

# CRYPTOCURRENCY – ITS PROSPECTS AND PITFALLS

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**Abstract :** Recently cryptocurrency considered as a major hazards for the fiat currency. High volatility and huge return in crypto currency such as bit coin creates treats for the money market. Virtual currency can't be authorized by the government of any nation. It follow decentralization network. Cryptocurrency is uses cryptography for security. It difficult to counterfeit because of high security features. Digital currencies have their own benefits and challenge. The paper elaborates history of cryptocurrency, contrast with fiat currency, present scenario, prospects and pitfalls. It was concluded that its quit complicated to determined the present of crypto currency market because it affected by high volatility. But the ultimately say that cryptocurrency have good future to compete with fiat currency and also creates threats for the financial market with the drawback of encryption, decentralization, tax evasion and lack of regulation etc.

**Index Terms -** *Cryptocurrency, Fiat currency, Prospects and Pitfalls.*

## I. INTRODUCTION

Money is considered as a fundamental based of the any countries. Any person cannot live blood same like economy of any country cannot run without money. Person can do any professional activities any with the main aim of getting money. Around in 18<sup>th</sup> century, the bank of Hindustan and Bengal bank become the first banks in india to issue first time paper currency in india. After that the reserve bank of india was set up in 1935 and authorized to issue currency notes and coins. Up to the 20<sup>th</sup> century world economy is based on the physical currency notes and coins. Official currency of any particular country is authorised and managed by the central bank of the particular country. 21<sup>st</sup> century is beginning with the extra ordinary technology, automation and modernization. Initial first decade of the 21<sup>st</sup> century give birth to the digital currency. Around 2008 Satoshi lunched the currency called as Bit coin. Digital currency mean there is no existence of physical currency. Digital currency cannot be issued and control by any authorized government. It's totally based on decentralized system. In simple sense digital means form of currency available in digital form. It also called as E-money, Virtual currency, digital cycle cash and crypto currency. Digital currency dealt with the tangible thing. Physical currencies limited to borders only but digital currency allows borderless transfer of ownership as well as instantaneous transactions.

## II. MEANING OF CRYPTOCURRENCY

A crypto currency is considered as a virtual asset designed to work as a medium of exchange. It uses cryptography to verify, and secure financial transaction. Cryptography controls the creation of number of unit of a particular currency. Crypto currency is managed at decentralized level with the help of block chain technology and not controlled by any central authority. Crypto currency free to the traditional ways of government control and intervention. It can be sent directly among two parties passing through the use of private and public keys without interference of intermediates. In crypto currency transaction processing fees are not charged by old financial institutions.

While crypto currencies are used to pay for goods or services as a consideration. Here each transaction is securely encrypted and recorded under public ledger called as block chain. The block chain makes certain a crypto currency's integrity and eliminates the need for a central administration like central bank. Here users are directly connected to each other in peer-to-peer transactions with a degree of anonymity provided by the block chain ledger. A crypto currency wallet is exercise to store range crypto currencies. Such currency can be exchanged with fiat currencies in special online markets at a variable exchange rate with foremost world currencies such as US dollar, British pound, japans yen and European euro.

## III. HISTORY OF DIGITAL CURRENCY

Crypto currencies technical founded early 1980s, when an American cryptographer named David Chaum invented a concept of digital cash. In 1990 he founded Digi cash an electronic company. It utilize "blinding" algorithm that remains central to modern web-based encryption. The algorithm permitted for secure, permanent information exchange between parties arranged the basis for future electronic currency transfers. It is called as "Blinded money. Later it filed for bankrupt in 1998. E-gold was the first mostly used Internet money was introduced in 1996 and develops to a number of users before the US Government shut it falls in 2008. Currency holders of the e-gold mailing list used the term "digital currency" to describe peer to peer payments in diverse instruments.

In recent era only one crypto currency get attention of whole world such called as Bitcoin. Bitcoin was founded by Satoshi Nakamoto in 2008 and initiated in 2009. Since the creation of Bit coin in 2009 after that numerous private crypto currencies have been introduced in coin market. Recently the coin market reaches up to billions. Bit coin is generating remuneration such process called as mining. One Bit coin is by far the most successful one. It has been getting a lot of media attention of whole world and its total market value has reached 20 billion USD in March 2017. Most essentially, central banks of the different countries started recently to explore the adoption of crypto currency and block chain technologies for retail and large-value payments. For instance, the People's Bank of China intends to develop a nationwide digital currency based on block chain technology. The Bank of Canada and Monetary Authority of Singapore are learning its practice for interbank payment systems.

#### IV. OBJECTIVES OF THE STUDY

To study the concept of crypto currency, describe the prospects and challenges of crypto currency.

#### V. DIFFERENCE BETWEEN FIAT CURRENCY AND CRYPTO CURRENCY

Fiat Money is a physical currency issued by the central government and regulated by a central authority such as a Indian rupee controlled by Reserve Bank of India. Such currencies act like legal tender and it is based on the credit of the economy. Fiat currencies example like the US Dollar, UK Pound, Japanese yen, rupee or Euro derive their value from the forces of supply and demand in the market. Fiat currency initially came into existence around 1000 AD in China before scattering to other parts of the world. Firstly, currencies were stand on physical commodities such as gold. In 20th century that President Richard Nixon stopped the conversion of U.S dollar into gold.

While a crypto currency is a form of digital or virtual currency that can work as a medium of exchange. Virtual currency use cryptography technology to process, secure and verify transactions. cryptocurrencies are managed decentralized and not controlled by any central authority such as a central bank. They are limited entries in a database such as a block chain and no one can change or manipulate, unless certain conditions are met so consisting high security. Satoshi Nakamoto was brainchild behind Bitcoin crypto currency. Nakamoto did not propose to extend a currency but allotted the facility of peer-to-peer electronic cash system for transactions without any central supervision. In a decentralized network proceed with the help of block chain. Every transaction, all coin holders and all the details are covered under the encryption.

#### VI. ILLUSTRATION OF CRYPTO CURRENCY



##### A. Bit coin (BTC)

Bit coin is one of the most prominent used digital currencies. It's a peer-to-peer version of electronic cash transfer which would permit online payments to be sent openly from one party to another without intervention of financial intermediates." Bitcoin was invented in 2008 by person called as Satoshi Nakamoto and started in 2009. Market cap of bitcoin in end of 2020 around \$150 billion and held \$23.72 billion coins. Bitcoin is accepted as a legitimate means of exchange. Many companies accept Bitcoin as a legal tender in payments, though most partner with an exchange to convert Bitcoin into U.S. dollars before receiving their funds.

##### B. Lite coin (LTC)

Lite coin is a peer-to-peer crypto currency was started in 2011 and open-source software project. Such coin Creation and transfer based on an open source cryptographic protocol and is not managed and controlled by any central authority of particular country. Lite coin uses the same basic structure as Bit coin but the encryption algorithm is slightly different. Lite coin is often the second- or third-most popular crypto currency by market capitalization.

##### C. Ripple (XRP)

Ripple launched in 2012 by Arthur Britto, David Schwartz and Ryan fuggger. In ripple cryptocurrency exchange and remittance network created by ripple labs inc. it also called as Ripple transaction protocol (RTXP)/Ripple protocol. Ripple is simply transformed into other crypto currencies and convert Ripple units into U.S. dollars, Japanese yen, British euro, and other common currencies. Conversely critics have noted that Ripple network and code are more subject to manipulation by sophisticated hackers. It may not provide the similar anonymity protections like Bit coin-derived crypto currencies. In 2019 it was the third largest coin by market capitalization of \$10.36 billion.

##### D. Ethereum (ETH)

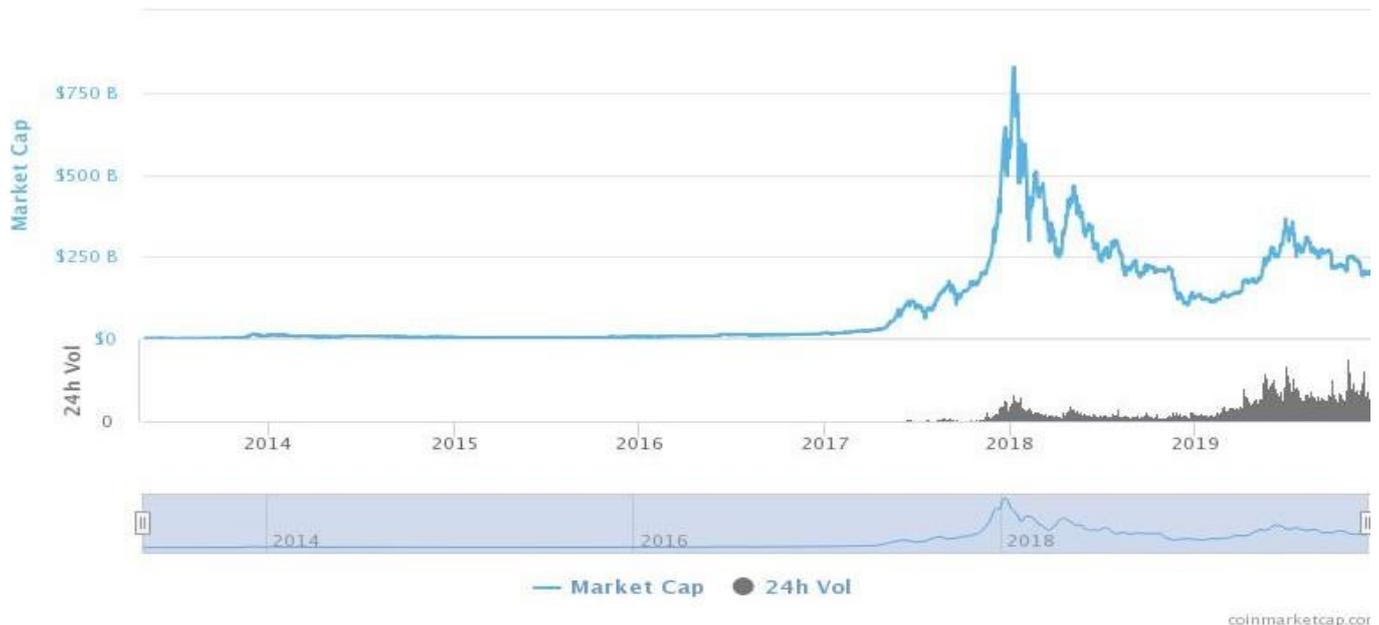
Ethereum was launched in 2015. It provides notable improvements on Bit coin's basic architecture. Ethereum is an open source public that uses block chain technology and smart contract. In smart contracts signify an important move toward deal with the lack of charge backs and refunds in crypto currencies and enough try to solve the problem completely. Ethereum aggressive growth may be overtake bitcoin in usage. In 2019 it was the second largest coin by market capitalization of \$19.20 billion.

### E. Doge coin (DOGE)

Doge coin was commenced as a "joke currency" on 2013. It denoted by its instantly identifiable Shiba Inu mascot. In compared to other crypto currency Doge coin had a fast initial coin production schedule. In 2015 100 billion coins were in circulation with additional 5.256 billion coins every year thereafter. Doge coin is prominent as an experiment in inflationary crypto currency and professional are examining it closely to see how its long-term value path differs from that of other crypto currencies.

## VI. PRESENT SCENARIO OF CRYPTO CURRENCY

More than 2,200 different crypto currencies are traded publicly, according to CoinMarketCap.com, a market research website. And crypto currencies continue to proliferate, raising money through initial coin offerings, or ICOs. There are approximately 2,957 crypto currencies being traded with a total market capitalisation of \$221 billion (2019). Top 10 crypto currencies covered 85% of the total market value. Most dominance digital currencies, was pegged at around 67% of coin market.



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

## VII. PROSPECTS OF CRYPTO CURRENCY

### 1. Prevention Inflation

Cryptocurrencies are created with a set number (Limited), which keeps the amount of new tender low, preventing inflation. Therefore, political force, Central bank, government and corporation are not able to change this order. There is no possibility for the scope of inflation in the system.

### 2. Global Access

It's reachable everywhere in the globe and are not limited to those with access to a bank. Crypto currencies are decentralized nature are nature not subject to the exchange rates, interest rates, transaction charges and other levies imposed by the specific government. Another major benefit is relative to international transactions involving fiat currency; direct international money transfers may be costly because fees sometimes may be exceeding 10% or 15% of the transferred amount.

### 3. Transparent transactions

Crypto currency associated with the features of transparency, it known as pseudo-anonymous. Transparency helps build security, trust creates a level playing field. One of the major benefits of crypto currency is that once a transaction takes place, thanks to the open ledger, block chain, the transaction is recorded, verified, irreversible and impossible to change.

### 4. Not easily taxable

Crypto currencies are managed and controlled by decentralization level. It cannot be controlled by any central government. Therefore it's free from the different kind of levies imposed by different countries.

### 5. Easily transferable

The amount of currency is easily transfer and all transactions taken place instantly. Because of its decentralized nature tokens and digital coins are confirmed under the block chain and cannot be counterfeited.

### 6. Impossible to forge/Highly secured

Crypto currency associated with decentralized nature, tokens and digital coins are verified under block chain technology and cannot be counterfeited.

### 7. Cheaper than traditional electronic transaction cost

Fiat currency charge varying fees for different reasons such as transfer fees, monthly maintenance, withdrawal charge, international banking fees and overdraft charges etc but in case of Crypto currencies are subject to low fees on transactions for network costs. Crypto currency transaction fees are generally less than 1% of the transaction value, while 1.5% to 3% for credit card payment processors and PayPal.

## 8. Huge Reward

Crypto currency market is highly volatile it may be provide high reward. E.g. in 2009 price of per bit coin was \$5.02 and in 2017 bit coin reach at \$20,089.

## 9. Decentralised currency

Crypto currency make trading anywhere in the world easy.

## 10. Create new investment alternatives

Generally person selects traditional investment alternatives. Especially in case of cash peoples always preferred investment in fiat currency. But exchange values of fiat currency depend on demand and supply on financial market. Sometime such think may be lead to depreciation of currency value e.g. Vietnam dong. If values of currency constantly fall in that condition investment cryptocurrency prevent peoples from depreciation because such currency trade on international level it cannot be affected by the depreciated value of the any particular country currency.

## 11. Asset Transfers

Block chain crypto currency ecosystem used to facilitate specialist modes of transfer. For example, crypto currency contracts can be intended to add third party approvals, make reference to external facts be completed at a specified date or time in the future. Crypto currency holder have restricted governance of own account, this reduce the time and expense carried in making asset transfers.

## VIII. PITFALLS OF CRYPTO CURRENCY

### 1. Lack of Regulation Prompt Illegal Activity

Decentralisation is considered to be a biggest drawback of crypto currency. In Absence of regulatory concern its ability to facilitate prohibited activity such as terrorism, black money and money laundering etc. For example, the infamous dark web market place Silk Road used Bit coin to assist illegal drug purchases and other prohibited activities before being close down in 2014. The same strengths that make crypto currencies difficult for governments to capture and track allow criminals to operate with relative ease though. It should be prominent that the founder of Silk Road is now behind bars thanks to a years-long DEA investigation.

### 2. Cyber security issue

Crypto currency will be subject to cyber security breaches and may fall into the hands of hackers. Mitigating this will require continuous upkeep of security infrastructure.

### 3. Potential for Tax Evasion in Some Jurisdictions

Such currencies cant managed by any governments and usually exist outside their direct control. Hence they obviously attract tax evaders. Few small employers pay employees in bit coin and other crypto currencies to keep away from liability for payroll taxes and facilitate workers avoid income tax liability. While in online selling often allow crypto currencies to avoid sales and income tax liability. According to the IRS, the U.S. government applies the similar taxation rule to all crypto currency payments to U.S. persons and businesses. Conversely, many countries don't adopt any policies regarding crypto currency. And the feature of anonymity of crypto currency build tax law violations, particularly those involving pseudonymous online sellers difficult to track.

### 4. Lack of inherent value

High price volatility tied to a lack in inherent value is a major problem and one of the specified that buffet to specifically a few weeks ago when it characterized the crypto currency eco system as a double. Currency holders effectively control these currencies' supplies, making them susceptible to wild value swings and outright manipulation. Though, even widely traded crypto currencies are subject to price volatility. For instance Bitcoin's value doubled several times in 2017, then divide during the first few weeks of 2018. Crypto currency supporters whispered that if properly secured then digital alternative currencies promised to support a decisive shift away from physical cash. Such lead to imperfect and inherently risk.

### 5. Due to Data Loss

Under the block chain technology crypto currency users take proper precautions to protect data loss. For example, users who store their private keys on single physical storage devices suffer irreversible financial damage when the device is lost or stolen. Even coin holders who store their data with a single cloud service can face loss, if the server is physically damaged or disconnected from the global Internet.

### 6. Habitually Can't Be Exchanged for Fiat Currency

Usually, only the most popular crypto currencies those with the highest market capitalization term of dollar have dedicated online exchanges that authorize direct exchange for fiat currency. Thus can't be directly exchanged with fiat currencies. Instead users have to convert them into more commonly used crypto currencies such as Bit coin before fiat currency conversion. By increasing exchange transactions' cost these contain demand for and thus the value of some slighter used crypto currencies.

### 7. No Facility for Charge backs or Refunds

In traditional payment processors and credit card networks such as Visa and Master Card often step in to resolve buyer-seller disputes. Their arrange facilities of refund, chargeback. Policies are exclusively designed to prevent seller fraud. While crypto currency miners serve as quasi-intermediaries for crypto currency transactions. They are not accountable for arbitrating clash between transacting parties like seller and buyer. In simple sense no one to appeal to if there are cheated in a crypto currency transaction.

### 8. Collision on real monetary systems

Virtual currency systems are indirectly connected with real world monetary system. They can influence the demands and supply conveniences of actual world money. For example, allows users to acquire virtual and real goods and services with virtual currency in some platforms may condense the demands on real money. Users will use virtual currency alternative fiat currency. On the other hand facilitate users to convert their virtual currency with real currency and such thing will enhance the demands on real world currency. Such variation will affect on the real monetary systems.

### 9. Unknown identity risks

Virtual currency platforms such as social games and social networks are not legitimate. Gamers, holders or users can create more than one account with unknown identities and use them for illegal transactions. It is difficult to recognize the source of creating or cashing out the virtual currencies. Thus result to inability to track the transactions in case of money laundering suspicion. Additionally unknown will enable criminals to get paid with virtual currency for their crimes.

### 10. Not yet popular

Most of people still don't understand how crypto currencies can be used. Currently not many people who use crypto currencies and most businesses can't accept them as a form of fiat currency in payment, so use is still restricted.

## IX. CONCLUSION

The main concern of the paper was to determine the benefits of cryptocurrency such decentralization network, cryptography, transparency, low transaction cost, security, high reward, global access and prevention of inflation. Cryptocurrency is not free from drawback it also discuss the drawback of cryptocurrency such as lack regulation, prompt illegal activity, money laundering, unknown identity, cyber security and lack of inherent value of money etc.

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