

Cryptocurrency: Future Currency in the Offing

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Abstract:

Crypto-currency is an umbrella term for a range of digital currency, which rely on cryptographic algorithms to provide users with secure medium of exchange. Wealth creation and transactions are controlled by mathematical algorithms (mining) implemented within the underlying protocol. Most of the cryptocurrencies are based on distribution in the online architecture. Its form exists only in digital structure and can be transferred between digital addresses. Cryptocurrency may revolutionize digital trade markets by creating a free-flowing trading system with fees. A SWOT analysis of cryptocurrency is presented, which illuminates some of the recent events.

Key words: cryptocurrency, digital structure, algorithms.

RESEARCH METHODOLOGY

The methodology includes both present & historical data related to cryptocurrency like publication research, interviews, surveys and other research techniques. It cites both present and historical information.

Research Design:

Descriptive research design is used in this research study.

Secondary Data

Data sources for acquiring secondary data for this study include reports, Journals, previously published scholarly papers and articles. A list of references has been appended in order to provide the insights into the research study.

Time Frame

Time frame of the origin of cryptocurrency has been recorded as 1 March 2022. This will reflect upon existence and growth in use of Cryptocurrency. It will expectedly underline the key growth, if any.

OBJECTIVES OF THE STUDY

1. To understand the concept of cryptocurrency and its functioning in regular trading.
2. To know the legality and trading of digital currency in India.

Introduction

In the era of information and communication technologies has created enormous opportunities in the sphere of modern trading. One of the fields that seemingly draws greater advantage from this techno-economic offspring is the business sector. A large and growing number of online users have created new business phenomena on this virtual economic giant.

Cryptocurrency is an umbrella term. It can be defined as any medium of exchange in the virtual monetary empire, which can be used in multifaceted financial transactions irrespective of their norm of transaction whether virtual or real. It explores communication with diverse application and networking grooves such as online social networks, online social games, virtual worlds and peer to peer networking groups with its intangible but valuable presence electronically.

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It works as a Block Chain System. A block chain is a type of distributed ledger. It allows record keeping across multiple computer, known as “nodes”. Nodes verify, approve, and store data within the ledger. A block chain organizes information added to the ledger into blocks or group of data. Each block can only hold a certain amount of information, so new blocks are added to the ledger at a continuous basis, forming a chain. Each block has its own unique identifier, a cryptographic “hash”. The hash not only protects the information within the block from anyone without the required code, but also protects the block’s place along the chain by identifying the block that came before it. The cryptographic hash is a set of number and letters that can be up to 64 digits long. Once information is added to the block chain and encrypted with a hash it is permanent and unchangeable. Each node has its own record of the full timeline of data along the block chain. If someone tampered with or hacked into one computer and manipulated the data for their own gain, it would not alter the information stored by other nodes.

Bitcoin is cryptocurrency available in the public domain has a block chain, which means anyone who owns Bitcoin can view the transaction record. While it can be difficult to trace the identity behind an account, however, the record is capable of showing the accounts on transaction on the block chain. Public block chain also allows any user with the required computer power to participate in approving and recording transactions onto the block chain as a node.

Table 1: TOP CRYPTOCURRENCY OF 2022 (1 March 2022)

No.	Name	Market Price(at present)	Market Price(when launched)	Marketcap	Growth %from 2009 to 2022
1	Bitcoin	\$44,000	\$500(2016)	Over \$846 billion	7,800%.
2	Ethereum	\$3,000	\$11(2016)	Over \$361 billion	27,000%.
3	Binance coin	\$413	\$0.10(2017)	Over \$68billion	410,000%
4	Cardano	\$0.99	\$0.02(2017)	Over \$33billion	4,850%.
5	Solana	\$0.77	\$0.77(2020)	Over\$33billion	13000%

Sources: - Top 5 Cryptocurrencies In world

Kat Tretina and John Schmidt Editorial Note: Forbes Advisor

The Indian Scenario

The estimated population of India is at around 1,40,791,245 as of February 2022. According to IMF, India has the fastest-growing emerging economy. India is accepting technological advancement more rapidly. Bitcoin and other cryptocurrencies have been getting steered in India for a long time. Presently, more or less 20 million people in the country are the part of the Indian investment reservoir. In view of making the kind of trading an accountable one and consequently, introducing a digital currency, Government of India, in its 2022-23 budget, has imposed 30% tax on the income brought out from cryptocurrency.

History of Cryptocurrency in India:

2008: Introduction of concept of cryptocurrency in the world.

2010: First commercial transaction takes place in form of Bitcoin.

2013: Unocoin cryptocurrency exchange first launches Bitcoin accessibility for the Indian market. In the same year, RBI issued advisory and warning the public against the buy or sell of digital currency and added their prices as speculation matters.

2014-16: The prices of cryptocurrency are becoming larger, and many other exchanges came up in India.

2017: The Finance Ministry and RBI cautioning people against cryptocurrency and a committee of Finance Ministry, RBI and SEBI formed for making regulation over cryptocurrency assets.

2018: Binance became the largest cryptocurrency exchange in India. Government- issued circular of banning cryptocurrency in India. Exchanges approached the Supreme Court for removing the ban, they also started a campaign around 971 days.

2020: Supreme Court overturned the ban in India and due to COVID- 19 the prices of Bitcoin started rising from \$3,700 to \$30,000 just in one year. 2021: The price of cryptocurrencies doubled this year; Bitcoin price came up to \$64,000.

In budget 2022-23 government had announced a 30% tax on income from cryptocurrency. But no clarity is on the ban on the regularization of cryptocurrency. It is also announced that RBI will launch its digital currency by the end of this financial year.

According to analysis in India cryptocurrency market raised around 640 percent from July 2020 to June 2021. During this period 42 percent of transactions of South Asia came from the Indian cryptocurrency market which was valued at more than \$10 million. This indicated a more developed Indian market.

SWOT ANALYSIS OF CRYPTOCURRENCY IN INDIA

<p>STRENGTHS</p> <ul style="list-style-type: none"> ● Protection from inflation ● Self-governed and managed ● Decentralized ● Cost-effective mode of transaction ● Currency exchanges finish smoothly ● Secure and private Easy transfer of funds 	<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> ● Globalized market redistribution of money ● Can reduce systematic risk ● Possibility of entry of new business models
<p>WEAKNESS</p> <ul style="list-style-type: none"> ● Illegal transactions ● Risk of Data Loss ● Power lies in few hands ● Buying NFTs with other tokens ● No refund or cancellation ● High consumption of Energy ● Vulnerable to hacks 	<p>THREATS</p> <ul style="list-style-type: none"> ● Speculative motive/ blackmarket ● Low adoption due to lack of knowledge ● Legal framework (Banned indifferent countries) ● Competitive technological environment. ● The collapsing concern of cryptocurrency ● KYC (Threats associated with unknown identity)

Strengths and opportunities of Cryptocurrency:

1. Protection from inflation:

Inflation has caused many currencies to urge their value to decline with time. At the time of its launch, almost every cryptocurrency is released with a tough and fast amount. The ASCII computer file specifies the quantity of any coin; there are only 21 million Bitcoins released within the planet. So, because the demand increases, its value will increase which might maintain with the market and, within the long run, prevent inflation.

2. Self-governed and managed:

Governance and maintenance of any currency is also a serious factor for its development. The cryptocurrency transactions are stored by developers/miners on their hardware, for which they get the transaction fee as a gift for doing so. Since the miners have basically acquired it, they keep transaction records accurate and up-to-date, keeping the integrity of the cryptocurrency and also the records decentralized.

3. Decentralized:

A major pro of cryptocurrencies is that they are mainly decentralized. Many cryptocurrencies are controlled by the developers using it and those who have a significant amount of the coin or by a corporation to develop it before it is released into the market. The decentralization helps keep the currency monopoly free and in restraint, so no organization can determine the flow and so the worth of the coin, which, in turn, will keep it stable and secure, unlike fiat currencies which are controlled by the Government.

4. Cost-effective mode of transaction:

One of the frequent uses of cryptocurrencies is to send money across borders. With the help of cryptocurrency, the transaction fees paid by a user are reduced to aneeligible or zero amount. It does so by eliminating the need for third parties, like VISA or PayPal, to verify a transaction. It removes the requirement to pay any extra transaction fees.

5. Currency exchanges finish smoothly:

Cryptocurrency can be bought using many currencies like the US dollar, European euro, British unit of measurement, the Indian rupee, or Japanese yen. Varied cryptocurrency wallets and exchanges help convert one currency into another by trading in cryptocurrency, across different wallets, and by paying minimal transaction fees.

6. Secure and private:

Privacy and security have always been concerns for cryptocurrencies. The block chain ledger relies on different mathematical puzzles, which are hard to decode. It makes cryptocurrency safer than ordinary electronic transactions. Cryptocurrencies are for better security and privacy, and they use pseudonyms that are unconnected to any user account or stored data that might be linked to a profile.

7. Easy transfer of funds:

Cryptocurrencies have always kept themselves as an optimal solution for transactions. Transactions, whether international or domestic in cryptocurrencies, are lightning-fast. It is because the verification requires little time to process, as there are only some barriers to cross.

The cryptocurrency includes opportunities such as globalized market opportunities with growth and adaption ratio, which can become a global reserve currency. Cryptocurrencies are more efficient than the current prevailing financial system. Since there is no valid authority to control the cryptocurrency the chances of entry of it into the threshold is minimum. Cryptocurrencies can reduce the systematic risk concerning to the investors. The cryptocurrency network can allow the investors to reduce bureaucracy and can increase the efficiency of trading. There are possibilities of a cropping up different new business models in future which can help in the payment of real digital currency in gaming instead of game points, paywall functions, etc.

Weakness and threats of Cryptocurrency:

1. Illegal transactions:

Since the privacy and security of cryptocurrency transactions are high, it is hard for the government to trace down any user by their wallet address or keep tabs on their data. Bitcoin has been used as a mode of payment (exchanging money) during many illegal deals in the past, like buying drugs on the dark web. It has also been used by some people to convert their illicitly acquired money to hide its source, through a clean intermediary.

2. Risk of Data Loss:

The developers wanted to make virtually untraceable ASCII documents, strong hacking defenses, and impenetrable authentication protocols. It would make it safer to position money in cryptocurrencies than physical cash or bank vaults. But if any user loses the private key to their wallet, there is no getting it back. The wallet will remain locked away along with the number of coins inside it. It might result in the loss of the user.

3. Power lies in few hands:

Although cryptocurrencies are known for their feature of being decentralized, the flow and amount of some currencies within the market are still controlled by their creators and some organizations. These holders can manipulate the coin for enormous swings in its price. Even hugely traded coins are at risk of these manipulations like Bitcoin, whose value doubled several times in 2017.

4. Buying NFTs with other tokens:

Some cryptocurrencies can only be traded in one or some fiat currencies. It forces the user to convert these currencies into one or more of the currencies, like Bitcoin or Ethereum first and then through other exchanges, to their desired currency. It can apply to just some cryptocurrencies. By doing this, the extra transaction fees are added within the method, costing unnecessary money.

5. No refund or cancellation:

If there is a dispute between concerned parties, or if someone mistakenly sends funds to a wrong wallet address, the coin cannot be retrieved by the sender. It might be utilized by many folks to cheat others out of their money. Since there are no refunds, one can easily be created for a transaction whose product or services they never received.

6. High consumption of Energy:

Mining cryptocurrencies require plenty of computational power and electricity input, making it highly energy-intensive. The main culprit during this is often Bitcoin. Mining Bitcoin requires advanced computers and plenty of energy. One cannot do it on ordinary computers. Major Bitcoin miners are in countries like China that use coal to produce electricity. It has increased China's carbon footprint tremendously.

7. Vulnerable to hacks:

Although cryptocurrencies are very secure, exchanges don't seem to be that secure. Most exchanges store the wallet data of users to figure their user ID correctly. This data is often stolen by hackers, giving them access to lots of accounts.

After getting access, these hackers can efficiently transfer funds from those accounts. Some exchanges, like Bitfinex or Mt Gox, have been hacked within the past years, and Bitcoin has been stolen in thousands and countless US dollars. Most exchanges are highly secure nowadays, but there is always a possibility for a further hack.

Threats related to digital currency include: firstly, investor's speculative motive as prices of digital currency are highly volatile, speculators take advantage of this situation and within a short period. The popularity of cryptocurrency increasing rapidly leads to black marketing of cryptocurrency in the digital online platform. On the other side some countries do not support digital currency. They banned the trading of digital currency in their country. Unlimited numbers of digital currency will create a competitive environment. With this there may be a risk related to collapsing of digital currencies as they are not based on demand and supply that will lead to inflation and economic issues that increase the collapsing of cryptocurrencies. Opening an account on social media is not authenticated same as creating an account on a digital currency platform. Users can create multiple accounts or can use unknown identities for illegal work. There is no way to identify the authentication of users.

Conclusion :-

In India cryptocurrency market is rapidly increasing. As per the statistics shown for India, there are around 20 million active users of digital currency. The growth analysis shows that acceptance of digital currency is high in global world. The Indian ratio of acceptance is also high, as the government of India gives a green signal for digital currency users by imposing a 30% tax on income arising from cryptocurrency.

In India the trading market of digital currency increased by 640% from July 2020 to June 2021. A well regulated investor friendly policy can help India to become a faster digital hub. **India had traded more than \$10 billion during Covid situation, which is 42% of South Asia's total cryptocurrency investment.**

SWOT analysis shows that major strengths are decentralized market, no intervention of intermediaries, easy and quick transfers, and worldwide accessibility with nominal transaction cost. Major weaknesses are such as security concerns, scams and hacking issues, non-materialistic, high volatility, and less reliability. The bigger opportunities are welcoming cryptocurrencies such as globalized trading system, reduction in systematic risk of investors, new market opportunities, and redistribution of wealth. The major threats which reduced the adoption of digital currencies are such as black marketing, low acceptance due to lack of knowledge, collapsing concern, illegal in some countries, competitive and changing technological environment, and threats associated with unknown identity. Moreover, the comprehensive analysis of cryptocurrency with conventional means of investments shows that in India investor still prefers conventional investment instruments such as bonds, shares, stocks, precious metals, mutual funds, etc. as they are more informative of these instruments, they lack cryptocurrency

References:-

- Jonathan Chiu and Thorsten Koepl (2017), “The Economics of Cryptocurrencies Bitcoin and Beyond” Econpapers Department of Economics Queen’s University, Canada, April, Pp 15-55.
- Ugo Giorgio Zoli lo Prinzi,(2017) “Cryptocurrency In A Globalized World: A Comparative Analysis Of Bitcoin As A Financial Asset”, Department of Economics and Finance, LUISS University, Pp 14-18.
- Modgil, S. (2017, June 26). Indian Government Mulling Legalising Bitcoin Cryptocurrency In India. Retrieved from Inc 42: <https://inc42.com/buzz/bitcoin-cryptocurrency-india-government/>
- Magro, P. (2016, July 16). What Greece can learn from bitcoin adoption in Latin America. Retrieved July 2016, from International Business Times Website: <http://www.ibtimes.co.uk/what-greece-can-learn-bitcoin-adoption-latin-america-1511183>
- RBI. (2017-18, December 29). Master Direction on Issuance and Operation of Prepaid Payment Instruments. Fourth Bi-monthly Monetary Policy Statement