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Cryptocurrency: A New Millennium Currency (Problem and Prospects in India)

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Abstract: *Crypto currency is the latest and the most significant development in the financial industry. It has brought a revolution in the Indian financial markets and created a challenge for the banking industry by presenting it as investment opportunity. Bit coin, the first and the most popular crypto currency launched in the year 2009. It has given the other option to the long standing and unchanged financial payment system which is existing for many decades. It is a decentralized digital currency that can be sent from user to user on the peer-to-peer. In the bitcoin network it can be sent without the need for intermediaries, where transactions are done through a public ledger called block chain, where user data is stored anonymously. It has created a robust digital trade markets where there is free flowing trading system without fees. They are not going to replace the traditional system of payments but they have changed the way of making payments through internet and interaction of global markets. In addition to this has given an investment option too. In the light of above facts current research has been conducted to know the status of cryptocurrency in India, various types of crypto currencies existing in India its problems and prospects. It was found that there is no legal regulation to control their operation only current announcement in the budget gains arising from the trading of these currencies has brought under taxation. But till date RBI has not given any recognition to it and the user /investor is responsible for their risk.*

Keywords: *Cryptocurrency, Bitcoin, Encrypted, Currency, Bitpay, Blockchain, Exchange Rates*

I. INTRODUCTION

Looking a few decades back, no one has presumed the role of the internet, the way it is controlling the world. It has brought robust changes in the every sphere of life whether it is way of doing business or accessing information etc. cryptocurrency is one of most significant development in the financial sector which has brought revolutionary changes in the form of virtual money , digital trading ,virtual exchanges etc. with the block chain technology whereby online ledger of all demand and supply of cryptocurrencies are maintained .

Bit coin, the first and the most popular crypto currency launched in the year 2009 by a computer programmer or group of programmers under the pseudonym Satoshi Nakamoto, whose actual identity has never been verified. Since its inception many other types of crypto currencies are traded in markets. But Bitcoin is considered to be the world's best known cryptocurrency and is the largest in the world according to market capitalization. Cryptocurrency or digital currency is an alternative form of payment which exists virtually and uses cryptography to secure payment and transactions. They do not have any central or regulatory authority like fiat currencies, in spite they use a decentralized peer to peer (P2P) network to keep record transactions and issue new coins in the market.

Cryptocurrencies are based on a distributed public ledger which is known as blockchain. A blockchain maintains the record of all the transactions that have been done by the currency holders. These currencies are further stored in digital wallets which consist of private and public keys. It has become medium of exchange, such as the rupee or the US dollar, but is digital in format that uses encryption techniques to control the exchange of money. Cryptocurrency received its name because it uses encryption algorithms to verify transactions.

The cryptocurrency industry is growing at very fast speed today there are more than 20000 currencies available in the market offering varying investment opportunities. It works on the theory of solving encryption algorithms to create unique hashes that are finite in number. Combined with a well connected network of computers by verifying transactions, users can exchange hashes as if they are exchanging physical currency. It has grown in size and popularity to facilitate the financial activities such as trading in India and as well as around the world. According to the United Nations Conference on Trade and Development Report 2021, 7.3% of Indians owned cryptocurrency in 2021. Back Crypto market cap rises above \$1 trillion first time on 14th January 2023 (livemint.com) the total market capitalization of the cryptocurrency industry exceeded \$1 trillion, according to data from CoinGecko.

II. REGULATION POLICY OF CRYPTOCURRENCY IN WORLD

A. *United States of America*

There is no such regulatory framework for the cryptocurrency in U.S.A. Though there are large number of investors and blockchain firms. The Securities and Exchange Commission (SEC) typically look after cryptocurrency as a security, while the Commodity Futures Trading Commission (CFTC) view Bitcoin as commodity, and the Treasury calls it a currency. Crypto exchanges in USA operate under Bank Secrecy Act (BSA) and required to register with Financial Crimes Enforcement Network (FinCEN). They are also required to comply with anti-money laundering (AML) and combating the financing of terrorism (CFT) obligations. The Internal Revenue Service (IRS) classifies cryptocurrencies as property for federal income tax purposes.

B. *Canada*

Canada has a proactive stance towards cryptocurrencies. It became first country to approve Bitcoin exchange trading fund (ETF) in February 2021. Additionally, the Canadian Securities Administrators (CSA) and the Investment Industry Regulatory Organization of Canada (IIROC) have clarified that crypto trading platforms and dealers in the country must register with provincial regulators. Furthermore, Canada classifies crypto investment firms as money service businesses (MSBs) and requires that they register with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC). From taxation point Canada treats cryptocurrency similar to other commodities.

C. *United Kingdom*

United Kingdom has permitted cryptocurrency as property but not legal tender. Cryptocurrency exchanges must register with the UK Financial Conduct Authority (FCA) and they are restricted from offering crypto derivatives trading. Regulatory body has made cryptocurrency specific rules relating to KYC as well as with anti-money laundering (AML) and combating the financing of terrorism (CFT) obligations. Investors still has to pay capital gains tax on crypto trading profits more broadly, taxability depends on the crypto activities undertaken and who engages in the transaction.

D. *Japan*

Japan classify cryptocurrency as a legal property under the payment services act (PSA). Crypto exchanges in country are required to register with Financial Services Agency (FSA) and comply with AML and CFT obligations. Japan consider trading gains generated from cryptocurrency as "miscellaneous income" and that are taxed accordingly.

E. *Australia*

In Australia cryptocurrency is legal property which makes them liable for capital gains tax. Exchanges are free to operate in the country, provided that they register with the Australian Transaction Reports and Analysis Centre (AUSTRAC) and meet specific AML/CTF obligations. These exchanges can offer private coins too and that are traded afterwards.

India

In India Crypto currencies always have the 'grey area' status, there is no regulation or law so far. Even after investments being made at the speed of light, there seems to be no authoritative clarity on the same. Current Cryptocurrency Regime in India: Currently, there is no legislation that governs, regulates or prohibits any kind of dealing in cryptocurrencies in India. The first press release was issued on December 24, 2013 ("2013 Press Release") in which RBI had warned the users, holders and traders of virtual currencies about their exposure to potential financial, legal, security, operation and consumer protection related risks. It has also stated that no regulatory approvals, registrations or authorizations have been taken by any entity for dealing in virtual currencies.

Other measures in this regard is given below:

REGULATION IN INDIA

- 1) In 2017, the Reserve Bank of India (RBI) issued a press release where by warning to the traders and investors that virtual currencies/cryptocurrencies are not a legal tender in India. However, no ban on virtual currencies took place.
- 2) In 2019, RBI issued that trading, mining, holding or transferring/use of cryptocurrencies is subject to punishment in India with a financial penalty or/and imprisonment up to 10 years. However it has also declared that it may launch digital rupee as a legal tender in India in future.
- 3) In 2020, the Supreme Court of India lifted the ban on cryptocurrencies imposed by RBI.

- 4) In 2022, the Government of India clearly mentioned in the Union budget 2022-23 that the transfer of any virtual currency/cryptocurrency will be subject to 30% tax deduction, including Gifts in the form of virtual cryptocurrencies will be taxed in the hands of the receiver.
- 5) In July 2022, The Reserve Bank of India (RBI) recommended a ban on cryptocurrencies citing ‘destabilising effects’ for the country’s monetary and fiscal health

III. REVIEW OF LITERATURE

- 1) Brenig & Müller (2015) conducted a study on economic analysis of “money laundering” with cryptocurrencies which are decentralised and convertible digital currencies depending on cryptography. According to them, the wider popularity of cryptocurrencies is seeking the attention of scholars and practitioners, especially due to increasing concerns on money laundering incidents. It also helps in analysing transactional and contextual factors about the impact on using it for money laundering by cyber criminals.
- 2) Wonglimpiyarat, 2016 has conducted a study to find whether a society can go cashless and use virtual money. It was highlighted that there are barriers of lawless tender where Bitcoin requires the government’s legislation to boost the permissibility of this new currency. It may transform the future of banking industry in developing countries but it is very difficult to substitute a cash-based society.
- 3) Huckle et al (2017) carried a study on application to transfer fiat currency using blockchain technology into Ether, a cryptocurrency. It will help the user to exchange the foreign currency left after travelling into their local currency. It is also stated that Demonetization scheme is one of the best use for converting fiat currency into any cryptocurrency. In the end, it was concluded that this application is technically feasible but the Indian government will not consider it because of financial sovereignty issues.
- 4) Chainalysis (2021), has conducted the study on the adoption of cryptocurrencies world wide on the basis of research and data analysis it is reported that India stands at the second spot in adoption of cryptocurrency.
- 5) Mallick & Mallick (2021) conducted a study on the relation between the official “Indian Currencies foreign exchange rates or ICX (GBP, USD, YEN, EURO, etc.)” with cryptocurrencies like “Binance Coin”, “Litecoin”, Ethereum and Bitcoin with daily analysis during December 17, 2019 to June, 17, 2021. It was found out that “significant positive relationship” between “Binance Coin and Ethereum” with Bitcoin, “Binance Coin and Bitcoin” with Ethereum, “Binance Coin” with Litecoin, and Litecoin with “Binance Coin”. And a negative relation between Litecoin and USD. Further it was added that there is also very less impact on crypto markets from foreign exchange markets in India.

IV. RESEARCH METHODOLOGY

The study is based on secondary data collected from high impact journals, research papers, news articles, and other trusted platforms, as well as from government press releases and data collected by autonomous bodies. The main aim behind of this study is to present current scenario in India about virtual currencies and statistics about Indian economy. To achieve these following objectives have been framed.

V. RESEARCH OBJECTIVES

- 1) To evaluate the current status of cryptocurrency in India.
- 2) To know the available infrastructure to deal in cryptocurrency in India.
- 3) To find out the different types of cryptocurrencies are being traded in India.

VI. DATA ANALYSIS AND INTERPRETATION

- 1) Status of Cryptocurrency in India (2022)

Sr no.	Particular	Data
1.	Percentage of owners of cryptocurrency	97.50million 7.10% of total population
2.	Indian rank in ownership of crypto	II Followed by vietnam
	Total no. of startups	15 cryptocurrency apps/exchanges

3.	Legal status	Legal
4.	Regulatory authority	Not yet started
5.	Taxation	30% tax on crypto income plus 1% on transaction
6.	Demographics of investors	59% male 66% below the 35 years of age (as per Wazir X exchange)

*Source: Finder's Cryptocurrency Adoption Index

2) *Interference:* It can be seen from the above table statistics cryptocurrency trading is rapidly growing. It is very important to note here that new millennial population is very excited to invest in it though there is warnings and repudiate statements by government. It shows that in coming future this trend will go further to new higher levels. In India, the Bitcoin fever is catching up high with over 2,500 users trading Bitcoin daily and the trading volume rising close to \$20 Bn a year and cryptocurrency exchanges are mushrooming with each passing day.

VII. TOP TRADING CRYPTOCURRENCIES IN INDIA FOR 2023

Bitcoin was the first currency invented in 2009 and started trading in 2009. Since then there are large number of cryptocurrencies have been invented in world wide as well in India too. As of November 2022, there are 21,844 cryptocurrencies in existence. However, out of them only around 9,314 active cryptocurrencies. There are upwards of 300 million cryptocurrency users across the globe. And approximately 18,000 businesses now accept a form of crypto as payment. (Sources: [CoinMarketCap](https://www.coinmarketcap.com), [investing.com](https://www.investing.com)). In India there are more than 200 currencies are being traded on different platforms . Here we give the top 10 cryptocurrencies to trade in 2023 in India on the basis of their market capitalization in 2022.

Top trading cryptocurrencies in India for 2023 :

Sr.no	Name of cryptocurrency	Ticker symbol	Started	Market capitalization (2022)
1.	Bitcoin.	BTC	2009	\$367,269,160,695
2	Ethereum.	ETH.	2015	\$196,869,583,154
3.	Tether	USDT.	2014	\$67,548,148,441
4.	Cardano.	ADA.	2017	\$16,073,220,460
5.	Dogecoin	DOGE.	2013	\$8,031,886,340
6.	Polygon	MATIC	2017	\$7,295,052,809
7.	Shiba inu	SHIB-USD	2020	\$6,703,307,819
8	Tron	TRX.	2017	\$5,606,351,293
9.	Uniswap	UNI	2018	\$4,512,329,242
10.	wazirX	WRX	2018	\$69,007,852

Source: <https://coinmarketcap.com/>

We can see from the above table that bitcoin has maintained the first place since its inception though newer currencies are coming in markets for trading and they are getting positive response out of above the latest entrants in cryptoworld are dogecoin and shiba inu and out of them dogecoin is selling cheapest in India which is Rs.4.78. India, specifically, has seen a major rise in crypto investors.

VIII. TOP 10 APPS/ EXCHANGES FOR CRYPTOCURRENCY INDIA

The increase in popularity of cryptocurrencies has given a significant rise in the number of cryptocurrency exchanges in India. To invest and trade in digital currencies, more and more Indians have started resorting to the cryptocurrency exchanges. There are 15 cryptocurrency exchanges in India; and therefore top the best exchange option, providing various features along with low fees structure are given below.

Sr. no.	Name	Founder & year	Key features	Fees Maker/taker	No. of currencies dealing	Minimum investment	ranking
1.	CoinDCX:	2018	Transparent trading platform User can make deposits via NEFT, RTGS and IMPS. Max. security measures	0.2%/0.2%	340+	100	4.5
2.	CoinSwitch	2017	Zero holding fees Best for beginners Wide customer service with minimal price	0.1%/0.1%	100+	100	4.0
3.	. WazirX	2017.	Best for novice and intermediate crypto traders	0.2%/0.2%	100+	100	4.0
4.	Binance	2017	Instant account verification Meager loading fees 95% cold storage	0.1%0.1%	600+	100	4.9
5.	Delta Exchange	2018	Low fees Strong customer support Multiple trade tools	0.2%/0.5%	150+	1\$	4.0
6.	Bitbns	2017	Designed for beginners Instant deposits 95% cold storage policy	0.25%/0.25%	340+	100	3.5
7.	Zebpay	2015	Guaranteed minimum returns on lending 98% of coin storage in cold wallets	0.15%/0.25%	100+	100	3.5
8.	Unocoin	2013	Charges exorbitant lowest fees Oldest crypto exchange in India	Nil/0.3%	80+	1000	3.5
9.	BuyUcoin	2016	Easy registration Tools for newbies Advanced charting tools	0.24%/0.24%	130+	20	3.5
10.	Giotuss	2017	Good for beginners as well for advanced investors No withdrawal charges	0.2%/nil	120+	100	3.5

IX. CHALLENGES

Anything which comes with enormous benefits have some challenges too. In above discussion we have found that cryptocurrencies are expanding at a speed of light so controlling them is the biggest challenge when there is no regulatory authority. The Risk of losing real money and fixing the responsibility is a hurricane task. Transactions of virtual money are irreversible in nature so once money is gone its gone due to irreversible in nature security is also a challenge. There is no monitoring authority no format for auditing of transaction trail so it can be used for illicit activities such as financial terrorism.

This technique is totally technologically driven everything is virtual so major concern for security of money. Moreover it required expertise knowledge to deal in the cryptocurrencies anybody without having complete knowledge can't jump in this to make short term gains.

X. FUTURE

Despite the ban and issuance of warnings by the government of India the investment in cryptocurrency is increasing. Many new startups are coming in this area offering an investment platform to make money as well as giving new employment opportunities. Start-ups like WazirX are even introducing newer concepts like Non-Fungible Tokens (NFTs). Moreover, the introduction of cryptocurrency has brought an unprecedented interest of people as young as 18 years of age to invest and grow their portfolios. Here government can make it legal giving more freedom as well security to investors and impose tax and earn a good source of revenue. Though government has imposed the tax but has not setup any regulatory authority. So an ordinary man hesitates to invest in these types of currencies. Moreover we are moving towards automation, virtual worlds so this can be a boon in that area and will bring more money in circulation in white channels.

XI. CONCLUSION AND SUGGESTIONS

Crypto-currency is such an invention which has become a global phenomenon. However, cryptocurrency is a modern technology which needs to look forward for. Even though there has been no regulatory system from the Indian government, the number of investors in cryptocurrency is increasing swiftly over the last few years. Indian government should take responsible steps now to regulate such currency as its user in India is rapidly growing. Cryptocurrency has great potential to replace the traditional monetary system. In order to adopt this Cryptocurrency it must first evolve and accept a secure network of currency exchange. This will help India to reach to the next platform of E-commerce. It can serve as a great tool from the financial point of view. Giving legal recognition to cryptocurrency can take the Indians and India as a nation at a platform, which promises progressive growth and looked as ray of hope to make digitally strong economy.

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