

CRYPTOCURRENCY AND ITS FUNDAMENTAL ASPECTS

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ABSTRACT

Humans have used commonly commodity currency in the previous era. The more recent is a fiat currency, used around 1000 years ago and today it is the dominant form of money. But it is not the end of monetary history. Cryptocurrency neither a commodity currency nor a fiat currency. It is an experimental kind of money. The experiment on cryptocurrency ultimately may or may not exceed, but it introduces a new mix of monetary and technical characteristics that raises different economic questions as compared to other country's currencies. Bitcoin, the world's most common and known Cryptocurrency. Its popularity increasing day by day. It is having the basic structure when created in 2008 but repeat instances of the world market changing has created a new demand for Cryptocurrencies much greater than its showing.

Cryptocurrency is an encrypted, peer to peer to facilitate digital barter system is a technology developed by Satoshi Nakamoto, 8 years ago. Bitcoin is the first and most popular cryptocurrency paving its way as a disruptive technology to long standing and unchanged financial systems that have been in place for many decades. It was published through a mailing address for cryptography and having a similar appearance to an academic paper. While cryptocurrency is not supposed to replace traditional fiat currency. They could only change the way internet connected global markets interact with each other, clearing barriers surrounding normative national currencies and exchange rates. Cryptocurrency may revolutionize digital trade markets by creating a smooth flow of trading system without fees. Bitcoin is not a physical coin that you can keep in reserves or in your wallet. It is a virtual currency, a digital computer code you store in a virtual wallet in cyberspace and have access with computer or smartphone app. Bitcoin is revolutionary as it allows to transfer money person to person very convenient (sending like an email) even across international borders. Bitcoin has become a cultural and financial phenomenon. In short, Bitcoin is a digital currency, or "Cryptocurrency" that allows person to person transactions without depending on the banking system. Bitcoin is not a physical coin that you keep in your wallet. Rather, Bitcoin is a virtual currency – digital computer code that you store in a virtual wallet in cyberspace and can have access with a computer or

smartphone app. Some see Bitcoin as a revolutionary because it allows people to transfer money to each other very easily (like sending an email) even across international borders.

By using a cryptocurrency, users can exchange their value digitally, without involving third party insight. Cryptocurrency works on the theory of solving encrypted algorithms to create unique hashes that are fix in number. Combined with a network of computers verifying transactions, users can exchange hashes as if exchanging physical currency. There is a finite number of bitcoins that are generated, prevention and overabundance and ensures its rarity. Water which is a life-giving material, is generally available free of cost because it is so abundant. If water became rare, it would be more valuable than diamonds even. Value exists for bitcoin users because its users have trust that if they accept it as a payment, then they could use it elsewhere to purchase anything they want or need. If users can maintain faith, the valued object can be anything. Bitcoin's value exists in its environment in the same way that wampum, a seashell, was the currency of the land for Native Americans.

The term "Virtual Currency" refers to medium of exchange existing entirely in intangible form that is not a legal tender but can be substituted for each other. A subset of virtual currency is "Cryptocurrency" which implies an internet based virtual currency in which the ownership of a unit of value is validated using cryptography. Its value varies by its volatility in the market. As against commodity-based currencies which derives its intrinsic value through the market the central authority. It is not a legal tender and thus their use requires the agreement among parties for a transaction. E.g. Bitcoin do not have physical presence and their identity is by entries which is done in exhaustive database known as the "Blockchain", which is maintained over a peer- to – peer network.

Bitcoin does not have intrinsic value like Gold in that it cannot be used to make physical objects to be used like jewelry that have value. Nevertheless, value continue to exist due to faith and acceptance.

The nature of the Bitcoin as a disruptive currency, payment system and asset is juxtaposed against the potential of its transactional ledger, the bitcoin is the revolutionary way of recording "digital truth' 'The paper has certain objective such as to analyze cryptocurrency is an economic bubble or not, to analyze cryptocurrency should be legal or not in India, to analyze strengths, weakness, opportunities and threats of the cryptocurrency, to ascertain the benefits and harms on the business class people.

The study of the bitcoin and cryptocurrency is based on the secondary data. The data is based on the various newspapers, magazines, research papers. The study also finds the SWOT of the Bitcoin. In SWOT study we will be able to ascertain strengths, weakness, opportunities and

threats of the Bitcoin. The paper brings out the detailed information about the various aspects of the Cryptocurrency such as Why Cryptocurrency is not legal in India.

The main objective of the paper is to analyze the various positive and negative aspects of the Bitcoin which are the important aspect of the digital currency to throw light on these aspects.

Keywords: Cryptocurrency, Bitcoin, SWOT analysis, Disruptive, Digital Currency, Virtual currency, Economic bubble, legal.

1. INTRODUCTION

The world of money and finance is rapidly changing before our eyes. Digital assets, innovative financial system has entirely changed the exchange in the economy, this has led to the invention of digital currency in the global market. Crypto currency is a virtual currency which is constructed to function as medium of exchange and to control the creation of additional units of currency by the usage of advanced encryption techniques which is called as cryptography. Crypto currency made the leap from being an academic concept to the digital reality with the invention of Bit coin in 2009. It is an encrypted, peer to facilitate digital barter system is a technology developed by Satoshi Nakamoto, 8 years ago. This entire paper describes about the silent feature of crypto currency and the pros and cons associated with it. There is a frenzy around the notion of crypto currencies that is not met with a corresponding understanding of their nature, and to this point, the feature of "virtual money" is one that this long infuse in human involvement with both debt and money in any case (Graeber, 2011). Farrell explains it, "The crypto currency market has evolved erratically and at unprecedented speed throughout its short lifespan," (2015). However, given the recentness of crypto currencies specifically and the "excitement" around them (Narayanan et al, 2016), the literature can at best be viewed as emergent, and as an area of significant academic inquiry in the years to come. Bit coin, the world's most common and known Crypto currency. Its popularity increasing day by day. It is having the basic structure when created in 2008 but repeat instances of the world market changing have created a new demand for it. It is the crypto currency which is paving its way as a disruptive technology to long-standing and unchanged financial systems that have been in place for many decades. "One of the traditional strengths of Bit coin, the peer-to-peer crypto currency, has been its decentralization. Because no one oversees the network, users place their trust in the security of the Bit coin protocol rather than in any specific institution. (Timothy B Lee, Tech Policy Reporter, Ars Technica). Santosh created a formula of so sophisticated that when it is solved with the usage of computer programming power it forms 'blocks' of data which has Bitcoins. It acts as a magnet which attracts the investors from the past years. In 2013, it captured significant investors and media attention when it reached the height of \$266 per bit coin while surging 10 folds in past 2 months. Bit coin reported a market value of over \$2 billion at its

height, but a 50% fall shortly thereafter sparked a raging debate about the future of crypto currencies in and Bitcoin in early 2018, Bloomberg News reported the largest crypto currency exchanges based on the volume and forecasted revenues data collected by Coin Market Cap.

2. REVIEW OF LITERATURE

Joseph Stiglitz, a famous economist, is bragging to the Davos crowd that bit coin is used for “secret cases” and the fiat money is superior. This theory is the type of fear mongering drives more adoption of Bit coin and Crypto currencies. According to Dwyer, (2015), the major innovation in the bit coin is its decentralized technology. Instead of storing transactions, on a single or a set of servers, the database is distributed across a network of participating networks. The database is what is called as Block chain. Blocks are added to the chains in the process of mining bit coins. The process of mining revolves around solving computational complex puzzles, and the incentives for miners is to participate that transactional fees and Bit coin rewards. He describes Bitcoin as an electronic currency that can be used to trade and store in a personal balance sheet. His argument was further supported by Polasik et el (2015), who adds that Bit coin can operate as a medium of exchange alongside other payment technologies. As an increasing number of researchers have focused on the existence of fundamental value of Bit coin, and some have discussed that whether Bit coin is an economic bubble or not. Garcia et al (2014), discovered that bit coin is a financial bubble because of the difference between the exchange rate and the fundamental value of Bit coin. He argues that for a fundamental value given the cost of mining. Similarly, Hayes (2015, 2018) proposed a specific cost of production model for valuating Bit coin. Further, Cheah and Fry (2015) conclude that Bit coin is a speculative bubble and that the fundamental value of Bit coin is zero. Unlike earlier researches, Corbet et al, (2017) found that there is no clear evidence of a bubble in Bit coin. While authors discuss if Bitcoin is a bubble or not. Bouri et al (2017b) found that bit coin could be used as an effective diversifier and, in some periods, safe heaven and hedge properties.

3. OBJECTIVES OF THE STUDY

1. SWOT of the cryptocurrency.
2. Legal status of cryptocurrency in India.
3. Pros and Cons of Bitcoin.

4. RESEARCH METHODOLOGY

The study is totally based on secondary data. The resources used to collect data on Cryptocurrency are from various journals, websites, magazines, research papers, and various articles from the Government has been used as source for collecting information.

5. SCOPE OF THE STUDY

This study aims to analyze the various facts of Cryptocurrency. It will help to figure out several aspects of the Bitcoin such as legal status of the digital wallet in the country e.g., In India the status of digital wallet. In this paper, we will also be discussing pros and cons of cryptocurrencies.

6. SWOT OF THE CRYPTOCURRENCY

(i). Strength

Bitcoin has strength intentionally to form it a lot of valid currency that has elevated it in standing over the years, a lot of notably the fastened limit of bitcoin that may exist. Bitcoin will be well mined with decreasing returns each four years till the most range of bitcoins area unit reaches; a complete of 21 million. The side of bitcoin is effective for its worth, because of the restricted amounts of bit coin, it will never be inflated from associate overburdandance of bitcoins. Bit coin and different cryptocurrencies additionally thought about as being shielded from inflation originating from national government changes or restrictions. It creates a “haven” for the investors to stay their onerous cash into, because it sometimes does not lose its worth due to inflation. Bitcoin quickly shows its strength as a expatriate against inflating nation currencies. However, just in case of most of the commodities, the worth will fluctuate supported several different external factors.

(ii). Weakness

Crypto currency also having few internal weaknesses that are parts of its design and cannot be easily modified. The public ledger or block chain means that every user can see every transaction. There is semi- anonymity, in that the owners of Bit coin wallets cannot be figure out outrightly. But it is slightly nerved- wrecking for some potential adaptors. The public block chain is shared with all the users, that it is susceptible to attack due to easy access. So far, the Bit coin is subjected to multiple “Stress attacks” that are essentially DDoS attacks. These “tests” were launched and exchanged by miners which attempt to prove a point about Bit coin’s design that the network cannot handle a high load transaction cost. The mere fact that the users of Bit coin’s operation can bring the network down to prove a point is an inappropriate design feature of the code. These two aspects of Bit coin design are integral to operation and cannot be altered. Adoption by reluctant users must be despite these attributes. Bit coin has formulated a questionable reputation through past events. Crypto currencies’ ability to be traded as a commodity is also a weakness. Commodity based market shows a huge fluctuation in value from various events in the marketplace. The value fluctuations ultimately limit the investors trust in the commodities. An unforeseen event could cause an investor to loss a huge portion of

money, decreasing investor trust. Also, determinate of bit coin price has not only meted out, which creates an uncertain trading surrounding.

(iii). Opportunities

Crypto currency is in a unique position as a forgoer in a possibly changing technology to long-standing financial systems. By its very nature, it can fill gaps in current financial technologies, and be able to help solve traditional banking problems by being a peer-to-peer system. Napster, another peer-to-peer system, transformed the music industry by cutting out the middle man. Changing technologies start by solving a problem in an industry. For example, crypto currencies are poised to help solve the problems related to unbaked consumers. Significant portions of the population in developing countries are unbaked. In Latin, America, 60% of 600 million inhabitants have no access to bank accounts. Bit coin's technology allows for users to exchange currency without requiring a third trusted party, and like a bank, to oversee the transaction. All that is required to use Bit coin is a mobile phone which 70% of Latin Americans do have access to. Due to bit coin's ad hoc networking capability, two parties can trade bit coin with each other by scanning QR codes showed on their phones printed out by the application. This is a truly unique solution to a problem that has been in existence for many people. This would invariably increase as the user base increases, so the demand for better crypto currency network and applications will come to the forefront. Businesses are starting to see the value in using crypto currencies for international trade, especially when transactions need to occur immediately in response to an emergency. Crypto currencies are solely positioned to remediate this problem thanks to the speed and simplicity of transaction in the peer-to system. Money can be wired globally, but typically arriving days after being sent and not for the full amount. The transaction can be hit with any number of unexplained fees as it crosses borders, making it difficult to send the correct amount to another business.

(iv). Threats

Bitcoin has quite a few obstacles to clear for user acceptance to become widespread. The value fluctuations that plague crypto currencies put doubt in users, as well as investors. Finally, a limiting factor in crypto currency is general acceptance. Value fluctuations decreases trust that a consumer's value would be retained on daily basis, limiting faith in the currencies overall worth. In a survey performed by PwC, 83% of those surveyed had little or no familiarity of bit coin. The lack of central ownership of crypto currencies means that any renices means that any attempt to resolve this marketing problem using advertisements could theoretically help the investing company's competition. This is not an ideal situation for a marketing plan. Crypto currencies have also viewed fraud and theft, generally because of faulty system setups by exchange companies. These hacks generally make the news and can simply convince the layman that they

are not in safe locations to keep their money. There is also a large difference in laws that cover the use of crypto currency. If crypto currencies remain in an area not generally covered by law, user acceptance will be limited. User's needs to trust that any transactions using crypto currencies are legal and binding. Markets and governments are slow to react in respect of the new technology. Finally, all these factors limit consumer's trust in bitcoin and crypto currency.

7. HOW TO INVEST IN CRYPTO CURRENCY

In India, a personal should purchase Bit coin from Zebpay exchange. Zebpay has humanoid and iPhone that allows you to connect your bank accounts for fast transfers. One should buy bit coin by creating a payment of Zebpay's checking account. One may withdraw the cash from own account and track on Bit coin valuation within the country. Sandeep Goenka, business executive of Zebpay one in all the very best bit coin exchanges within the country. 'Indians square measure inquiring concerning bitcoin as another and safe investment possibility. they're downloading Zebpay as folks wish to experiment with digital currencies. There have diode to five hundredth increase in Zebpay downloads. officers at Zebpay, India's leading from bit coin exchange aforementioned the business was adding close to two, 00,000 users monthly with associate calculable trade volume of concerning twenty billion Indian rupees (\$315 million). Aman Kalra, promoting head of Coin secure, a touch coin exchange in capital of India, aforementioned quite 150bit coins square measure dynamical hands each week through its platform. the corporate has one, 00,000 registered users and is currently launching a platform to sell Ethereum and alternative digital currencies.

8. STATUS OF BITCOIN IN ASIAN COUNTRIES.

The main downside with the status of bit coins ought to be handled whether or not they square measure a currency, security, artefact or one thing fully completely different. Meanwhile, bitcoins square measure chiefly thought of as a 'currency' as they need several common characteristics of 1, the legal definition needs a currency to be issued, used and accepted by a rustic that isn't the case of Bit coin. Another downside with bit coin is that not all the countries have legalized its use. For customers, some countries like Australia, Canada, Finland, and European country has legalized its use and created it clear to use as a standard earning medium as bit coin, whereas several countries haven't nevertheless created a transparent statement with group action, and therefore the use of bit coin. On the hand Thailand has created bitcoin use extrajudicial. The non- uniformity within the group action of bit coin in numerous countries may be a major issue. In March tally Deputy Governor R Gandhi warned against Crypto currencies as bit coin. "They cause potential, financial, legal, client protection, and security connected risks. "Payments by such currencies square measure on a peer-to — peer basis, and there's no established framework for recourse to client issues, disputes, etc. status isn't

there. Bitcoins aren't licensed nevertheless however there's a scope to be legalized beneath completely different legislation. in keeping with the interchange Management Act, 1999, currency is outlined as "all currency notes, communication notes, communication orders, cash orders, cheque, drafts, travelers' cheque, letter of credit, bills of exchange, and commitment notes, credit cards or such alternative similar instruments, as could also be notified by the banking concern." in keeping with the definition, tally has the facility to incorporate bit coins with the definitions of currency. Currency except as "Indian Currency" is outlined as "Foreign Currency" and managed by interchange laws. most likely bit coins square measure regulated by interchange laws. the foremost seemingly bit coins are often ruled by interchange laws. Further, Bit coin may be additional as a "security" definition that states that "such alternative instruments could also be declared by the Central Government to be securities." additional the Indian Copyright act, 1957, defines the term, "computer program" as "a set of directions expressed in words, codes, schemes or the other form" together with a machine-readable medium, capable of inflicting a pc performing arts a task or reach a selected result. It is often over there's such a lot scope for legalizing bit coin. One should wait and watch that approach that steps Indian government can take. within the Union Budget, 2018, The government minister, Arun Jaitley reiterated that the Crypto currencies aren't thought of as monetary system. the govt. won't think about Crypto currencies as monetary system or coin and can take all measures to eliminate use of those crypto's- assets in finance extrajudicial activities or as a neighborhood of payment system. Government would try and explore the Crypto currencies, that derives bitcoin and alternative Crypto currencies. Recognition of block chain technology for future use in digital economy has received positive reactions from the business. although the budget doesn't specifically point out however block chain are going to be explored. It ought to be noted that within the digital economy the most important use for this has been around Crypto currencies like bit coin.

In India, an individual can purchase Bit coin from Zebpay exchange. Zebpay has Android and iPhone which lets you connect your bank accounts for quick transfers. One can buy bit coin by making a payment of Zebpay's bank account. One can also withdraw the money from own account and track on Bit coin valuation in the country. Sandeep Goenka, CEO of Zebpay, one of the highest bit coin exchanges in the country. 'Indians are inquiring about bitcoin as an alternative and safe investment option. They are downloading Zebpay as people want to experiment with digital currencies. There have led to 50% increase in Zebpay downloads. Officials at Zebpay, India's leading from bit coin exchange said the industry was adding near 2, 00,000 users every month with an estimated trade volume of about 20 billion Indian rupees (\$315 million). Aman Kalra, marketing head of Coin secure, a bit coin exchange in New Delhi, said more than 150bit coins are changing hands every week through its platform. The company has 1, 00,000 registered users and is now launching a platform to sell Ethereum and other digital currencies.

9. PROS AND CONS OF BITCOIN

Pros-

(a). Low transaction cost

As there is no involvement of third party, crypto currency transactions are cheaper and faster in comparison of traditional networks. However, the transactions are cheaper it makes the possibility of small payments and promises the small businesses and global remittances in lowering the transaction cost and alleviate global poverty by enhancing in, obtainment of capital, protect individuals against capital controls and censorship, ensure financial privacy for suppressed groups, and spur innovation. On the other hand, Bit coin's decentralized nature also presents opportunities for crime

(b). Asset Transfers

The financial analyst explains the crypto currency as resembling a "large property rights database," which can on one side be used to formulate and enforce two-party contracts on commodities such as automobiles or real estate. But the block chain crypto currency ecosystem may also be used to enable specialist modes of transfer. For example, crypto currency contracts can be formed to add third party approvals, refer to external information, or be completed at a specified date or time in the future. And since you as the cryptocurrency holder have exclusive governance of your account, this reducing the time and cost involved in making asset transfers.

(c). More Confidential Transactions

Under cash, and credit systems, your whole transaction history may become a reference document for the financial institution or credit agency involved, each time you make a transaction. At the easiest level, this might involve a check on your account balances to ensure that enough funds are available. For more complex, or business-critical transactions, a detailed examination of your financial history might be required. Another one of the great benefits of crypto currency is that each transaction you make is a unique exchange among the two parties, the terms of which may be negotiated and agreed in each case. What's more, the exchange of information is done on a "push" basis, where you can transmit exactly what you wish to send to the receiver — and nothing other than that. This secure the privacy of your financial history and saves you from the threat of account or identity theft which is more under the traditional system, where your information may be evaluated at any point in the transaction chain.

(d). Transaction Fees

You've no doubt read your monthly account statements from the bank or credit card company and balked at the level of fees imposed for writing checks, transferring funds, or breathing in the

general direction of the finance houses involved. Transaction fees can take a remarkable bite out of your assets — especially if you're undertaking a lot of transactions in a month. Since the data miners that do the number crunching which generates Bit coin and other crypto currencies receive their reimbursement from the crypto currency network involved, transaction fees usually don't apply. There may be charge by external party if you have taken service of maintains crypto currency wallet, but another positive thing of crypto currency is that they are still likely to be much lower than the transaction charges incurred by traditional financial systems.

(e). A greater Access to Credit

Digital data transfer and the internet is the media enabling in the exchange in crypto currencies. So, these services are conceivable to anyone who has a viable data connection, some knowledge of the crypto currency networks on offer, and ready access to their appropriate websites, and portals. It's forecasted that there are currently 2.2 billion individuals across the world who are using Internet or mobile phones, but don't have access to traditional systems of banking, or exchange. The crypto currency ecosystem holds the possibility of making asset transfer and transaction processing available to this huge market of willing consumers — once the appropriate infrastructure is put in place.

CONS

(a). Lack of Knowledge

Mostly people are not aware of how to use cryptocurrency and hence they open themselves to the hacker. The digital currency technology is somewhat complex, and therefore, one needs to be knowledgeable of it before investing.

(b). Strong Volatility

Since from the starting, cryptocurrencies having highly volatile nature. This is one of the major reasons in mass adoption is taking longer than it should. Many companies don't want to deal with a form of money that is going to go through huge swings in volatility.

(c). Large Risks of Investing in Crypto currency.

Crypto investments are involved heavy risk because of its volatile nature and terrorist and other illegal activity financing, lack of a central issuer which means there is no legal formal entity to guaranty in case of any insolvency

(d). Not Accepted Widely.

Still, crypto currencies are not acceptable by many countries and online websites, very few countries have legalized the usage of crypto currencies. It makes it impractical for daily usage.

(e). Due to a lack of acceptance

Not Able to Reverse the Payment. If you mistakenly paid someone by using crypto currency, then there is no way to get a refund of the amount paid. The only thing can be done to ask the person for a refund but if your request is not accepted, then just forget about the money.

10. CONCLUSION

This paper reflects all the fundamental aspects of the cryptocurrency i.e, SWOT, which indicates the various Strength, Weakness, Opportunities, and Threats of the Cryptocurrency. Moreover, this paper also reflects the legal status of cryptocurrencies in India, and the Various advantages and disadvantages of the Cryptocurrency. This paper is a review based study based on the secondary data and the information provided in this paper are collected from various journals, websites and researches.

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