



INTERNATIONAL RESEARCH JOURNAL OF HUMANITIES AND INTERDISCIPLINARY STUDIES

(Peer-reviewed, Refereed, Indexed & Open Access Journal)

DOI : 03.2021-11278686

ISSN : 2582-8568

IMPACT FACTOR : 5.828 (SJIF 2022)

An Analytical Study on Crypto Currency in India

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DOI No. **03.2021-11278686** DOI Link :: <https://doi-ds.org/doi/10.24018/irjhis.v2i3.2203025>

Abstract:

Many activities in our everyday lives have been combined online as a result of the rapid growth of information and communication technology, making them more flexible and effective. A massive increase in the number of online users has reactivated virtual word notions and spawned a new commercial phenomenon known as cryptocurrencies, which is used to expedite financial transactions such as buying, selling, and trading. In recent years, virtual currency has become widely used in a variety of systems. Because virtual money is not fully regulated and managed, most governments have refused to use it in their economic activities. This research paper explores the current legality of cryptocurrency as well as the impact of future government actions on digital currencies. The report also examines the hazards of investing in Bitcoin and other cryptocurrencies.

Keywords: Bitcoin, Cryptocurrency, Challenges in Cryptocurrency, Government future move on Cryptocurrency, Uses of Cryptocurrency, Gold, legality, RBI.

Introduction:

Today's economies are all money economies because all economies have adopted particular currencies as a medium of exchange. Because the money supply generates inflation and deflation in economies due to its excess supply and contraction, governments regulate the currencies of various countries to counteract inflation and deflation. Many governments throughout the world are now focusing on digital currencies and transactions. Even some people do not want their money and transactions to be regulated. This resulted in more innovation in a new currency, crypto currency,

which is one of the most advanced, ambiguous, and regulation-free currencies. In this paper, researchers attempted to research crypto money in India, as well as its development and transactions. Bitcoin is a type of digital currency. It is a decentralised digital currency with no central bank or single administrator that can be sent directly from one user to another on the peer-to-peer Bitcoin network.

Network nodes use cryptography to verify transactions, which are then stored in a public distributed ledger called a block chain. Bitcoin was created in 2008 by an unknown person or group of persons under the name Satoshi Nakamoto, and it became operational in 2009 after its source code was made publicly available. Bitcoins are created as a result of the mining process. They can be exchanged for a variety of other currencies, goods, and services. According to University of Cambridge research, there were 2.9 to 5.8 million unique users in 2017.

Statement of the Problem:

Through innovation and the use of digital money, the world is moving away from cash-based transactions. One of the most significant innovations in money is crypto currency, which is digital money that is not governed by any authority or central bank and is a universal currency. However, there are certain issues with this new currency, which has caused many countries to hold off on using it. India is one of the countries that has banned the use and mining of Bitcoins. However, as per a Supreme Court judgement, Bitcoin trading is no longer banned in India as of now. That is why it is critical to understand Bitcoin trading in India, how it works, how it evolved in India, and the parties involved in these transactions.

Objectives of the Study:

1. To learn about the legality of Bitcoin in India and how to trade it.
2. To assess the investment risk of Bitcoin and gold.

Research Methodology:

This study's analytical research approach was chosen by the researchers. To meet the research's aims, the researcher gathered secondary data from financial websites, the Indian government, journals, newspapers, books, and magazines, among other sources.

Sources of Data Collection:

Secondary Data:

Secondary data was collected from published sources such as academic libraries, web sites, books, journals and magazines.

Period of the study:

The study period covers Bitcoin monthly value from march-2018 to Jan 2021 and gold monthly value from March-2018 to Jan 2021.

Hypothesis:

Ho: There is no significant difference in the volatility of values of gold and bit coins in India.

H1: There is a significant difference in the volatility of values of gold and bit coins in India.

Bitcoin Meaning and How It Working:

Digital Currency:

The digital equivalent of a country's real currency is known as digital currency. Transactions and other services that would ordinarily be carried out with physical currency can now be carried out with digital currency.

Virtual Currency:

The government does not issue virtual currency, and it is not regulated by the government. Virtual currencies are issued by developers and can be used to make purchases in applications and games. They have no real value and can only be used digitally; they cannot be exchanged for fiat money. Although the terms "virtual currency" and "digital currency" are frequently used interchangeably, the distinction between the two is obvious from the preceding facts.

Cryptocurrency:

Cryptocurrencies are a decentralised kind of currency that are not regulated by any authorities. They're made with cryptography, which makes them much safer because double spending is prevented. Furthermore, because there are no intermediaries, they can be sent directly to the recipient's digital wallet.

How does Bitcoin Work?

Each Bitcoin is essentially a computer file that is stored on a smartphone or computer in a "digital wallet" programme.

Bitcoins (or portions thereof) can be sent to your digital wallet, and you can send Bitcoins to others. Every single transaction is recorded in the blockchain, which is a public ledger.

This allows people to follow the history of Bitcoins, preventing them from spending coins they don't own, copying transactions, or undoing them.

How do people get Bitcoins?

There are three main ways people get Bitcoins.

- You can buy Bitcoins using 'real' money.
- You can sell things and let people pay you with Bitcoins.
- Or they can be created using a computer

How are new Bitcoins created?

People can make their computers execute transactions for everyone in order for the Bitcoin system to run. The machines are designed to solve extremely complex math problems. They are

occasionally rewarded with a Bitcoin that is kept by the owner. People build powerful computers only for the purpose of obtaining Bitcoins. This is referred to as mining. However, preventing the creation of too many Bitcoins is getting increasingly difficult. It could take years before you get a single Bitcoin if you start mining now. You can wind up spending more money on your computer's electricity than the Bitcoin is worth.

Why are Bitcoins valuable?

Gold and diamonds are two examples of non-monetary items that humans deem valuable. Cocoa beans were utilised as currency by the Aztecs. People are willing to trade bitcoins for real goods and services, as well as cash, making them valuable.

Why do people want Bitcoins?

Some people prefer Bitcoin because it is not regulated by the government or banks. People can also spend Bitcoins in a relatively anonymous manner. Despite the fact that all transactions are logged, no one would know which 'account number' belonged to you until you notified them.

How to Buy and Sell Bitcoin in India:

Increased government regulations are mostly to blame for the declining trend in bitcoin trading in India. This does not, however, prevent people from dealing. Many Indians trade using two methods: 1) exchanges and 2) peer-to-peer (P2P) methods. Both of these procedures adhere to KYC guidelines and typically require documents such as a Pan Card, Aadhaar card, or passport.

Top Bitcoin Exchanges in India:

Popular exchanges like Zeb Pay have had to shut down since banking institutions in India have banned crypto currency trading. Nonetheless, in India, the following top exchanges are still in use:

Unocoin:

Unocoin is India's leading Bitcoin exchange, having been created in 2013. It is backed by US funding and is a regulated corporation that charges low 1 percent fees that drop to 0.7 percent when trading volumes increase. It's a simple exchange platform that lets customers buy cryptocurrency with any Indian bank account. However, with the proposed ban in place, things may become more difficult for Unocoin.

WazirX

WazirX was created in 2018 and is one of India's most reputable exchange platforms. It focuses on exchange-escrowed peer-to-peer (P2P) services to allow clients to keep withdrawing INR. WazirX adheres to KYC guidelines, offers a mobile app for both Android and iOS users, and promises to be able to process hundreds of transactions each second.

Other Methods:

Despite the bank limitations, P2P trading platforms allow Bitcoin purchases outside of exchanges in India. In India, there are two major peer-to-peer (P2P) marketplaces:

Paxful is a peer-to-peer marketplace that allows buyers and sellers to meet online and trade Bitcoin directly with one another. It was created in 2015. Paxful sellers offer over 300 payment methods, including popular Indian options like Paytm, Bheem, and Phonepe. As a result of the convenience of usage and payment, many Indians use Paxful. Because Bitcoin is exchanged at a premium, there is no charge for using the service.

Local Bitcoins accepts the most common payment options and allows people from all around the world to buy Bitcoin in their own currency. Local Bitcoins is currently available in Mumbai, Hyderabad, Kolkata, Delhi, Ahmedabad, Chandigarh, Pune, Guwahati, and other major Indian cities. Many people have been affected by the 2019 Supreme Court proposal once again.

Bitcoin And RBI:

The prevalent perception of cryptocurrencies in India is negative. The Reserve Bank of India (RBI) examined a now-defunct plan in 2017 to establish Lakshmi, India's own crypto currency. It's also looking into ways to encourage financial and payment firms to use blockchain technology. The government, on the other hand, has rejected Bitcoin, with politicians preferring to criminalise it through incarceration and legal action. Bitcoin is not considered legal cash, and the Banning of Cryptocurrency and Regulation of Official Digital Currency Bill was presented on July 23, 2019. Unocoin, an exchange situated in India, used to allow users to trade Bitcoins but has since been blocked. However, digital currency exchanges such as Zeb Pay, Coin Delta, and Coin Secure continue to trade Bitcoin in India. The majority of Bitcoin buyers do so through the diaspora.

Is Bitcoin Legal in India?

In his budget statement on February 1, 2018, Finance Minister Arun Jaitley indicated that the government will do everything possible to prevent the use of bitcoin and other virtual currencies for illegal purposes in India. He reaffirmed that India does not recognise them as legal cash and that blockchain technology will be encouraged in payment systems instead.

"The government does not recognise bitcoin as legal tender or coin, and it will take all necessary steps to prevent these crypto assets from being used to finance illegal activities or as part of the payment system," Jaitley added.

The Reserve Bank of India (RBI) issued a prohibition on the selling or acquisition of cryptocurrency for organisations regulated by the RBI in early 2018. Cryptocurrency prohibition and official regulation

Data Analysis:

The following table showing trends of Bitcoin value in respect of Indian rupee

Gold value (10 grams)			Bitcoin value		
Date	Price	Change %	Date	Price	Change %
Jan 2021	34,692.79	-1.71%	Jan-21	26,37,105	24.64%
Dec 2020	35,914.04	6.41%	Dec-20	21,15,850	45.18%
Nov 2020	31,716.05	-5.63%	Nov-20	14,57,389	41.63%
Oct 2020	35,615.24	-0.81%	Oct-20	10,28,993	29.89%
Sep 2020	36,198.87	-4.22%	Sep-20	7,92,221	-7.18%
Aug 2020	39,461.82	-0.46%	Aug-20	8,53,531	0.62%
Jul 2020	39,824.19	9.20%	Jul-20	8,48,261	22.87%
Jun 2020	33,397.56	3.23%	Jun-20	6,90,369	-3.49%
May 2020	31,339.62	3.75%	May-20	7,15,323	10.30%
Apr 2020	29,114.60	6.74%	Apr-20	6,48,529	34.20%
Mar 2020	25,555.22	0.73%	Mar-20	4,83,270	-21.91%
Feb 2020	25,185.69	-1.68%	Feb-20	6,18,838	-7.53%
Jan 2020	26,053.19	3.79%	Jan-20	6,69,214	30.35%
Dec 2019	24,186.47	3.62%	Dec-19	5,13,407	-5.16%
Nov 2019	22,524.01	-3.03%	Nov-19	5,41,312	-16.66%
Oct 2019	23,953.75	2.77%	Oct-19	6,49,510	10.86%
Sep 2019	22,680.36	-3.49%	Sep-19	5,85,865	-14.52%
Aug 2019	24,348.48	6.15%	Aug-19	6,85,360	-1.32%
Jul 2019	21,609.00	1.36%	Jul-19	6,94,522	-6.68%
Jun 2019	21,033.70	7.14%	Jun-19	7,44,275	25.36%
May 2019	18,322.33	-0.98%	May-19	5,93,713	52.46%
Apr 2019	17,966.72	-0.74%	Apr-19	3,89,434	34.57%
Mar 2019	18,235.80	-1.81%	Mar-19	2,89,395	4.89%
Feb 2019	18,914.50	-0.63%	Feb-19	2,75,899	10.61%
Jan 2019	19,154.56	2.74%	Jan-19	2,49,431	-6.63%
Dec 2018	18,146.78	4.21%	Dec-18	2,67,136	-5.19%
Nov 2018	16,710.73	0.35%	Nov-18	2,81,748	-40.28%
Oct 2018	16,594.59	1.54%	Oct-18	4,71,799	-1.70%
Sep 2018	16,096.00	-0.70%	Sep-18	4,79,973	-3.62%
Aug 2018	16,325.17	-2.45%	Aug-18	4,97,978	-6.15%
Jul 2018	17,155.76	-2.52%	Jul-18	5,30,589	21.29%

Jun 2018	18,055.30	-3.68%	Jun-18	4,37,470	-13.36%
May 2018	19,460.25	-1.70%	May-18	5,04,930	-17.63%
Apr 2018	20,138.45	-0.48%	Apr-18	6,13,004	36.06%
Mar 2018	20,334.76	0.48%	Mar-18	4,50,550	-33.03%
Mean	24457.61			694462.66	
Std deviation	7321.635818			484932.45	
Co-Variance	0.299360233			0.6982844	
Correlation coefficient	0.640122673				

(Source: investing india.com)

	Variable 1	Variable 2
Mean	24457.61	694462.6571
Variance	53606351.05	2.35159E+11
Observations	35	35
Hypothesized Mean Difference	0	
Df	34	
t Stat	-8.172997212	
P(T<=t) one-tail	7.79545E-10	
t Critical one-tail	1.690924198	
P(T<=t) two-tail	1.55909E-09	
t Critical two-tail	2.032244498	

Inference:

Above table showing that in one tail test Calculated T value (7.79) is greater than table value of t (1.690) so alternative hypothesis has been accepted means there is a significant difference between in changing in the values of gold and bitcoin. But as per two tailed test Calculated T value (1.55) is lesser than table value of t (2.03) so null hypothesis has been accepted means there is no significant difference between in changing in the values of gold and bit coin.

Observations of the Study:

1. In March 2020, the Supreme Court of India passed the verdict, revoking the RBI ban on cryptocurrency trade. Now crypto currency trading is legal in India.

2. In 2021, the government is exploring the creation of a state-backed digital currency issued by the Reserve Bank of India, while banning private ones like Bitcoin. Hence trading in cryptocurrency is dangerous.

3. Change in the value of gold was too low in nov 2020 it was -5.63%, and it was very high in the month of July 2020 it was 9.20%

4. Change in the value of gold was too low in nov 2020 it was -5.63%, and it was very high in the month of July 2020 it was 9.20%

5. Volatility of gold value from March 2018 to Jan 2021 is very less (means changes in value of gold is consistent).

6. Volatility of Bitcoin value from March 2018 to Jan 2021 is very high (means changes in value of gold is inconsistent).

7. As comparing to changes bitcoin and gold here researcher found that there is a significant changes in their values hence investing in gold is better than investing in Bitcoin.

Conclusion:

The origins of bitcoin may be traced back to Satoshi Nakamoto's white paper, which proposed "a system for electronic transactions" based on a peer-to-peer network, in which transactions would be validated and recorded by network nodes, or computing systems, making transactions decentralised. Soon after, Satoshi Nakamoto created the first cryptocurrency, Bitcoin, in 2009. The Inter-Ministerial Committee, which was established on November 2, 2017, to recommend specific action on crypto currencies, has prepared a draught bill titled "Banning of Cryptocurrency and Regulation of Official Digital Currency Bill, 2019 (Draft Bill)." The Draft Bill is still being considered and will not be introduced in Parliament. The draught bill defines "cryptocurrency" broadly and essentially outlaws its use.

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