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## Prospects of Digital Currency in India - A Way Forward

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## Abstract

The era of information and communication technologies has created many opportunities in every aspect. The field that has been benefitted the most from these recent developments in the financial and business sector. The scope and speed of evolution in technology, customer perception, and wide acceptance indicate that these technologies and disruptions will transform the finance and banking sector as we know it, providing both opportunities and challenges to financial institutions. Systems that have traditionally been used for savings, investments are not well suited given the scale and agility required for the digital age. Keeping in mind this array, financial institutions are responding with new digitization and innovation initiatives, using analytics, cloud technologies, and other new alternatives to respond to customer expectations. In a country like India, with a large economy and a despotic regime, the country shows decent economic growth even after having a complex system of arbitrary rules and regulations. Amidst all the growth, there is a huge scope of transforming the investment and lending patterns, with the help of technologies becoming more customer-centric and efficient. So, the technologies like blockchain are looking to drive innovation across various industries in India. In the era of blockchain, cryptocurrencies are the main part of it. They are said to be the most disruptive technologies in this area. This paper is an attempt to find the future of digital currency in India from the international experience.

Keywords: Digital Currency, RBI, India, Blockchain, Cryptography.

## 1. Introduction

The digital currency was introduced to the world in 2009 in Bitcoin after the publication of White Paper by Satoshi Nakamoto in 2008. It was then introduced as an alternative currency where

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online payments can be sent directly from one financial party to another using a peer-to-peer electronic cash system. Bitcoin was distinguished from the paper currency based on the absence of one of the most important features of paper currency, i.e., it does not act as a medium of exchange for a country [1].

One of the advantages of using cryptocurrency (digital currency) is that it helps the transacting parties to remain anonymous. Bitcoin, Eherteum, and Ripple are some of the most popular digital currencies. After a year of its introduction, demand for digital currency, specifically Bitcoin, began to increase gradually and then suddenly. Till February 2011, bitcoin climbed to roughly around \$1.00, and then after four months, it was trading around \$30. The price hiked to around \$290 in mid-2015, and it is no news that bitcoin gained popularity and its trading zoomed out of the roof when it was trading in January 2016. It was trading at \$429 per coin and reached its maximum of \$4269 [2].

Though these cryptocurrencies were gaining mass popularity in terms of an investment alternative and were being widely accepted in various businesses worldwide, the opinions relating to these have always been mixed. Some people think that paperless currencies will be the next big significant player in the area of the financial system. Some people also argue that we as a global world need something that does not come under the purview of the government and can be traded independently and imperatively. However, some people feel that they need some time to establish their confidence in the new currency system. Some analysts also argued that moving towards the regime may create information problems. Solving that problem may have some economic value [3].

Amidst all these arguments, some governments decided to adopt digital or cryptocurrencies. Some decided not to make any decision. Those who were left concluded that banning these currencies would be the best for the concerned economy. The governments who encouraged the shift towards digitalization of currencies did it because they felt it might be a way to deal with everlasting issues like money laundering, tax evasion, and boost competition.

The government, who gave their verdict against digital currencies, argued that great caution is required while using cryptocurrencies. They believed that, since any authority or government does not govern these currencies, there lays no protection in using them. So, if there is any technical glitch or platform malfunction, there will be no backing to the investors.

In early 2018, India's central bank, The Reserve Bank of India (RBI), announced a ban on the sale and purchase of cryptocurrency for entities regulated by RBI. So, cryptocurrencies are illegal in India. The ban was established on the perception that such digital currencies pose a potential financial and legal risk; the RBI warned the people about the probable security issues of customer safety using

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digital currency. The central bank said that payments of such currencies are on a peer-to-peer basis.

There is no established framework to recourse customer problems. About these issues related to

customer protection, legal status was not given to digital currency.

However, the question here arises that if the economies like Japan and Russia have legalized

the trading of such currencies, then why India, which is the cusp of digital transformation, is yet to

recognize this transformation officially. Though the countries like Japan and Russia have imposed

many stringent restrictions on their use, they still recognize it as their legal tender. Yes, such types of

currencies may indeed be used for money laundering or ransomware payments, drug deals, or

targeted assassinations. However, another question which thereby rises is can it be controlled? With a

packed system of rules and regulations, can India think of legalizing this currency and eliminate the

cons, which come with it? Many people made a huge amount of profit, and thus it became very

popular. However, even then, the popularity was in the maze of the questions surrounding it: should it

be made legal? Should the profits earned from it come under the purview of the tax regime or not? [4]

The stance of RBI with the use of currency was never very clear. RBI supposedly was

considering setting up its crypt, which was a step in the wrong direction. Cryptocurrencies are famous

because they allow their users to be anonymous and seek alternative stores of value. No fiat currency

can offer this combination. Moreover, trading in these currencies also eliminates the worry of

inflation caused by a sudden increase of money supply by the central bank because there is no central

bank. Maths governs the money supply.

So, after the ban of the currency and the government cannot come up with any alternative

future of digital currency is still hazy in India.

2. Literature Review

The future is moving towards technological advancements like blockchain. The future of

financial transactions is electronic transactions. Electronic transactions have been on the tremendous

rise with the widespread adoption of smartphones, where customers can transfer funds using mobile

apps very conveniently. These advancements in electronic transactions and the era of the world

moving towards digitalization and a cashless and paperless economy gave birth to one more such

technological advancement in processing payments, i.e., cryptocurrencies. Though the adoption of

cryptocurrencies depends on many factors such as security issues as perceived by the government, it

can see success in weaker currencies. However, even in these countries, these currencies will work in

a niche marketplace if they survive.

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Suppose the world is moving towards the adoption of cryptocurrencies. In that case, it is important to evaluate whether these currencies can perform the functions of money. It was argued that though digital currencies are the same as national currencies and can theoretically and practically serve their purpose. However, there are many arguments related to it. Some say that digital currency is way too inflexible to be the unit of account and store of value and cannot fulfill the functions of money.

However, the question remains even if cryptocurrencies remain in the niche market of the countries, what will be their use in the future depending on their characteristics and current usage. It is seen that cryptocurrencies, specifically Bitcoin, have always been used as an instrument of investment and gaining profits with the help of trading because of their high volatility and huge returns. They have not been seen as the alternative currency or medium of exchange for a much considerable period. It was also noticed that Bitcoin is in many terms different and uncorrelated from the asset classes we know, which are stocks, bonds, and commodities. Though virtual currencies have gained much popularity in the last few years, their use as a medium of exchange still depends on investors' balance and potential users. However, we cannot ignore the fact that the world is moving towards a digital world. Thus, we have to look at the possibility of Bitcoin being used as a legal medium of exchange in the world's major economies. A dual or multiple currency regimes is not new to the world. In the middle ages, many commodities such as gold, silver, shells, etc., have been used as a medium of exchange. So, if cryptocurrencies become an accepted alternative to fiat currencies, in which they both can coexist [5].

Though we can view and think of the possibility of using digital currencies as an alternate medium of exchange, we have to keep in mind the high volatility and unpredictability associated with these currencies, which makes these currencies susceptible to financial bubbles and crashes, which brings us to negative implications of the digital currencies. There is a dilemma in the minds of economic policymakers whether using digital currencies as a medium of exchange would be a viable solution when major concerns are related to them after the global financial crisis in 2008. These major concerns because these currencies are unregulated by the governments. Thus, this makes these currencies a classic price bubble, which can get enormous profits to some individuals and huge losses to some if got burst. These circumstances may lead to situations of financial instability in the economy. Thus, it was argued that these currencies could be adopted legally but with regulations, IT literacy, and IT technology.

Apart from technical problems related to cryptocurrencies, another problem attached to it is that cryptocurrencies are very price unstable. It has many financial and economic drawbacks attached

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to it, which is because, though any authority does not control these currencies, the economy depends

on them, which can cause inefficiency in the market [6].

It is established that if the world has to move towards digital currencies, many financial and

technological advancements are needed in the area. However, these new technologies do not come in

isolation. They bring new challenges for the regulatory authorities, like scope for money laundering

and financing of terrorism. However, some people are also of the view that instead of making

cryptocurrencies as the medium of exchange or legal tender, the government should issue a digital

currency because it can help cumbersome some of the cons of the privately issued digital currency.

However, to date, no bank has moved ahead in this line of direction. Suppose central banks of the

countries decide to start to issue digital currency. In that case, their main aim will be to standardize its

features and guarantee its credibility, stability, and supply.

The acceptance of crypto currencies globally and their development after that will have a toll

on the effectiveness of the existing regulatory bodies at the national level, which may increase the

need for the evolution of more effective institutions for global governance. These institutions will

help to fill the gap by strengthening international cooperation and effective functioning of

international institutions. The establishment of the system of such global governance will open the

doors. It will increase the potential and prospects of cross-border transactions in cryptocurrencies and

help in its widespread adoption [7].

Though the adoption of cryptocurrencies may be the future, it is safe to use digital currencies

as legal tender. If we focus on our national currencies, we may notice that gold reserves always back

them up, tax revenues, and government-owned assets. They are also backed up by the trust and

confidence of their users. However, cryptocurrencies are not backed up by any of these financial

assets. The valuation of around \$350 billion is based on sheer speculation and expectation that people

will invest in these currencies, making cryptocurrencies susceptible to the accusations of pricing and

financing bubbles.

Crypto currency is stuck in the haze of financial and technological instability. Research has to

be carried out to change the user's attitude and behavior towards it and see the cryptocurrencies from

new perspectives. The adoption depends upon many varied factors such as ease of use, value

formation, and government support.

The challenges possessed by cryptocurrencies are huge, but this is not stopping some

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governments from adopting the cryptocurrency. Many developed countries have adopted and

legalized digital currencies, but the situation is not the same in developing countries. For reference,

India banned the use of cryptocurrency in 2018. However, one developing country which is in

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support of digital currency in Malaysia, Till 2018, the Malaysian government did not provide a clear

stand on the use of digital currency. So, cryptocurrencies in Malaysia were neither accepted nor

banned. However, in 2019, the Malaysian government introduced the cryptocurrency regulation,

which came into effect on 15th January 2019. This order came in after the government realized that

the country has a very larger internet user base and that the inclination of these users is towards

adopting digital currencies. The government acknowledged the need and benefits of using digital

currencies. It passed the order that these currencies will be under the purview of the Securities

Commission, thus making it clear that they are in favor of using these currencies.

However, the countries are adopting digital currencies. However, there are still monitory

policies issued with these currencies, which need to be addressed. In theory, digital currencies are

resilient to financial instability. However, in a real-world scenario, they are more prone to cyber risks,

which can pose a major threat to the financially stable economy of the country. It was also found that

the transactions relating to these currencies are not encrypted make them more susceptible to frauds

and thefts [8].

Keeping in mind these risks and threats, it was also proposed that a global regulative system

could be built to regulate the actions of digital currency. Suppose digital currency is the future of

technological development, which is taking place. A solution could be thought of in case every

country has to adapt to it. All the countries, in participation, create a global system that will regulate

cryptocurrencies worldwide. This system will curb the disadvantages of virtual currencies and help

the national regulatory authorities in the supervision of digital currencies. A unified tax system can

also be created about virtual currencies, which will help to levy tax on these currencies in a unified

manner worldwide.

2.1. The Objective of the Study

The paper's objective is to analyze the working of digital currencies in the related economies

and the potential of use in our economies. It will include studying in detail all the economies, which

have diligently adopted digital currencies and then lining out how in India the future of digital

currencies will shape up and what political and structural reforms will be needed to do so.

3. Research Methodology

To build a premise whether the digital currency has any future in India or not, there is a need

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to understand the conditions in which digital currency was legalized in other countries also to get an

understanding in which countries digital currency was legalized by the government and in which

countries it is not legalized. However, the government has not banned their use for the public.

The Study looks at the procedure implemented by different countries. The government has

legalized digital currency to get this understanding. For this purpose, secondary research is

undertaken. The approach different data sources from where the information on what and how the

policy framework was brought to work [9].

The system of different countries is analyzed, the countries are as follows.

1. United States

2. Japan

3. Malaysia

4. China

5. Others (include countries like Malta, Russia, etc.)

The Study diligently and carefully selected the countries in which the research is performed.

The list includes developing and developed economies, which will help India give a more reliable

solution on how they go forward with the legalization of cryptocurrencies.

4. Results and Analysis

As per the research methodology, the following countries are analyzed on their systems and

implementing the digital currency.

4.1. United States

When we talk about the future of digital currency and its adoption in various countries, it is

quite obvious to look at the world leader, The United States. For centuries, it has been the leader in

various aspects and stands as an example for the future. So, it is not wrong to presume that the

country will also emerge as a leader in providing concrete and sustainable rules and regulations for

cryptocurrency trading. The country recognized the inclination of its investors towards digital

currency and that it will be the future of the digital era the world is entering in. So, the various

regulatory authorities started devising rules and regulations for digital currency.

However, the complex nature of digital currency troubled the house of Wall Street to come

out with any all-around regulatory framework in concern with digital currency. US has a very

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complex legal and tax system, making it tough for the regulatory authorities to define or give any

status to legal currency [10].

For inference, in order to provide some rules for the trading of digital currency, Financial

Crimes Enforcement Network (FinCen) - US Treasury Department in 2013, stated that the

cryptocurrency would be treated as a "Virtual Currency," and hence, come under the purview of the

concerned department. In 2014, Internal Revenue Services proposed that the digital currency should

be treated as a "Property" and should be taxed in that manner. Then in 2015, another proposal came

from US Commodity Futures Trading Commission (CFTC) that digital currency should be classified

as a "Commodity." So, the confusion between all the regulatory bodies made it tough to reach a

common consensus on the status of digital currency and how it should be regulated.

Moreover, to make the situation much more difficult different states made different rules to

deal with the complex nature of cryptocurrencies. So, no nationwide framework was established to

overlook the working and trading of digital currency.

However, last year, the Securities and Exchange Commission (SEC) and Financial Industry

Regulatory Authority (FINRA) joined hands. They issued some regulatory compliance to protect the

investors. Every digital currency operator has to follow these guidelines while trading compulsorily.

Though, the US is the world's largest economy. However, it is still not able to bring depth in

its decisions regarding digital currency. The country's regulatory authorities (FinCen, IRS, CTFC, and

SEC) have different views on how digital currency should be treated. Most of the regulations

regarding digital currency were made in a hurry on the sheer understanding of what they thought was

correct. There was no common ground on the treatment of digital currency.

However, in the future, it is expected that the country to bring some thought and expertise in

the formulation of regulations, and it will decide on how the currency will be treated. Will, there be

one treatment of the currency, or will different agencies pose different guidelines on it.

After coming out with common guidelines, it will be seen that the US will emerge as a crypt

leader also, or will it a back step from regulating it due to various problems hitch are inherent to

digital currencies.

4.2. Japan

Japan has always been described as the root of all the technological advancements and the

country which always finds a way to dive deep into all the innovations. They have always been

described as a country, which introduces technological developments to the world. Be it the invention

of pocket calculators, LED lights, or introducing the world to the era of robotics, bullet trains, or

portable devices, Japan's name always topped the list.

Seeing the country's curiosity in all the developments, there is no amazement that the country

was the first to accept digital currency as the medium of exchange. Japan has the largest user base of

cryptocurrency. It is the second-largest user of cryptocurrency after the United States. Talking about

the statistics, Japan has a population of around 127 million, and 11% of them are active users of

digital currency.

Not only the country is one of the largest users of the currency, however, it is also the country

that took the initiative towards its acceptance and legalization. It also took various steps towards the

idea of its regulation. It finally recognized digital currency as a part of its legal system. It helped its

citizens engage in transactions relating to cryptocurrency legitimately and securely.

Citizens of Japan started using cryptocurrency way before 2012, the year in which

cryptocurrency gained popularity in the rest of the world. A Japanese company named "Mt. Gox"

became the largest cryptocurrency company of the time, and millions of Bitcoins were exchanged.

However, the company faced the biggest hack of all time, and it became the reason for their

insolvency in 2014. The hack came as the devastation in the cryptocurrency market, and millions of

dollars were lost in it. It is assumed that around 850,000 Bitcoins were stolen, which amounted to

\$460 million. To date, it is the biggest hack in the cryptocurrency regime, and it affected many users

of digital currency because they lost their entire funds to the hackers [11].

After the trauma that Japan faced in its cryptocurrency market, it had two choices:

• To ban the currency and make it illegal to use.

• To bring out some rules and regulations for using it and giving protection to its users.

The first option is easier to use and implement. It would have been expected of the Japanese

government to pose restrictions on the use of digital currency or ban it altogether. However, it would

mean that the country would miss the opportunity to capitalize on digital payments and the future

technological mode of payment. Japan decided not to ban the currency but think of the methods that

could bring more protections to the citizens who want to use digital currency. The whole credit

should go to the Japanese regulators. They, instead of banning the currency, decided to formalize the

cryptocurrency investments.

To make the working and settlement of transactions in cryptocurrency easier and safer, a

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committee was set up in 2014, which had to submit its recommendations that what changes must be

brought in the working and regulation of digital currency to make it more user efficient and at the

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same time, bring it under the purview of the legal system. The committee had to submit its recommendations to the Financial Services Agency (FSA) – the regulator of all banks in Japan. The

recommendations of the working committee were as follows:

It suggested that all the companies, which have a business in digital currency, should be

registered under one registration system, which would help the government keep an eye on

the working of such companies. It would also help it to keep a tap on the activities of such

companies. It would also ensure that no unregistered company has the right or power to deal

in cryptocurrencies, thus reducing the risk of fraud and defacement.

It also suggested that money laundering rules and regulations should also apply to

transactions done with digital currency.

It said that a proper system should be developed for the safety of cryptocurrency users.

The Financial Council of FSA reviewed the report. Keeping the committee's

recommendations in mind, the Payment Services Act was amended in April 2017, which changed

how the country managed the digital currency. After the PSA (2017) was formally implemented, it

brought many changes in how things would be handled relating to digital currency transactions. After

all the recommendations were brought into consideration and PSA was implemented, bitcoin was

finally recognized as the country's legal tender in April 2017. Later in September 2017, it was

decided that to manage the legal tender, it was established that 11 companies would be recognized as

legal cryptocurrency exchange operators.

After the implementation, it was made mandatory for all digital currency exchange businesses

to provide security systems to secure their users' private information. This Act also mandated the

companies to be transparent and demand full disclosure of fees charged and other related contact

information to their customers. The companies must also hold a problem resolving system in which

customers can lodge their complaints and get periodical feedback from its customers [12].

It was made compulsory to hold proper accounts of all its transactions and submit the annual

reports to the Financial Services Agency annually to keep a tab on the company's activities, which

would help the government to audit these statements and make sure there is no fraudulent activity in

the working of the company. The FSA also holds power to cancel the license of the digital currency

exchange businesses or suspend its activities if it found that the companies are not adhering to the

Act's guidelines.

In order to avoid money laundering transactions, the Act requires the companies to check the

identities of customers who are indulging in cryptocurrency transactions and need to track records of

all the transactions properly. Companies are also required to notify FSA in case they come across any suspicious transactions. However, it decreased the anonymity of the transactions used to take place in

the digital currency market. However, it sure increased the reliability of such transactions.

Moreover, the income arising out of the digital transactions was brought under the country's regime of the Income Tax Act. It was decided that any profits and gains arising out of such transactions will be treated as "Miscellaneous Income" and taxable. The report by the tax department, which compiled all the rules and regulations regarding the taxation of cryptocurrency, was released online on 1st December 2017. So, the government and regulators diminished the possibility of theft of

cash and possible fraud and money laundering attempts.

However, even after so many rules and regulations, digital currency exchange was not as safe as the government thought it would be. Recently, in 2018 digital currency companies were again hacked, resulting in a loss of around \$600 million. One of the breaches was done in January 2018 with one of the biggest crypto exchange operators "Coincheck Inc." They suffered a loss of around \$570 million because of the hack attack on of its security systems. Another outbreak came in September 2018. Another cryptocurrency exchange "Zaif," claimed that they suffered a loss of around \$60 million due to another hack in security systems. Reports claiming that the cryptocurrency is now being used for speculation purposes rather than settlement purposes also stormed the internet,

which raised a question on the reliability of these currencies worldwide

These recent hacks establish that rules and regulations must be updated regularly to keep this currency out of danger of fraudulent activities. In the light of this, recent updates were made in PSA Act. Stronger and stringent rules were made applicable to the companies so that they can stop these practices. New rules were implemented covering the cryptocurrency-derivative transactions. The list

was made of the acts that will be considered unfair in these types of transactions.

So, the country showed that ensuring 100% safety and security of digital currency is impossible. However, with the help of appropriate rules and regulations, one can easily reduce the chances of such hacks. Thus, they emerged as one of the most progressive countries in the

implementation of digital currency [13].

However, Japan also posed some restrictions on the use of digital currency. The country has banned the use of private digital currency in June 2018. That means it does not allow any company to deal in digital currency without registering with the FSA. This restriction was implemented to protect the users from the cons of digital currency. After the restriction, many private cryptocurrencies such as Monero, Dash, and Reputation, etc., were pulled out of their trading platforms. However, even

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after banning private currencies, the future of digital currency is still bright in Japan. As Japan plays

an important role in the digital currency market, we can expect more countries to follow the trend.

4.3. Malaysia

After dwelling deep into the Study, how Japan legalized its digital currency, the look at some

of the developed economies, their perception regarding digital currency, and what rules and

regulations they brought into the system to use digital currency safer and reliable to use.

Malaysia, which has recently started to rule out some regulations to legalize the use of digital

currency, Bitcoin started gaining popularity in Malaysia in its very early years. However, like any

country, the government and the regulatory authorities were quite apprehensive regarding this new

technology.

In view to issuing a warning to the users of digital currency, on 2nd January 2014, Malaysia's

Central Bank, "Bank Negara Malaysia," gave out a statement that the country and its financial

institution, including the central bank, does not recognize any digital currency as a legal tender of the

country. It also said that the country's central bank does not control the operations and working of

such type of currency. However, the government and the central bank did not impose any ban on any

digital currency. They said that if people want to deal with digital currency, they have to do it at risk.

The bank will not be responsible and answerable for any loss in any of the transactions.

However, seeing the popularity of digital currency and its increasing trend among the users,

the government decided that it should impose some rules and regulations on it given protecting its

citizens. On 14th December 2017, a report was released by the bank containing the guidelines and the

proposed policy, which stated that the digital currency companies should be obligated to report to the

institutions which come under "Anti-Money Laundering," Anti-Terrorism Financing" and "Proceeds

of Unlawful Activities" (AMLA).

Under AMLA, it was specified to the digital exchanges that they will have to report any

transaction that they are indulging in, and the reporting should contain the following information:

1. The report should contain the identity and the addresses of both parties

2. It should state the accounts which will be affected by the concerned transaction

3. It should also specify the type of the transaction

4. They should give full details of the date, time, and amount of the transaction

The policy decisions came into effect on 27th February 2018, which was the step to put some

regularisation on the digital currency transactions and put a stop to any fraudulent activity if going on

digital currency exchanges. However, it was not illegal to deal in digital currencies. Some rules were

imposed on the working of digital exchange operators. However, they were still not recognized as

"Securities" by the Securities Commission of Malaysia. It means all the exchange operators were not

required to register themselves under the country's Securities Commission, which means they can

work independently following some guidelines. Apart from those regulations, there was no check on

these exchange operators dealing with the currency.

However, seeing the growing popularity of the currency, the government and the regulatory

authorities thought it would be useful for the country if they decide to legalize and start regulating

digital currency as securities under the cap of the Securities Commission. So, on 31st January 2019, it

was announced that the Securities Commission (SC), will now be making regulations for the digital

currencies and that all the exchange operators in the country have to register under SC till 31st March

2019.

After the registration, all the digital operators will have to follow all the guidelines issued by

the SC apart from the guidelines they have been already following under the AMLA Act. The new

guidelines required all the top executives of the digital operators to have a clear criminal background.

Along with this, it was also made mandatory for these executives to have a trading experience. It was

also established that all these operators must have reliable security systems to protect the funds of

their investors. It was also made clear that not all the operators will get the operating license from the

SC. They will have to prove that they will contribute to digital technology and the country's economy

to get the license from the board.

The guidelines reported by the SC, also stated that the prices of the digital currency and the

methodology, which is used in establishing those prices, must be made transparent to the users. The

authorities also stated that trading in these currencies still poses a grave threat to the investors.

However, instead of increasing the interest of investors towards cryptocurrencies, safeguards will try

to put in place, as deemed appropriate by the SC to protect the rights and interests of the investors.

There were 56 exchange operators, which had the reporting obligation to the Malaysian

Central Bank under the AMLA act. However, not all these exchanges were granted licenses by the

SC. After its research and its screening process, SC granted a license to 3 digital exchange operators

named "Luno," "Synergy," and "Tokenize." These exchanges now have new rules and regulations,

which they have to comply with, apart from reporting to the Central Bank.

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However, it is not compulsory for the people of Malaysia that they can only trade in digital

currencies on the recognized exchanges. If they want, they can enter into a deal with individual

sellers operating in the country. There is no ban on them by the government. However, while using

such platforms, one should be very careful because the country does not recognize these sellers.

There is a high probability that these platforms are indulged in fraudulent activities. So, the

government, central bank, or the SC does not provide any security to the investor if he wishes to trade

with such platforms.

Thus, it can be established that being a developing country, Malaysia has shown some

progressive thinking in the legalization and regulation of digital currencies rather than banning them.

As time passes, we can expect some more innovative methods to be implemented, making trading in

digital currencies safer and easier.

**4.4. China** 

China is always seen as the next most powerful country after the US. It has always

implemented the most stringent rules in technology and development to protect its economy. So,

when the world was slowly becoming more and more inclined towards it, it was natural for a country

like China to think about the harms and misuse of such currency on its legal and financial system.

However, China did not pass any regulation regarding the use of digital currencies. It neither

legalized the currencies nor banned them. The effect of this step was huge in terms of market

capitalization, which the Chinese financial market saw in terms of digital currency. Soon, it became

one of the biggest trading platforms in digital currency. It had around 80,000 miners of Bitcoins

before 2013. In a circular issued by the government in 2013, it defined cryptocurrency as the virtual

currency. In the circular, it warned the investors about the harms and financial risks inherent to such

currencies. However, it allowed them to participate in the crypto market freely.

When China was on the path of becoming the world's leader in the trading of crypto, the

government decided to stop it. On 4th September 2017, the Chinese government and regulators

announced that there are so many financial risks attached to digital currency. There are no certain

rules and regulations to protect the investors, so trading in digital currency is illegal. The government

announced that trading in such a currency type would be deemed a fraudulent and illegal activity for

fundraising. The government also announced that any exchange through any platform could not buy

or sell cryptocurrencies. If caught doing so, the government can suspend its activity and the license,

thus, posing a complete ban on digital currency.

After this announcement, the digital currency got a big blow, which caused one of the biggest

crackdowns in the crypto market. 40% of the digital currency transactions were coming from China

until that date, after the ban came to a halt, which has caused an immediate slump, which was hard to

recover from, in the market. One by one, all the major operators were shut down, and their activities

were suspended following the government orders. The effect of such a shutdown was so powerful

that the percentage of global trading of Bitcoin in the Chinese Yuan dropped from 90% to 1%. When

asked why such a drastic step, government officials said that the government believes in protecting

their investor's rights; for this purpose, they feel China needs to have stringent rules regarding

cryptocurrency, and it is mining.

Though, after the complete shutdown of crypto operations, it looked like the future of digital

currency has come to an end. The Chinese environment is no longer favorable to blockchain

technology and digital currency, but, in 2019 the government's new announcement changed

everyone's view. The government announced that the People's Bank of China (PBOC) - China's

central bank, has been thinking of issuing its digital currency. This currency will be similar to any

other digital currency. However, it will be backed by all rules and regulations as deemed appropriate

by the central bank. This currency will have the same legal status as that of the Chinese Yuan.

If done so, China will become the first country to issue its digital currency and be a true leader

in the blockchain era. However, this declaration is still in the middle of much confusion, since China

is playing a double role, where on the one hand, thinking its role as the digital currency superpower

and on the other hand acting as an opponent for any type of digital currency.

However, there have been some goals given to think surely about by other countries, by

China. If China successfully launches its digital currency, it will be interesting to see other digital

superpowers such as the US and Japan. It will also stand as an example of other developing

economies struggling to deal with the rules for crypto. It will be a new era in the digital currency

market.

**4.5. Others** 

We discussed three superpowers and their stance on the idea of digital currency. We also

talked about the developing economy, which is emerging as a new power in this market. However,

apart from all these, many other economies have gladly accepted the idea of accepting digital

currency as a virtual payment method and are making rules and regulations in this regard.

One such country is Thailand. In 2018, after seeing the growing popularity of digital currency, Thailand came out with a detailed framework of rules and regulations for the working of digital currency. This framework was released by the Thailand Security and Exchange Commission. The exchange gave licenses to 10 exchange platforms and posed some mandatory rules on them, which had to be followed. The exchange also broke down the operators' licensing fees and set up the minimum capitalization base for the investors. For a developing economy like Thailand, these steps

show their progressive thinking regarding cryptocurrency.

Another country, which has shown very progressive thinking regarding cryptocurrency, is Australia. In 2017, the Government of Australia declared that trading in digital currency is legal and stated that Bitcoin would be treated as "Property." Thus, all the regulations of the regulatory framework, which apply to "Property," will apply to Digital Currency. In 2018, more regulations were brought into place to make the working of cryptocurrency more favorable. It was established that the crypto exchanges would have to maintain proper records of all their transactions, comply with the reporting requirements, and carry out a verification process for all its users. In the coming years, we can expect the country to implement more rules and regulations and give full support to digital currency.

Another important country of the world that has shown its acceptance of digital currency is UK. Until 2013, the country was not considered a good place if one wants to trade in digital currency as VAT was levied on these transactions, making trading expensive and cumbersome for the investors. However, the country came up with new rules and regulations. Thus, the future of digital currency looks promising in the country. In 2014, UK Digital Currency Association was formed, which looked after all digital currency working. This initiative of the government made it easy for investors to deal in digital currency.

Moreover, the country is also researching its implications if the Central Bank comes up with its digital currency. Though there are no positive outcomes of the research to date, the planning part shows that the country is looking forward to creating a future in digital currency.

Another major country that legalized the use of digital currency is Germany. In 2018, the German Federal Financial Supervisory Authority recognized virtual currencies as financial instruments. However, if one wants to trade in these currencies' advance approval and authorization from BaFin is required.

Apart from these countries, many others like Russia, Canada, Malta, France, etc., are examples of countries that have recognized the importance of digital currency and the future of blockchain technology. Thus, they have also made rules regarding the trading of these currencies.

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## 5. Digital Currency in Indian Context – A Way Forward

After studying and analyzing in detail, we can be sure that the world is rapidly moving towards technological advancements and innovations. One such advancement is the technology of blockchain and digital payments. The world's inclination towards these digital methods is increasing, resulting in more and more people supporting digital currencies. It is agreed that the future cannot be predicted. However, with all the Study done in this paper, we can conclude that the odds favor digital currencies.

Though, clouds of doubts about the reliability of digital currencies and debates about whether it is harmful in the long run or not have always surrounded the future of virtual currency. However still, these currencies have attracted not only the interest of the investors but also of the regulatory authorities of the country as well as the media. However, because of these debates and doubts in the mind of the investors, prices and market capitalization of these currencies show major fluctuations, which make it more difficult to forecast their future.

The last decade has been very encouraging globally in the digital payment space due to inspiring innovations in independent cryptocurrencies to virtual money triggered way back in 2008. In the Indian context, which traditional payments have predominantly driven, digital currency faces many challenges. With a strong legal framework, India empowers RBI to supervise and regulate the payments systems, which are safe and secure. The payment systems have been very efficient, fast, and affordable. For the digital currency to be implemented in India, strong frameworks which tests and authenticates the parameters affecting various stakeholders need to be developed. The following table summarizes some of the important parameters for the traditional and digital currency concerning Traditional Payment and Digital currency specifically for India [14].

**Table 1:** Traditional Payment and Digital Currency

Parameter	Traditional Payment Systems	Digital Currency
Issuing Agency	Reserve Bank of India	Private Agencies
Backing Agency	Reserve Bank of India	
Legal medium of exchange	Yes	NO
Security and Maintenance	High	Low/ NIL
Traceability	Low	High
Payments and Settlement Mechanism	Restricted Acceptance	Probable Universal Acceptance
Financial Stability	Stable	Unstable
Privacy	High	High
Scalability	Low	High

With these parameters in focus, a unique policy and legal regulations to be developed by RBI, taking into account incentives to be provided to various stakeholders inclusive of private intermediaries responsible for providing value-added services, are shown in Table 1. Being one of the

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largest bank networks in the world and serving more than 80% of the population, India's central bank RBI has to assess and approve a vigilant approach for digital currency thoroughly. Implementation of the new currency would have wide-scale implications on financial inclusion and employment.

Currently, digital or cryptocurrencies have been seen with suspicion by governments and conventional finance managers in India. Global Pandemic coronavirus has given more enhanced pace due to the critical race to the governments as non-implementation may harm its economic and political interests. The post Lockdown scenario has also led to a debate proposing the use of the Digital Rupee to solve problems such as counterfeiting banknotes, money laundering, and tax evasion through blockchain technology offering secure monitoring and reporting. If introduced, a national digital currency would help trace the illegal activities, leading to eradicating difficulties that infect our economic reality. With a strong belief in mind, confident but cautious steps need to be taken by the Reserve Bank of India. Proper care needs to be taken for implementation with advancements in blockchain technology-based solutions offering advantages of tracking various illegal economic activities hurting the Indian economy. Ad is organized implementation of a digital currency would only lead to severe monetary concerns in terms of devaluation of national currency, rise in inflation, or upset foreign exchange reserves.

Digital currency based on blockchain-based architecture offers authenticity. It helps in the verification of transactions, ensures non-replicability of the counterfeit rupee by adversaries. The blockchain architecture implemented by RBI working on a centralized but distributed wherein the transactions would be encrypted cryptographically and verified by a network of nodes participating as validators. This mechanism results in a chain of transactions and safeguards transactions from malicious content that will not penetrate the network. The decentralized network helps to secure as because a single point of failure does not exist.

Numerous Opportunities for digital currencies in the Indian context can be listed. However, the major challenge being how RBI will proceed with caution and implementation. Digital currency would be a real blessing for the government if concrete research-based. The pilot program-tested approach is adapted. Surely the advantages of a national digital currency simply overshadow the threats associated with it. A right mix of research-based product development, advanced blockchain technology-based solutions, decentralization, and centralization architecture with a strong foundation of principles of economics would lead the digital currency journey. The proven skills in IT and blockchain would serve as a positive sign for India in the worldwide arena. A time-bound vigilant approach of education, collaboration, research with vigilant regulatory mechanisms can solve the concerns regarding digital currencies. Realization of the Indian digital economy dream would become

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a success when the Reserve bank of India concretes the concept of digital currencies with due

diligence on the aspects of technology, economics, and the societal impact [15].

6. Conclusion

The paper in detail discusses the stand of different countries over the regulation and

acceptance of digital currencies as part of their legal and financial system. These findings played a

big role in helping us to know where the future of digital currency in the minds of regulatory

authorities of the country. In this paper, we discussed in detail the methods and policy reforms, which

were adopted in some of the countries so that they can make trading of these currencies safer and

more reliable for the investors and also stop the exchanges to indulge in fraudulent practices like

money laundering, terrorism, etc. We found out that different countries are handling the trading of

digital currencies in a good manner and have innovative methods of policy reforms. Some of the

countries are even thinking of launching their digital currency. The paper also discussed the stand of

India in making digital currencies a legal tender. Though digital currencies were gaining popularity,

they were still banned by the RBI, on the premise that since they are owned or controlled by any

regulatory body, it is not safe to invest in them. However, suppose India does not fall back in the race

of technological innovation. In that case, they should also think about bringing some policy reforms

to regulate them efficiently. RBI can make some rules and regulations for the trading of these

currencies as they feel appropriate. They can start giving the licenses to the digital exchange

operators after doing extensive background on these exchanges. Even after that, they can create some

reporting obligations for the exchanges to always keep in the loop, which will help India as a country

and bring India as a country that supports all the digital transformations.

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