are mitigated, the future of cryptocurrencies will continue to remain dubious. Cryptocurrencies are entirely new payment method, providing privacy and other benefits to the users, but it simultaneously poses risks to cybersecurity, law enforcement and other such issues. The authors will now analyse the legal and cybersecurity challenges this new mode of payment poses to the law enforcement agencies in India and how these currencies are regulated and controlled in the world and India.

5. Legal Issues Associated with Cryptocurrencies & Position in India

Legal aspects and issues associated with cryptocurrencies vary from country to country. Some countries recognise them as money, some countries categorise them as an asset and legal instrument, while some countries are yet to ascertain whether the cryptocurrencies are legal. India is one such country where cryptocurrency is neither illegal nor legal as no legal or regulatory framework is in place. The status of cryptocurrency is slightly complicated. For instance, it is illegal for commercial use in China but legal for individuals' transactions.

On the other hand, countries like Iceland have banned cryptocurrencies as clear cut laws are already in place banning their use. However, in India, cryptocurrencies do not have any legal framework in place and are currently unregulated. Therefore, various legal concerns exist vis-à-vis cryptocurrencies as described above in the form of various risks such as wallet security, lack of regulations, lower acceptability, lack of liquidity, price volatility, and lack of dispute settlement and redressal mechanisms.[1] Unlike banknotes, coins, etc., which are government-issued currencies falling directly under issuing authority's control and drawing their value as promised by the issuing authority, cryptocurrencies are decentralised in nature, making them difficult to be put under any government regulation. Further, there is a lack of an appropriate legal

[1] See Ch. 4.

framework to regulate the flow of virtual currencies in most countries, including India. Moreover, wallets managing cryptocurrencies are created and managed by independent private companies as there are no internationally binding laws in place. Therefore it is difficult to impose liability in case any loss is caused to the customer or any financial crime is committed through these wallets. Because of the loopholes present in some countries' legal and taxation system, one can misuse features of cryptocurrencies like anonymity for the purpose of tax evasion by hiding assets. This online route of transacting in cryptocurrencies has made it easier to evade border taxes as they can be cashed out when inside the country. Money laundering is a substantial legal challenge while dealing with cryptocurrencies because of their flow between countries with little or no supervision as these are not bought through banks (Bloomberg, 2017).

There are various security issues, as explained above, concerning cryptocurrency transactions, which are Hijacking, Denial of Service attacks, Potential for use in illicit trade, funding terrorism and tax evasion.[2] Moreover, issues like Spoofing and Phishing attacks, Insecure Initial Coin Offerings, which is used to raise funds through buying and selling of cryptocurrency, Hacking of payment gateways and fraud at the trading exchanges are other issues that are affecting the growth of the virtual currency market in India and in the world (Vishwakama et al., 2018).

Because of these risks associated with cryptocurrencies, governments are taking cautious steps while responding to such disruptive changes in the financial system. The government of India and its regulatory authority, the Reserve Bank of India, have been keeping track of these developments. The RBI in 2013 had issued an advisory that dealing with virtual currencies can subject the users to unintentional breaches of anti-money laundering and combating the financing of terrorism (AML/CFT) laws (Reserve Bank of India, 2013). In 2017 again, the RBI affirmed its stand and cautioned the users, traders and holders of cryptocurrencies about the potential financial, legal, customer protection and security-related risks (Reserve Bank of India, 2017). Simultaneously, RBI also clarified that it had not granted any license or authorisation to any entity or corporation to deal with such schemes regarding Bitcoin or any other virtual currency.[3] In 2018, The RBI had issued a circular in April banning financial institutions from providing services to crypto businesses (Reserve Bank of India, 2018).

Further, the Securities and Exchange Board of India (SEBI) formed **'*Committee on Financial and Regulatory Technologies (CFRT)*'** which suggested that it has become essential to regulate Bitcoin transactions to ensure India's public issue norms are not breached (Securities and Exchange Board of India, 2017). Not only this, there are chances of undermining private placement norms by collecting money from random persons via Bitcoin Exchanges. Therefore, the SEBI Committee above also strives to ensure that Bitcoins, their derivatives or any other cryptocurrency are not used for funding illegal undertakings, nor can it be used as a medium to divert any sort of black money.[4]

Due to the rising concerns, the government decided to set up Committee on

[2] See Ch. 4.
[3] *Id.*
[4] *Id.*

Digital Payments headed by Mr Ratan P Watal in 2016 to examine the current status of virtual currencies and to analyse the global regulatory framework governing the same (Ministry of Finance, 2016). The committee submitted its final report recommending the inclusion of financially and socially left out groups and integrating evolving disruptive technologies in the market while safeguarding the security of Digital Transactions and providing level playing to all players. It also suggested inter-operability of the payment system between banks and non-banks, up-grading the digital payment infrastructure and institutions and a framework to recognise innovations and prominent efforts facilitating digital payments.

Further, in 2017 Dinesh Sharma Committee suggested a total ban on cryptocurrencies. Due to strong public reaction, another committee headed by Subhash Chandra Garg was set up in 2018, which has been working on a draft law/framework for cryptocurrencies. Online cryptocurrency exchanges have expanded in India. Zebpay, Unocoin, Coinsecure and Searchtrade are some of the famous Bitcoin start-ups. These are basically self-regulated trading platforms that employ strict customer identification procedures like Know Your Customer (KYC) and monitor transactions capable of being suspicious in nature to curb criminal activities like money laundering and terror financing. These start-ups have also formed their association known as the **'*Digital Assets and Blockchain Foundation India*'** for supporting the use of digital assets like Bitcoin, Etherium etc., within India. This association aims to educate people about the risks involved while investing and trading crypto tokens and best industry practices (Kastelein, 2017).

In November 2017, a Public Interest Litigation (PIL) was filed before the Hon'ble Supreme Court of India by an activist Mr Dwaipayan Bhowmick cautioning about the dangers of using Bitcoin as it is devoid of any control or regulation currently in India.[5] The petitioner highlighted cyber-attacks *ransomware* wherein hackers demanded Bitcoins as a ransom for releasing stored data and computer systems. The three-judge bench of the Apex Court comprising of Chief Justice Mr Deepak Misra, Justice A. M. Khanwilkar and Justice D. Y. Chandrachuda, hearing the PIL, issued an order to the Ministry of Finance, Ministry of Law and Justice, Ministry of Information and Technology, SEBI and RBI, directing them to set up ***a panel to frame regulations to control the flow of virtual currencies*** in India (The Hindu, 2017).

During the presentation of the Union Budget 2018, Finance Minister Mr Arun Jaitley stated that "*Cryptocurrencies are not a valid tender, and the government will take all measures to eradicate the use of cryptocurrencies in funding illegal activities or as part of the payment system*."(The Hindu Business Line, 2018) Because of the potential use of cryptocurrencies to hide black money, the government in India is still reluctant to recognise it as a valid tender.

Recently, in March 2020, the April 6th Notification of the RBI was challenged before the Supreme Court in **Internet and Mobile Association of India v Reserve Bank of India**.[6] This case has given new hope to the cryptocurrency regime in India. The Hon'ble

[5] Writ Petition (Civ.) No. 1076/2017

[6] (2020) SCC OnLine SC 275

Supreme Court decided to set aside the RBI Circular on the ground of proportionality. The petitioners had challenged the RBI Circular banning the cryptocurrencies and had asked instead to regulate the flow of Bitcoins in the country. While setting aside the order, the court stated that to date, RBI has not come out with any report that has highlighted any loss or adverse impacts suffered by any entities regulated by it on account of the trading or exchange of virtual currencies within the country. The court stated that the government must consider regulating virtual currencies and that banning might be an extreme tool to deal with such disruptive innovation. Considering these developments, the Government has decided to introduce Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 in the Indian Parliament and may even consider launching its own digital currency. Thus, the government has not necessarily closed the door on future regulation of cryptocurrencies, nor does it mean that it is banned currently (Christopher et al., 2018). Therefore, despite operating in a grey area, the sector continues to grow. Therefore, considering its emergence in India, it is crucial to examine the issues and scope for the Indian economy.

6. International Legal and Regulatory Framework of Cryptocurrencies

The year 2017 witnessed countries like United States, Canada, Japan, and Australia taking a positive approach towards embracing Bitcoin as a legal tender. However, countries like Iceland and Sweden have paved restrictions towards accepting cryptocurrencies. The status of Bitcoin in certain countries has been discussed below:

6.1. United States of America

In 2012, the FBI published a document, '*Bitcoin Virtual Currency: Unique Features Present Distinct Challenge for Deterring Illicit Activity*', wherein the Agency highlighted apprehensions related to Bitcoin being used for illicit activities, such as trading of drugs, etc. Later, in October 2013, FBI investigations led to the shutdown of a website named '*SilkRoad*', which was known to be a criminal haven and was used for selling goods that were illegal in many countries, including narcotics, and used Bitcoin as a medium of exchange (Gabbatt & Rushe, 2013).

The Financial Crimes Enforcement Network issued guidance on Bitcoin in 2013. The enforcement network defined Bitcoin as a money service business (MSB) instead of a currency. In the USA, Bitcoin is regulated under the ***Bank Secrecy Act, 1970***. Suppose a business or an individual activity comes under the definition of MSB. In that case, they are required to comply strictly, among other things: i) all the registration facilities ii) anti-money laundering laws iii) maintain record keeping iv) prepare relevant reports, etc. (Trulioo Blog, 2016).

The International Revenue Services only recognise US bills and coins as legal tender. However, in the year 2017, at least 8 US States worked on bills accepting and promoting Bitcoin and blockchain technology, and a few of them have already passed a law in this regard (Yeong, 2017).

6.2. European Union

EU has no legislation on regulating cryptocurrencies. However, vide press release '*Bitcoin: Supervisory evaluation of Bitcoin and risks for Users'*, issued in December 2013, European Central Bank warned users of Bitcoin on the dangers of using virtual currency.[7] Further, the Bank also clarified that virtual currency users might be subject to taxes such as capital gain tax or Income tax.[8]

The year 2017 witnessed European Commission gearing up to propose penalties for cyber-crime involving cryptocurrencies. As such, in the coming months, the EU may issue directives for the creation of a European cybersecurity agency to formulate the stringiest regulations for those involved in cyber-crimes, including Ransomware attacks. Such attackers demand virtual currencies as ransom (European Commission, 2017). The EU is working with the UK to bring cryptocurrencies, mainly Bitcoins, within the ambit of anti-money laundering and counter-terrorism financial legislation (Kollewe, 2017). The move will ensure that the online platforms where Bitcoins are traded will carry out due diligence on customers and will report suspicious transactions. Such a move will bring digital currency-related activities within the purview of the national authorities.

6.3. United Kingdom

In the UK, the Financial Conduct Authority (FCA) is the regulator responsible for ensuring that financial services are provided to protect consumers and maintain the integrity of the market.[9] In the last year, several Bitcoin businesses have approached the FCA seeking clarification on the legalities of operating Bitcoin exchanges.

However, the FCA has not offered any constructive guidance or comment on the regulation of digital currencies. In fact, the FCA has gone as far as stating it does not regulate digital currencies and has no intention of doing so (Jankelewitz, 2014). The result is that Bitcoin businesses in the UK are not obliged to register with or be authorised by the FCA.

In the UK, the ***Money Laundering Regulations 2007*** set out who must help prevent money laundering and provide steps to achieve this. Customer due diligence is central to these regulations, and businesses should know where the money is coming from by identifying their customers.

UK is poised to come down hard on Cryptocurrency trading, especially Bitcoin, to address the growing concerns regarding the crimes being committed with it. The UK is planning to amend its Money Laundering Regulations, bringing digital currencies under the same regulations as the fiat money, wherein the traders will be required to disclose their identities and be required to conduct proper due diligence.[10] Such changes are expected to be implemented in early 2018.

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[7] European Banking Authority Opinion on Virtual Currencies (2014). Available at: https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf

[8] *Id.*

[9] Financial Conduct Authority (2016), About the FCA.Available at: https://www.fca.org.uk/about/the-fca

[10] UK pushing to include Bitcoin under Money-Laundering Rules (2017), Reuters. Available at: https://www.reuters.com/article/us-markets-bitcoin-britain/uk-pushing-to-include-bitcoin-under-money-laundering-rules-idUSKBN1DY0Y2

6.4. Russia

The Russian president recently clarified Russia's stand on cryptocurrency and demanded its officials to establish a legal framework to regulate digital currencies (Liao, 2017). The Central Bank of Russia has proposed creating Pax Crypto, the first joint multinational cryptocurrency for BRICS and EEU countries to increase the investments in Blockchain Technology and create a cashless society (Ozelli, 2018). The Russian Government has officially published the draft law entitled "***On Digital Financial Assets***, " regulating cryptocurrencies in Russia. The bill regulates cryptocurrencies and initial coin offerings and defines cryptocurrencies not as legal tender but as a "*type of digital financial asset*" and also characterises trading in digital currency as a taxable activity (Helms, 2018). The law also gives Russians the right to trade their cryptocurrency for other digital currencies and for fiat currencies.

The new regulation mandates that the operators of the exchange of digital financial assets can only be registered legal entities (Helms, 2018). The regulation outlines an approach that would regulate cryptocurrency across Russia tightly while still not ruling it illegal.

6.5. Japan

In April 2017, the ***Payment Services Act***, a part of Japan's Banking Act, was embedded to allow '*virtual currencies*' as a legal form of payment. The Cryptocurrencies were recognised for settlements, and the country allowed 11 digital currency exchanges. A clarification was issued by the tax agency categorising revenues from Bitcoin as income, allowing trading losses to be deducted from such income (Sano, 2017).

On December 15, 2017, it was reported that GMO internet, a Japanese company, will pay part of its salary to its employees in Bitcoin. From February 2018, the company, which is into a wide range of web-related businesses, will start paying up to 100,000 Yen per month by Bitcoin to its employees in Japan (Presse, 2017).

6.6. Venezuela

People belonging to economically weaker sections and wealthy business leaders exchange their Bolivars, i.e. Venezuela's currency, into Bitcoin. On the one hand, the concerned authorities have fined and arrested people who use computers to earn Bitcoin through 'mining' operations as these results in high consumption of electricity, which the state bears. On the other hand, the authorities have allowed trading in Bitcoin (Helms, 2017).

On December 3, 2017, Venezuela launched its own cryptocurrency named '***Petro***'. The primary reason behind Venezuela's move on cryptocurrency is the enormous financial crisis the country is facing due to the USA government's financial sanctions (Noack, 2017). The said sanctions are paralysing its ability to move money through an international bank, causing economic distress to its economy.

6.7. Turkey

As the central bank of Turkey faces hyperinflation and rising inflation, it is on its way to adopt Central Bank Digital Currency (CBDC) in the second half of 2021 as a pilot project. The idea of CBDC is directly inspired by cryptocurrency, but CBDC is issued by the State and hence a legal tender.[11]

6.8. The Bahamas

The Central Bank of Bahamas launched "sand dollar" in October 2020, making it the first CBDC to be launched in a country.

7. Conclusion and Way Forward

As far as future discourse on legality or regulation of cryptocurrencies is considered, the government might adopt the following course:

- Allow cryptocurrencies to grow as per the market forces without any intervention;
- Regulate the cryptocurrency regime while ascertaining its legal status as a legal instrument or capital asset along with adopting measures for preventing the potential risks as discussed above;
- Forbid the use of cryptocurrencies considering the security risks and interest of the users.
- It can also introduce Central Bank Digital Currency (CBDC), as is being done by various countries globally.

However, keeping in view the rising interest of people in investing in cryptocurrencies, technological advancements, state practices and entrepreneurs in this field, it is significantly less likely that the use of cryptocurrencies would be banned in India. Hence, if further growth and development of cryptocurrencies in India and their adoption in the financial system occur, they will have to be regulated under close supervision and scrutiny, especially during the initial phase of its lawful adoption. For developing nations like India, disruptive innovations bring their own set of benefits and challenges. Since the developing countries are at the lower end of the technology adoption cycle, the developments or novel ideas in disruptive innovation are generally viewed against the existing policies, processes and technologies. Therefore, there might be some hesitation in the early phase of adoption or integration of cryptocurrencies as legal tender, but with *proper regulation* and *adoption of international best practices*, the worth of cryptocurrencies could be realised.

In case the cryptocurrencies are recognised as a legal instrument and given authorisation as an electronic payment system, it shall fall under the purview of the RBI, and *commercial transactions and capital gains could be subjected to tax,* and likewise, *foreign payments could be brought under the auspices of Foreign Exchange Management Act* (FEMA). In terms of benefits, it can *reduce the cost related to remittances* and *fascinate future business entrepreneurs resulting in innovation, job and wealth creation*.

[11] TRT World (2020), Turkey set to Pilot Digital Currency in 2021. https://www.trtworld.com/magazine/turkey-set-to-pilot-digital-currency-in-2021-42780

In a landmark judgment of Internet and Mobile Association of India v RBI, the Supreme Court has struck down the RBI's curbs on cryptocurrency, terming the RBI circular of April 2018 as illegal.[12] However, RBI has decided to review the ruling, which will go a long way in deciding the future of cryptocurrencies in India.

As far as the issue of price volatility is considered, which exposes the users to fluctuating costs resulting in losses, it is undoubtedly beyond the control of the government because diverse factors determine the prices. Nevertheless, a broader user base and acceptability is likely to stabilise the prices. Domestic laws can prevent the users from frauds, but as far as dispute settlement is considered, State will have limited jurisdiction because of the decentralised structure in which cryptocurrencies operate where ledgers and parties are spread across the globe. Cryptocurrencies by design ensure that the anonymity of the transacting parties or their privacy while transactions are being made, is preserved. However, while regulating the cryptocurrency regime in India, there might be requirements of mandatory KYC norms, PAN Number, Adhar for trading, sale or purchase at the authorised exchanges.

With the mounting user base and latest increase in Bitcoin's value which is one of the most famous virtual currencies available, there are more and more obstacles that need to be tackled, like the need for a legal framework and regulating authority, awareness about the use of wallets, transaction processing as well as risks associated with virtual currency transactions. Therefore, it can be said that Cryptocurrencies have got great potential to become a global currency. Even in countries where the authorities ban its use, it is still an issue to restrict the use entirely without internet censorship. So it will not be wrong to say that there is vast growth potential and benefits of incorporating virtual currencies into India's legal and existing financial system provided concrete measures are taken to prevent security issues and illicit activities by designing and implementing robust cybersecurity frameworks and enhanced security awareness. Moreover, the adoption of digital currency with sovereign backing is gaining further prominence worldwide owing to social distancing and concerns regarding cash payment during pandemic situations like COVID-19. Hence the shift towards digital payments is gradually becoming inevitable.

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